

OPERATIONS & MAINTENANCE with National Program O&M

KEY TO ABBREVIATIONS:

N = NAVIGATION

FRM = FLOOD RISK MANAGEMENT

RC = RECREATION

H = HYDROPOWER

EN = ENVIRONMENT

WS = WATER SUPPLY

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APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Inspection of Completed Works

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-Federal sponsor to identify the "items of local cooperation" for Corps projects, including operation and maintenance (O&M) requirements. It also authorizes the Corps to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes, if the Corps has first notified the non-Federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform."

LOCATION AND DESCRIPTION: The program covers all 50 states and territories of the U.S. The Inspection of Completed Works (ICW) activities encompass all Federally constructed and locally maintained flood risk management projects. Because of the potential risk to life safety, the majority of ICW activities focus on approximately 11,750 miles of Federally authorized and locally maintained levee systems.

FISCAL YEAR 2016 ALLOCATION: \$28,914,000

DESCRIPTION OF WORK FOR FY 2016: The Inspection of Completed Works activities encompass all Federally constructed and primarily locally maintained flood risk reduction projects that meet the Corps condition requirements. The Inspection of Completed Works Program is now guided by the Levee Safety Program. One of the main activities includes inspections of federally authorized projects operated and maintained by a non-Federal sponsor. These inspections determine if the project will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities will include updating information in the National Levee Database; screening levees to rank them in order of risk; conducting pre-storm inspections of Federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with Corps policy and guidance for such proposals i.e. Section 208/408 proposals; and updating project operation and maintenance manuals.

FISCAL YEAR 2017 ALLOCATION: \$31,986,000

DESCRIPTION OF WORK FOR FY 2017: The Inspection of Completed Works activities encompass all Federally constructed and locally maintained flood risk management projects. The Inspection of Completed Works Program is now guided by the Levee Safety Program. One of the main activities includes inspections of Federally authorized projects operated and maintained by a non-Federal sponsor. The purposes of these inspections are to identify deficiencies or areas which need monitoring or immediate repair; to identify any changes over time; and to collect information in order to be able to make informed decisions about future actions. Other activities will include updating information in the National Levee Database; screening levees to rank them in order of risk; conducting pre-storm inspections of Federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with Corps policy and guidance for such proposals i.e. Section 408 proposals; and updating project operation and maintenance manuals.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$30,205,000 T: \$30,205,000 1/

STATE	FY 2016 Allocations	FY 2017 Budget	FY 2018 Total
Alaska	\$178,000	\$225,000	\$200,000
Alabama	\$64,000	\$215,000	\$210,000

Division: National

District: National

Inspection of Completed Works

Arkansas	\$533,000	\$490,000	\$458,000
Arizona	\$70,000	\$96,000	\$85,000
California	\$3,726,000	\$3,588,000	\$3,962,000
Colorado	\$360,000	\$376,000	\$352,000
Connecticut	\$332,000	\$345,000	\$461,000
District of Columbia	\$159,000	\$72,000	\$76,000
Delaware	\$40,000	\$58,000	\$65,000
Florida	\$1,435,000	\$1,272,000	\$958,000
Georgia	\$188,000	\$227,000	\$277,000
Hawaii	\$718,000	\$600,000	\$698,000
Iowa	\$754,000	\$1,370,000	\$868,000
Idaho	\$373,000	\$361,000	\$337,000
Illinois	\$2,354,000	\$2,560,000	\$1,654,000
Indiana	\$1,113,000	\$1,316,000	\$1,187,000
Kansas	\$935,000	\$1,206,000	\$1,218,000
Kentucky	\$965,000	\$1,301,000	\$1,271,000
Louisiana	\$1,025,000	\$962,000	\$866,000
Massachusetts	\$478,000	\$328,000	\$307,000
Maryland	\$174,000	\$119,000	\$196,000
Maine	\$60,000	\$104,000	\$95,000
Michigan	\$208,000	\$215,000	\$222,000
Minnesota	\$329,000	\$408,000	\$401,000
Missouri	\$1,402,000	\$1,606,000	\$1,305,000
Mississippi	\$91,000	\$110,000	\$86,000
Montana	\$204,000	\$274,000	\$232,000
North Carolina	\$257,000	\$199,800	\$205,000
North Dakota	\$329,000	\$375,000	\$374,000
Nebraska	\$500,000	\$1,213,000	\$932,000
New Hampshire	\$55,000	\$71,000	\$60,000
New Jersey	\$203,000	\$339,000	\$427,000
New Mexico	\$643,000	\$650,000	\$652,000
Nevada	\$74,000	\$77,000	\$68,000
New York	\$1,170,000	\$1,011,000	\$1,351,000
Ohio	\$690,000	\$836,000	\$874,000
Oklahoma	\$140,000	\$221,000	\$239,000
Oregon	\$1,030,000	\$1,066,000	\$1,082,000
Pennsylvania	\$1,167,000	\$932,000	\$1,117,000
Puerto Rico		\$281,000	\$228,000
Rhode Island	\$43,000	\$52,000	\$45,000
South Carolina	\$64,000	\$65,000	\$65,000
South Dakota	\$167,000	\$325,000	\$279,000
Tennessee	\$180,000	\$309,000	\$334,000
Texas	\$1,918,000	\$1,701,000	\$1,587,000
Utah	\$40,000	\$40,000	\$24,000
Virginia	\$310,000	\$372,200	\$364,000
Virgin Islands		\$170,000	\$24,000
Vermont	\$46,000	\$88,000	\$172,000
Washington	\$1,076,000	\$1,150,000	\$1,057,000
Wisconsin	\$51,000	\$54,000	\$55,000
West Virginia	\$420,000	\$466,000	\$463,000
Wyoming	\$73,000	\$118,000	\$80,000
TOTAL PROGRAM	\$28,914,000	\$31,986,000	\$30,205,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

FRM: \$30,205,000 – The Inspection of Completed Works activities encompass all Federally constructed and locally maintained flood risk management projects. Because of the potential risk to life safety, the majority of ICW activities focus on Federally authorized and locally maintained levee systems, which include approximately 11,750 miles of levees. The ICW activities are essential to insure that Federally authorized flood risk management projects are properly operated and maintained by non-Federal sponsors and are functioning as intended to obtain the maximum benefits.

OTHER INFORMATION:

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,222,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2016 from prior appropriations for use on this effort is \$0. Does not include MR&T.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Project Condition Surveys

AUTHORIZATION: Public Law 85-480, approved in 1958 authorizes the Chief of Engineers to publish information, including condition surveys that may be of value to the general public.

LOCATION AND DESCRIPTION: The budget for FY2018 includes 35 states and 2 territories of the U.S. with coastal and inland navigation responsibilities. This national program consists of performing hydrographic and topographic Project Condition Surveys (PCS) for Federally-authorized navigation projects on a state-by-state basis. Hydrographic and topographic surveys are conducted for navigation channels, inlets, anchorages, structures such as jetties and breakwaters, and other navigation features within the states.

FISCAL YEAR 2016 ALLOCATION: \$17,572,000

DESCRIPTION OF WORK FOR FY 2016: Hydrographic and topographic surveys of Federal navigation channels and structures in FY 2016 were performed based upon channel usage, shoaling rates, maintenance dredging schedules, and condition of structures. The information on navigation channel conditions was disseminated to users of the waterways and used to plan future channel and structure maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$19,239,000

DESCRIPTION OF WORK FOR FY 2017: Hydrographic and topographic surveys of Federal navigation channels are planned for FY 2017 in order to ascertain channel and structure conditions and disseminate the conditions to users of the waterways and to plan future channel and structure maintenance activities. Funds are also used to respond to unanticipated needs, including concerns raised by the U.S. Coast Guard, local harbor masters, or other agencies regarding projects that have become shoaled as a result of severe storms and/or abnormal deposition rates that may have compromised safe navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$19,682,000 T: \$19,682,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$19,682,000 – Hydrographic and topographic surveys of Federal navigation channels and structures are planned for FY 2018 in order to ascertain channel and structure conditions and disseminate the conditions to users of the waterways. Funds are also used to respond to unanticipated needs, including concerns raised by the U.S. Coast Guard, local harbor masters, or other agencies regarding projects that have become shoaled as a result of severe storms and/or abnormal deposition rates that may have compromised safe navigation.

STATE	FY 2016 ALLOCATION AMOUNT	FY 2017 BUDGETED AMOUNT	FY 2018 BUDGETED AMOUNT
Alaska	\$693,000	\$700,000	\$750,000
Alabama	\$146,000	\$190,000	\$149,000
Arkansas	\$2,000	\$1,000	\$1,000
California	\$1,576,000	\$1,698,000	\$1,433,000
Connecticut	\$841,000	\$850,000	\$850,000
District of Columbia	\$25,000	\$25,000	\$25,000
Delaware	\$198,000	\$200,000	\$200,000
Florida	\$1,411,000	\$1,425,000	\$1,375,000

Division: National

District: National

Project Condition Surveys

STATE	FY 2016 ALLOCATION AMOUNT	FY 2017 BUDGETED AMOUNT	FY 2018 BUDGETED AMOUNT
Georgia	\$110,000	\$128,000	\$100,000
Hawaii	\$790,000	\$706,000	\$752,000
Illinois	\$103,000	\$105,000	\$104,000
Indiana	\$183,000	\$185,000	\$185,000
Kentucky	\$2,000	\$1,000	\$1,000
Louisiana	\$46,000	\$54,000	\$54,000
Massachusetts	\$1,041,000	\$900,000	\$1,000,000
Maryland	\$396,000	\$450,000	\$450,000
Maine	\$889,000	\$1,100,000	\$1,000,000
Michigan	\$703,000	\$720,000	\$746,000
Minnesota	\$87,000	\$93,000	\$96,000
Missouri	\$2,000	\$1,000	\$1,000
Mississippi	\$149,000	\$151,000	\$151,000
North Carolina	\$643,000	\$700,000	\$700,000
New Hampshire	\$298,000	\$250,000	\$300,000
New Jersey	\$984,000	\$1,944,000	\$2,017,000
New York	\$1,717,000	\$2,252,000	\$2,323,000
Ohio	\$302,000	\$305,000	\$305,000
Oregon	\$396,000	\$400,000	\$400,000
Pennsylvania	\$168,000	\$170,000	\$170,000
Puerto Rico	\$0	\$0	\$150,000
Rhode Island	\$346,000	\$350,000	\$300,000
South Carolina	\$866,000	\$875,000	\$875,000
Tennessee	\$2,000	\$1,000	\$1,000
Texas	\$147,000	\$224,000	\$323,000
Virginia	\$1,435,000	\$1,163,000	\$1,195,000
Virgin Islands	\$0	\$0	\$100,000
Washington	\$574,000	\$612,000	\$779,000
Wisconsin	\$301,000	\$310,000	\$321,000
TOTAL PROGRAM	\$17,572,000	\$19,239,000	\$19,682,000

OTHER INFORMATION: PCS are also used in the decision making process for future channel maintenance. The selection of which projects to survey and scheduling of surveys is based upon channel usage, shoaling rates, maintenance dredging schedules, and when that project was last surveyed. The surveys are generally conducted on a rotational basis, taking into account the expected sedimentation rates and historic maintenance. This generally includes projects that do not routinely receive O&M appropriations and that are not regularly maintained. For those projects scheduled to be dredged or maintained in the budget year, funds for PCS of the project are included with that project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,154,000. There was an additional \$41,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2016 from prior appropriations for use on this effort is \$0.

Division: National

District: National

Project Condition Surveys

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Surveillance of Northern Boundary Waters

AUTHORIZATION: Boundary Waters Treaty of 1909

LOCATION AND DESCRIPTION: Program work is located across the entire Canada-United States Northern Boundary Waters covered under the International Boundary Waters Treaties and other International agreements between the U.S. and Canada. The main activities conducted under the Surveillance of Northern Boundary Waters Program is the support of the Boundary Waters Treaty of 1909, including technical and secretarial support of the International Joint Commission (IJC), its Boards of Control, Committees, and other various study boards. Activities are centered supporting the principles and mechanisms to help resolve disputes and to prevent future ones, primarily those concerning water quantity and water quality along the boundary between Canada and the United States.

FISCAL YEAR 2016 ALLOCATION: \$10,128,000

DESCRIPTION OF WORK FOR FY 2016: Description by regional command of the US Army Corps of Engineers is as follows:

Great Lakes and Ohio River Division (LRD): Surveillance of Northern Boundary Waters (SNBW) activities contributed to meeting the Corps mission to support the U.S. State Department and the IJC in carrying out the requirements of the 1909 Boundary Waters Treaty, The Great Lakes Water Quality Agreement, and the 1950 Niagara River Diversion Treaty between the governments of Canada and the U.S. Specifically, FY 2016 funds will be used for continual monitoring and management of water from Lake Superior and Lake Ontario, as well as water through the Niagara River. Funds were used for Corps participation in the International Lake Superior Board of Control, the International Niagara Board of Control, the International St. Lawrence River Board of Control, the International Niagara Committee, and the Science Advisory Board. In addition, funds will be used to lead and support the monitoring, modeling, and assessment related to the ongoing evaluation of the regulation plans under the Great Lakes and St. Lawrence River Adaptive Management (GLAM) Committee, recently established by IJC directive.

Mississippi Valley Division (MVD): In addition to ongoing areas of work, 21 studies were funded by the International Joint Commission (IJC) to support a rule curve review for Rainy Lake. The rule curve review study board will be co-chaired by the St Paul District through March 2017.

North Atlantic Division (NAD): FY 2016 funds were used for the New England District Engineer to attend the International Saint Croix River Board of Control meetings and for district staff to coordinate with Board members on the ecological health, lake levels, and river flows.

Northwestern Division (NWD): **Northwestern Division (NWD):** Activities include funding District and Division work associated with IJC activities for the Kootenay Lake, existing Columbia River Treaty implementation and reporting, and Columbia River Treaty 2024 flood risk activities to support the U.S. Entity and the Interagency Policy Committee.

FISCAL YEAR 2017 ALLOCATION: \$11,141,000

DESCRIPTION OF WORK FOR FY 2017: Description by regional command of the US Army Corps of Engineers is as follows:

LRD: Surveillance of Northern Boundary Waters (SNBW) activities contributed to meeting the Corps mission to support the U.S. State Department and the IJC in carrying out the requirements of the 1909 Boundary Waters Treaty, The Great Lakes Water Quality Agreement, and the 1950 Niagara River Diversion Treaty between the governments of Canada and the U.S. Specifically, Funds were used for continual monitoring and management of water from Lake Superior and Lake Ontario, as well as water through the Niagara River. Funds were used for Corps participation in the International Lake Superior

Division: National

District: National Surveillance of Northern Boundary Waters

Board of Control, the International Niagara Board of Control, the International St. Lawrence River Board of Control, the International Niagara Committee, and the Science Advisory Board. In addition, funds were used to lead and support the monitoring, modeling, and assessment related to the on-going evaluation of the regulation plans under the Great Lakes and St. Lawrence River Adaptive Management (GLAM) Committee, recently established by IJC directive.

MVD: In addition to ongoing areas of work, 21 studies were funded by the International Joint Commission (IJC) to support a rule curve review for Rainy Lake. The rule curve review study board was co-chaired by the St Paul District through March 2017. A 2014 Rainy Lake post flood report was written and provided to the IJC in April 2015. The Souris River 1989 International Agreement was reviewed and draft recommendations are scheduled to be provided to the IJC in October 2015.

NAD: Funds were used for the New England District Engineer to attend the International Saint Croix River Board of Control meetings and for district staff to coordinate with Board members on the ecological health, lake levels, and river flows.

NWD: Activities include funding District and Division work associated with International Joint Commission (IJC) activities for the Kootenay Lake, existing Columbia River Treaty implementation and reporting, and Columbia River Treaty 2024 flood risk activities to support the U.S. Entity and the Interagency Policy Committee.

BUDGETED AMOUNT FOR FY 2018: M: \$ 0 O: \$6,575,000 T: \$6,575,000 1/

STATE	ALLOCATIONS FOR FY 2016	BUDGETED AMOUNT FOR FY 2017	BUDGETED AMOUNT FOR FY 2018
Illinois	\$582,000	\$719,000	\$738,000
Indiana	\$140,000	\$143,000	\$149,000
Maine	\$25,000	\$25,000	\$30,000
Michigan	\$2,760,000	\$2,825,000	\$2,912,000
Minnesota	\$485,000	\$490,000	\$509,000
North Dakota	\$32,000	\$30,000	\$82,000
New York	\$610,000	\$610,000	\$610,000
Ohio	\$255,000	\$255,000	\$255,000
Oregon	\$4,510,000	\$5,300,000	\$525,000
Pennsylvania	\$105,000	\$105,000	\$105,000
Washington	\$63,000	\$64,000	\$64,000
Wisconsin	\$561,000	\$575,000	\$596,000
TOTAL PROGRAM	\$10,128,000	\$11,141,000	\$6,575,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

LRD: Specific activities within the Great Lakes region support U.S. obligations under International Boundary Waters Treaty of 1909 and 1950 Niagara Treaty. Engineering and technical support include the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data; International Superior Board which includes the monthly regulation of Lake Superior; International St. Lawrence River Board which includes the weekly regulation of Lake Ontario and lake level forecasting on a weekly and monthly basis; International Niagara Board which includes the monitoring and oversight of the Lake Erie ice boom, Niagara Control Structure, and Niagara Falls flows; connecting channel depths forecasts bi-weekly; continuous monitoring of basin conditions and formalizing into annual summary report; collection and dissemination of basin data; hydraulic modeling of the connecting channels and impact analyses due to dredging, construction or other projects; derivation of stage-discharge relationships for the connecting

Division: National

District: National Surveillance of Northern Boundary Waters

channels; computation of official outflows from the Great Lakes; computation of net basin supplies for the Great Lakes; water level gauging of the connecting channels; collection of sediment data to model sediment transport on the connecting channels; hydraulic discharge measurements and hydropower inspections to support treaty requirements and water use agreements; implementing adaptive management and, coastal process monitoring. All of the above missions are ongoing areas of work. Upcoming efforts include: continued support for IJCs decision making and implementation efforts with regard to Plan 2012 and Plan 2014 (the new regulation plans for Lake Superior and the St. Lawrence River respectively); implementing adaptive management which will include membership on recently created Adaptive Management Committee requiring development of new tools required to evaluate regulation plan performance; continued improvements to (and documentation of) forecasting operations, inclusion of new data sets and analyses techniques; continued improvements to hydraulic models including the addition of ice and weed retardation; and, more intensive monitoring of daily changes in basin hydro-meteorological parameters.

MVD: Current activities involve the 1925 Lake of the Woods Convention and Protocol, the 1938 Rainy Lake Convention, and the 1989 Souris River International Agreement for Water Supply and Flood Control between the U.S. and Canada. These activities include monitoring daily lake levels and outflows; monitoring and approving international apportionment of water; forecasting lake levels and river flows during periods of high or low water; serving as U.S. Co-secretary and U.S. Co-chair of the International Rainy-Lake of the Woods Watershed Board (IRLWWB); serving as a member of the International Souris River Board (ISRB); serving on the ISRB hydrology committee; Serving as Co-chair of the International Lake of the Woods Control Board (ILWCB); Serving as the engineering advisor and secretary to the IRLWCB; participating in Board and public meetings for the ISRB, IRLWWB, and ILWCB; preparing annual board reports; briefing and advising the International Joint Commission; coordinating activities of the IRLWWB Industry Advisory Group and the IRLWWB Community Advisory Group; collecting, analyzing, and maintaining hydrometeor logic data, including post-flood reports; monitoring flood operations; assisting in transboundary dispute resolution; reviewing the 1989 Souris River International Agreement; and preparing and disseminating information to the public.

NAD: NAE District Engineer is U.S. Section member of the International Saint Croix River Board of Control and a member of the Engineering/Planning Branch of the New England District serves as the Secretary of the U.S. Section. Periodic meetings, including public meetings, take place on both the American and Canadian sides. Funding is used to monitor the ecological health of the river and to ensure that lake levels and river flows are maintained within established levels.

NWD: Activities include funding Seattle District work associated with IJC activities for the Kootenay Lake Board of Control and the Osoyoos Lake Board of Control. Work includes preparation of Annual Reports, monitoring Kootenay Lake and basin conditions for compliance with the 1938 IJC Order on Kootenay Lake, preparing for and attending Board and public meetings, and responding to miscellaneous issues and questions raised by the public, agencies, the Boards, and the IJC.

OTHER INFORMATION: Many stakeholders exist in the basin and are regularly served by these missions including: commercial navigation (e.g., Lake Carriers Association); hydropower production; recreational boating; shoreline property owners; academic and research institutions; other Federal agencies; state and local agencies; non-governmental organizations; environmental interest groups; and private citizen groups

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$372,000. There was an additional \$59,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0. Does not include MR&T.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Inspection of Completed Environmental Projects

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-Federal sponsor to identify the "items of local cooperation" for Corps projects, including operation and maintenance (O&M) requirements. It also authorizes the Corps to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes, if the Corps has first notified the non-Federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform." The Corps undertakes inspections of completed environmental projects to determine whether the non-Federal sponsor is performing as agreed.

LOCATION AND DESCRIPTION: The program covers all 50 states and territories of the U.S. Since the initial nationwide authorization of multiple authorities for ecosystem restoration, beginning with Section 1135 of Water Resources and Development Act of 1986, the Corps and its sponsors have constructed many ecosystem restoration projects that have resulted in the restoration of over 90,000 acres of significant habitat for a wide variety of species. While the focus is restoration to a more functional and less degraded natural habitat, most projects have features which require O&M. However, for almost all ecosystem restoration projects, the O&M of completed environmental projects is the non-federal sponsor's responsibility.

FISCAL YEAR 2016 ALLOCATION: \$242,000

DESCRIPTION OF WORK FOR FY 2016: The FY 2016 funds were used to fund project inspections to determine if the sponsors are meeting the requirements in the Project Partnership Agreements and project O&M manuals. The degree of the success of the restoration projects was noted. These inspections included projects in the Mississippi Valley Division, the North Atlantic Division, Northwestern Division, South Atlantic Division, and South Pacific Division.

FISCAL YEAR 2017 ALLOCATION: \$91,000

DESCRIPTION OF WORK FOR FY 2017: The Inspection of Completed Environmental Project activities focus on federally constructed and primarily sponsor maintained ecosystem restoration projects. The main activity consists of inspection of completed federally authorized ecosystem restoration projects which are operated and maintained by the project sponsor. These inspections determine if the project is performing as expected and whether the project is being operated in accordance with requirements in the Project Partnership Agreements and project O&M manuals. This will include inspection of completed ecosystem restoration projects in California, Iowa, Kansas, Missouri, Nebraska, New Jersey, and Pennsylvania. Inspections also identify changed conditions within the project, undocumented project deficiencies, and project areas or features that require future additional inspection or monitoring. Funding is used to conduct pre-inspection preparation, post inspection reporting, and notification requirements to the sponsor. Additional activities include adding the inspection report in the National Ecosystem Restoration Project Database. A key consideration of the program is that information collected is used to inform future project development and design.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$317,000 T: \$317,000 1/

STATE	FY 2016 Allocations	FY 2017 Budgeted Amount	FY 2018 Budgeted Amount
California		\$6,000	
Connecticut	\$9,900		\$10,000
Georgia	\$11,880		\$15,000
Iowa		21,000	6,000
Illinois	49,500		55,000

Division: National

District: National

Inspection of Completed Environmental Projects

Kansas		4,000	11,000
Massachusetts	19,800		20,000
Maine	4,950		5,000
Missouri		2,000	2,000
Nebraska		\$33,000	\$3,000
New Jersey		\$15,000	\$15,000
New Mexico	\$19,800		
Oregon	\$19,800		\$60,000
Pennsylvania		\$10,000	\$10,000
Rhode Island	\$24,750		\$25,000
Washington	\$69,300		\$70,000
Wyoming	\$11,880		\$10,000
TOTAL PROGRAM	\$241,560	\$91,000	\$317,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

EN: \$317,000 – Funds will be used to perform project inspections in states where project assessments are most needed and critical. Consistent with FY 2017 work, inspections will be completed to determine if the projects are performing as expected and whether the projects are being operated in accordance with requirements in the Project Partnership Agreements and project O&M manuals. Funding will be used to conduct pre-inspection preparation, post inspection reporting, and notification requirements to the sponsor. Completed inspection reports will be added to the National Ecosystem Restoration Project Database The ICW activities are essential to insure that federally authorized ecosystem restoration projects are properly operated and maintained and are functioning as designed.

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$292,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2017 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Scheduling Reservoir Operations

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The program covers all states and territories of the U.S. This nationwide program is to facilitate and coordinate the operations of Federal and non-Federal dams that have a Federal interest and investment in providing dedicated flood space.

FISCAL YEAR 2016 ALLOCATION: \$6,311,000

DESCRIPTION OF WORK FOR FY 2016: Details by regional command of the US Army Corps of Engineers are as follows:

North Atlantic Division (NAD): Funds were used to manage and operate stream gages, rain gages, and reservoir level gages for use by the Corps, partner agencies (US Geologic Survey (USGS), National Weather Service (NWS), Susquehanna River Basin Commission (SRBC)) and the public for flood forecasting and reservoir regulating.

Northwestern Division (NWD): Funds were used to support Districts' actions as necessary for management of non-Corps dams where the Corps has flood control responsibilities.

South Atlantic Division (SAD): Funds were used to support labor needed to coordinate with Sponsor on water related management activities to achieve maximum benefits on monitoring of water control plans

South Pacific Division (SPD): Funds were used to support the congressionally required data collection and reporting for projects authorized in Section 7 of the Flood Control Act of 1944. The data also support operational decisions, environmental monitoring, and drought contingency actions.

Southwestern Division (SWD): Funds were used to manage and operate stream gages, rain gages, and reservoir level gages for use by the Corps, partner agencies (US Geologic Survey (USGS), National Weather Service (NWS)) and the public for flood forecasting and reservoir regulating. The resulting data supported operational decisions, environmental monitoring, and drought contingency actions.

FISCAL YEAR 2017 ALLOCATION: \$6,403,000

DESCRIPTION OF WORK FOR FY 2017: Details by regional command of the US Army Corps of Engineers are as follows:

North Atlantic Division (NAD): Funds were used to manage and operate stream gages, rain gages, and reservoir level gages for use by the Corps, partner agencies (US Geologic Survey (USGS), National Weather Service (NWS), Susquehanna River Basin Commission (SRBC)) and the public for flood forecasting and reservoir regulating.

Northwestern Division (NWD): Funds were used to support Districts' actions as necessary for management of non-Corps dams where the Corps has flood control responsibilities.

South Atlantic Division (SAD): Funds were used to support labor needed to coordinate with Sponsor on water related management activities to achieve maximum benefits on monitoring of water control plans

South Pacific Division (SPD): Funds were used to support the congressionally required data collection and reporting for projects authorized in Section 7 of the Flood Control Act of 1944. The data also support operational decisions, environmental monitoring, and drought contingency actions.

Southwestern Division (SWD): Funds were used to manage and operate stream gages, rain gages, and reservoir level gages for use by the Corps, partner agencies (US Geologic Survey (USGS), National Weather Service (NWS)) and the public for flood forecasting and reservoir regulating. The resulting data supported operational decisions, environmental monitoring, and drought contingency actions.

BUDGETED AMOUNT FOR FY 2018: M: \$850,000 O: \$6,167,000 \$ T: \$7,017,000 1/

STATE	FY 2016 Allocation Amount	FY 2017 Budgeted Amount	FY 2018 Budgeted Amount
Alabama	\$0	\$100,000	\$83,000
Arizona	\$132,000	\$102,000	\$102,000
California	\$1,297,000	\$1,198,000	\$1,391,000
Colorado	\$374,000	\$576,000	\$646,000
Florida	\$33,000	\$33,000	\$99,000
Idaho	\$617,000	\$640,000	\$627,000
Kansas	\$287,000	\$369,000	\$369,000
Maryland	\$60,000	\$78,000	\$78,000
Montana	\$124,000	\$95,000	\$121,000
Missouri	\$89,000	\$169,000	\$169,000
North Dakota	\$126,000	\$95,000	\$121,000
New Mexico	\$327,000	\$213,000	\$383,000
Oklahoma	\$1,188,000	\$1,200,000	\$1,200,000
Oregon	\$85,000	\$98,000	\$98,000
Pennsylvania	\$44,000	\$35,000	\$37,000
South Dakota	\$142,000	\$107,000	\$102,000
Texas	\$268,000	\$281,000	\$332,000
Utah	\$468,000	\$506,000	\$554,000
Washington	\$419,000	\$423,000	\$425,000
Wyoming	\$231,000	\$85,000	\$80,000
TOTAL PROGRAM	\$6,311,000	\$6,403,000	\$7,017,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAD: FY 2018 funds will be used to continue the monitoring and management by Corps and USGS to operate and maintain those stream gages, rain gages, and reservoir level gages that provide the raw hydrometer data required for project regulation. Through partner agencies (USGS, NWS, SRBC, etc.), data are used for flood forecasting, studies, recreation, water supply, hydropower, etc. and made available via Internet web applications to the general public. Additional coordination with and support to Emergency Management and other District elements, other State and Local Resource Agencies and the Public is also needed during these situations. This task also provides funding for additional activities such as event-specific and required annual reports (ER 1110-2-240), permit reviews, dam operator and flood training exercises, briefings and O&M budget preparation and execution.

NWD: These funds support the Districts' portions of the Water Management budget necessary for management of non-Corps dams where the Corps has flood control responsibilities, including any dam built using Federal funds. Within NWD, the vast majority of these non-Corps dams are U.S. Bureau of Reclamation projects, but others including Wynoochee Dam and the congressionally authorized project at Upper Baker Dam are also managed with these funds. Funds are used for water control data collection for the portion of the total USGS Cooperative Stream gage Program which supports these non-Corps projects. Funding to the USGS Cooperative Stream gage Program maintains only those stream gages necessary for scheduling the release of flood control storage from these non-Corps projects for which the Corps has flood control responsibility. Funds are also used for each District's daily Water Management activities in support of these projects. This includes all aspects of daily operations within Water

Division: National

District: National

Scheduling of Reservoir Operations

Management including reservoir regulation and flood releases from these projects. These projects require District Water Management offices to develop and maintain water control plans; direct flood control operations; prepare monthly summary reports, ensure daily review of stream gages; review and comment on Bureau of Reclamation annual operating plans for use of conservation storage; maintain water control manuals, as well as review, comment and process deviations and manual change requests through Division Water Management.

SAD: Funding supports labor needed to coordinate with Sponsor on water related management activities to achieve maximum benefits on monitoring of water control plans and to coordinate with Alabama Power Company (APC) on the reservoir operations within the Alabama-Coosa-Tallapoosa Rivers system. The operations at the APC projects affect and are affected by the operations at the Corps projects within the system.

SPD: Funding supports typical activities which include data collection efforts and coordination for operational decisions, especially for flood releases, Water Control Manual updates, emergency and planned deviation requests, environmental reporting and coordination under NEPA and ESA, and other activities associated with safe operation of Section 7 dams.

SWD: Funding supports Districts' portions of routine Water Management System (Reservoir Control Center) activities to include water control data collection; portion of the total USGS Cooperative Stream gage program; and daily water management activities, including flood pool operations, which supports management of non-Corps dams where the Corps has flood control responsibilities (Section 7 projects). Also supports routine, daily operations within the Districts' water management program which is to develop and maintain water control plans; direct flood control operations; ensure daily review of stream gages; forecast during flood events; review and comment on Section 7 project annual operating plans for use of conservation storage; and review, comment and process deviations and manual change requests through Division Water Management.

OTHER INFORMATION: Many stakeholders are regularly served including: commercial navigation; hydropower production; recreational boating; shoreline property owners; academic and research institutions; other Federal agencies; state and local agencies; non-governmental organizations; environmental interest groups; and private citizen groups.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$226,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2016 from prior appropriations for use on this effort is \$0. Does not include MR&T.

ALABAMA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alabama River Lakes, AL

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: This multiple-purpose project is part of the Alabama-Coosa-Tallapoosa (ACT) River System and includes a 9 foot by 200 foot low use, inland navigation channel that extends from the mouth of the Alabama River, 45 miles north of Mobile, Alabama for 300 miles northeast to Montgomery, AL where it connects with the Coosa River. The Coosa River extends northeast another 286 miles to a point near Rome, Georgia. This project includes funding for three projects located on the Alabama River: Claiborne, Millers Ferry and Robert F. Henry Locks and Dams. Millers Ferry and Robert F. Henry both include hydropower.

FISCAL YEAR 2016 ALLOCATION: \$19,824,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of the multi-purpose project. Non-routine hydropower maintenance activities include the replacement of power transformers.

FISCAL YEAR 2017 ALLOCATION: \$14,080,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of the multi-purpose project. Non-routine maintenance activities include gantry crane rehabilitation and camper pad construction. Sustainability activities include water value replacement in 9 recreation areas.

BUDGETED AMOUNT FOR FY 2018: M: \$7,805,000 O: \$7,587,000 T: \$15,392,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,911,000 – Funds will be used for routine operations in support of navigation. There is a total of \$70,000 of sustainability work on this project to replace outdoor lighting with LED fixtures at Claiborne.

FRM: \$500,000 – Funds will be used to update the water control manuals for Weiss and Logan Martin.

RC: \$3,234,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$5,000 of sustainability work on this project to install a standard meter at the Resource Manager's Office to measure energy use.

H: \$6,825,000 – Funds will be used for routine operations and maintenance in support of hydropower. Non-routine activities include the installation of new medium voltage switchgear at Miller's Ferry (\$500,000) and replacement of the generator fire suppression system at Jones Bluff (\$250,000).

EN: \$1,016,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,906,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 45%, NAV - 22%, FRM - 18%, and REC - 15%. Non-routine activities on jointly used features include \$326,000 for Geospatial Land Data Mapping. Two hydropower plants are on the project with a total hydropower capacity of 172,000 kilowatts. The project averages over 4 million visits annually and has a five year average of 1,000 tons of reported commodities transported.

Division: South Atlantic

District: Mobile

Alabama River Lakes, AL

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,676,000. There was an additional \$35,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Warrior and Tombigbee (BWT) Rivers, AL

AUTHORIZATION: The project was authorized by various River and Harbor Acts, 1884-1986. Replacement of obsolete structures was authorized by the 1909 River and Harbor Act.

LOCATION AND DESCRIPTION: The high use, inland navigation project includes a 9 foot by 200 foot channel from Mobile Harbor, north for 426 miles, connecting the Port of Mobile with the industrial areas of Birmingham, Alabama, and serving as the corridor from the Tennessee-Tombigbee Waterway to the Gulf of Mexico and includes six locks, dams and reservoirs.

FISCAL YEAR 2016 ALLOCATION: \$42,147,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation, recreation, and environmental stewardship. Non-routine navigation maintenance included replacement of lower miter gates at Holt lock, final contract of the Selden gate installation, and geospatial land data migration mapping.

FISCAL YEAR 2017 ALLOCATION: \$24,601,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation, recreation, and environmental stewardship. Non-routine recreation maintenance includes erosion control. There is a total of \$55,000 for sustainability work on this project to replace outdoor lighting in compliance with EO 13514. In addition, funds are provided for drydock and repairs to floating plant Choctawhatchee and towboat Lawson (\$500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$16,391,000 O: \$10,826,000 T: \$27,217,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$23,233,000 – Funds will be used for routine operations and maintenance in support of navigation. Non-routine navigation activity involves installation of Holt Lock Gates (\$2,975,000) and geospatial land data migration mapping (\$526,000). In addition, funds are provided for disposal area maintenance (\$350,000) and update of water control manual (\$70,000).

FRM: N/A

RC: \$3,401,000 – Funds will be used for routine operations and maintenance in support of recreation. Non-routine work includes performing maintenance in shower houses and stabilize shoreline erosion (\$158,000).

H: N/A

EN: \$583,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship. Non-routine work includes completing the Historic Properties Management Plan (\$60,000).

WS: N/A

OTHER INFORMATION: This waterway is extremely important for the shipment of coal as an export and to support several coal-fired electric generating plants in the southeastern United States. The waterway also provides critical transportation of crude oil to an oil refinery and transportation of ore and steel for foundries. The project has a five year average of over 19.7 million tons of commodities transported and over 2.4 million visits.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$145,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway (GIWW), AL

AUTHORIZATION: Authorized House Document 670, 61st Congress, 2nd Session, Rivers and Harbors Committee, 1910, as last amended by P.L. 89-790, River and Harbor Act of 1966.

LOCATION AND DESCRIPTION: The Mobile District's portion of the GIWW extends from the Louisiana and Mississippi state line to Apalachee Bay, Florida, providing a 12 foot by 150-foot channel from Louisiana to Mobile Bay, Alabama and a 12 foot by 125-foot channel from Mobile Bay to Apalachee Bay, Florida. It is a high use, coastal waterway project.

FISCAL YEAR 2016 ALLOCATION: \$6,160,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine and non-routine operation and maintenance in support of navigation. Non-routine maintenance included geospatial land data migration mapping.

FISCAL YEAR 2017 ALLOCATION: \$6,075,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$5,994,000 O: \$540,000 T: \$6,534,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,534,000 – Funds will be used for routine operation and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Eglin, Hurlburt and Tyndall Air Force Bases receive all of their jet fuel by way of this waterway. Additionally, all of the fuel terminals and coal-fired power plants along the Gulf Coast receive their shipments by barge through this waterway. The project supports major barge traffic providing the east/west transit route along the northern Gulf Coast for coal, petroleum products, chemicals, wood products and heavy industrial components. The project has a five-year average of over 25.4 million tons of commodities transported.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$756,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mobile Harbor, AL

AUTHORIZATION: Rivers and Harbors Acts of 1937, 1945, and 1954. The Theodore Ship Channel was authorized by Section 201 of the Flood Control Act of 1965 and modified by Section 112 of the Water Resources Development Act of 1976. Deepening and Widening was authorized by the Supplemental Appropriations Act of 1985, as modified by the Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The high use, deep draft project is located in Mobile, Alabama. The project provides a 47 foot by 600 foot channel from the Gulf of Mexico into Mobile Bay, a 45 foot by 400 foot channel in the Bay to the McDuffie Coal terminal, a 40 foot by 500 foot channel in the Mobile River to the Cochrane-Africatown Bridge, a 25 foot by 250-500 foot channel leading to and into Chickasaw Creek, and various smaller channels and turning basins for use by commercial, international and domestic marine traffic, including the Theodore Industrial Channel.

FISCAL YEAR 2016 ALLOCATION: \$29,473,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation. Mobile Harbor is designated an Energy Transport Port and allocated \$2,475,000 to allow for maintenance of the sponsors berthing areas. Funds in the amount of \$4,000,000 were allocated for emergency dredging due to storms occurring January 2016.

FISCAL YEAR 2017 ALLOCATION: \$26,161,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation. Mobile Harbor is designated an Energy Transport Port and allocated \$2,772,000 to allow for maintenance of the sponsors berthing areas.

BUDGETED AMOUNT FOR FY 2018: M: \$23,900,000 O: \$550,000 T: \$24,450,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$24,450,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Mobile supports a major coal import/export facility supplying coal for all the power plants across the northern Gulf Coast as well as petroleum products, wood products, containers, etc. The port also supports major shipbuilding and ship repair facilities, including the construction of U.S. Navy ships. The project has a five year average of over 54 million tons of commodities transported.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$400,000 of which \$0 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: South Atlantic

District: Mobile

Mobile Harbor, AL

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway - Wildlife Mitigation, AL and MS

AUTHORIZATION: Water Resources Development Acts of 1986 and 1992

LOCATION AND DESCRIPTION: The high use, inland navigation project extends from Demopolis, Alabama to the Tennessee River at the common boundary of Alabama, Mississippi and Tennessee. The project consists of three major components: (1) acquisition and management of 88,000 acres of separable mitigation lands at specific locations in Alabama and Mississippi; (2) management of an additional 93,000 acres of existing Corps lands at specific locations in Alabama and Mississippi; and (3) implementation of an initial development program on 181,000 acres of lands comprising the mitigation program. Most of the mitigation lands are organized into contiguous management units distributed between 10 wildlife management areas (seven in Mississippi and three in Alabama). The State wildlife management agencies are responsible for the management of all but 50,000 acres that are managed by the Corps.

FISCAL YEAR 2016 ALLOCATION: \$1,683,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operations in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$1,700,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,751,000 T: \$1,751,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,751,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Funding will support oversight and management by state wildlife agencies in Mississippi and Alabama for a total of 10 Wildlife Management Areas (WMAs) – seven WMAs in the state of Mississippi and three WMAs in the state of Alabama, as mandated by the Water Resources Development Act of 1986. These WMAs promote long-term public access, use, conservation and management of natural resources, particularly wildlife, consistent with the Corps mission mandate for natural resources management.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway (TTWW), AL and MS

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The high use, inland navigation project extends from Demopolis, Alabama to the Tennessee River at the common boundary of Alabama, Mississippi and Tennessee. The project includes a 234-mile navigation channel varying from 9-12 feet by 300 feet, 10 locks and dams, and numerous recreation areas.

FISCAL YEAR 2016 ALLOCATION: \$28,588,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance.

FISCAL YEAR 2017 ALLOCATION: \$29,818,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance. Non-routine operations include development of the geospatial land data migration maps, inspect and make repairs to gates, design of the Project Office Building, bank stabilization on Shell Bluff cultural site, and retaining wall construction. There is a total of \$355,000 for sustainability work on this project for water service maintenance at camp sites to reduce water loss and site maintenance. Additional funds are being used for cultural resource monitoring (\$100,000) and for replacement of wood stair-stepped retaining walls at Piney Grove Campground (\$500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$13,213,000 O: \$16,286,000 T: \$29,499,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$24,003,000 - Perform routine operations and maintenance for navigation. Non-routine activities include geospatial land data migration mapping (\$546,000) and update of the water control manual (\$70,000).

FRM: N/A

RC: \$4,642,000 - Perform routine operation and maintenance for recreation. Non-routine recreation work involves replacing wood stair-stepped retaining walls with concrete at Piney Grove Campground (\$100,000).

H: N/A

EN: \$854,000 - Perform routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project includes seven Class A campgrounds, three visitor centers, one historical landmark, 40 boat ramps, nine large public-use areas, 72,500 acres of project wildlife mitigation land, two office buildings and 10 locks and dams. The project had over 1.75 million visits in FY 2012 and a five-year average of 6.5 million tons of commodities transported.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$262,000. There was an additional \$46,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Walter F. George Lock and Dam, AL and GA

AUTHORIZATION: Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The multiple-purpose project is located at mile 75.2 on the Chattahoochee River, 1.5 miles north of Ft. Gaines, Georgia, in Clay, Quitman, and Stewart Counties, Georgia and Henry, Barbour, and Russell Counties, Alabama. The project includes a hydroelectric powerhouse, 22 recreation areas, a navigation lock and a 46,000-acre reservoir with 640 miles of shoreline.

FISCAL YEAR 2016 ALLOCATION: \$10,628,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of the multi-purpose project. Non-routine maintenance included replacing the station service switchgear.

FISCAL YEAR 2017 ALLOCATION: \$13,930,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of the multi-purpose project. Non-routine maintenance includes construction of site attendant pad at park entrance, generator fire suppression system, head gate repair, replacement of the powerhouse roof, and boundary surveying and rectification activities.

BUDGETED AMOUNT FOR FY 2018: M: \$4,150,000 O: \$5,503,000 T: \$9,653,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$390,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: \$2,492,000 – Funds will be used for routine operations and maintenance in support of recreation.

H: \$3,550,000 – Funds will be used for routine operations and maintenance in support of hydropower.

EN: \$1,595,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship. Non-routine work involves Master Plan Compliance (\$500,000).

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,626,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 54% and NAV - 46%. Joint cost non-routine work involves Geospatial Land Data Migration Mapping (\$446,000). The project has on average 3.5 million visits annually to the recreation facilities and has a hydropower capacity of 130,000 kilowatts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$375,000. There was an additional \$17,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Water/Environmental Certification, AL

AUTHORIZATION: Not applicable. Each project covered under this program has its own authorization.

LOCATION AND DESCRIPTION: The water quality certification is for deep draft and shallow draft projects located on the Gulf Coast of Alabama.

FISCAL YEAR 2016 ALLOCATION: \$25,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for miscellaneous consultation and environmental data calls on small projects throughout Alabama.

FISCAL YEAR 2017 ALLOCATION: \$20,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: FY 2017 funds are being used for miscellaneous consultation and environmental data calls on small projects throughout Alabama.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$80,000 T: \$80,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$80,000 - The Water/Environmental Certification activities encompass coordination with Federal and State natural resources agencies to meet environmental requirements associated with dredging for unbudgeted projects along the Gulf Coast of Alabama.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The primary purpose of these activities is coordination between the Corps and other Federal and state agencies to meet environmental requirements associated with dredging.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

ALASKA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Anchorage Harbor, AK

AUTHORIZATION: 1) Rivers and Harbors Act of 1958, P. L. 85-500, (Anchorage Harbor, AK as included in House Document 34, "Cook Inlet and Tributaries, Alaska," 85th Congress, and 1st Session) and 2) The Consolidated Appropriations Act of 2005, Division C – Energy and Water Development Appropriations, Public Law 108-447

LOCATION AND DESCRIPTION: The Port of Anchorage is located in Anchorage at the northern end of Cook Inlet in south central Alaska. The moderate-use, deep draft harbor accommodates three dry cargo berths and two petroleum handling facilities. It serves as Alaska's regional port and provides services to approximately 80% of the total population of Alaska, including four military bases. Anchorage Harbor has been designated a national strategic port by the Department of Defense and is also used by military vessels. The Corps of Engineers has dredged the Port of Anchorage annually at full federal expense to its authorized depth of 35 feet below mean lower low water since the 1960's. Vessels with drafts up to 40 feet dock during high tide and offload their cargo, thus requiring full project depth year around.

FISCAL YEAR 2016 ALLOCATION: \$10,298,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine annual maintenance dredging with a small hopper dredge to remove an estimated 1.2 million cubic yards of glacial silts and sands in the summer months and about 40,000 cubic yards in critical areas in the early spring.

FISCAL YEAR 2017 ALLOCATION: \$10,668,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for a small contract hopper dredge to perform routine annual maintenance dredging of approximately 1.2 million cubic yards of glacial silts and sands between April and November 2017 and to perform spring dredging of approximately 40,000 cubic yards in March and April 2017 to remove material that has shoaled over the winter in critical areas.

BUDGETED AMOUNT FOR FY 2018: M: \$10,260,000 O: \$0 T: \$10,260,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,260,000 - will be used to perform annual maintenance dredging to remove an estimated 1.2 million cubic yards of glacial silts and sands from this moderate use commercial port between April and November and to perform early spring dredging of approximately 40,000 cubic yards.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Shoaling rates at the Port are highly unpredictable from one year to the next. Recent trends indicate that warmer winters tend to keep adjacent mudflats from freezing and "locking up" transportable silts that flow into the project area; thereby increasing the dredging requirements in the subsequent dredging season. Ice flow in Cook Inlet from late November through March prohibit dredging operations during the winter months.

Division: Pacific Ocean

District: Alaska

Anchorage Harbor, AK

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$75,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chena River Lakes Flood Control Project, North Pole, AK

AUTHORIZATION: Flood Control Act of 1968, House Document 148, 90th Congress, 2nd Session.

LOCATION AND DESCRIPTION: The Chena River Lakes Flood Control Project is located in North Pole, Alaska approximately 17 miles east of Fairbanks, Alaska. The 20,000 acre project consists of a 7.5 mile long rock-filled dam that provides flood protection to Fairbanks and adjacent areas, including Fort Wainwright, from recurring flood damage from the Chena River.

FISCAL YEAR 2016 ALLOCATION: \$3,579,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine project operations and maintenance through existing contracts and the procurement and award of new service and construction contracts for floodway, structure and equipment maintenance, removal of flood debris, vegetation management, project surveys, a master plan update and purchase of a patrol boat. An annual dam inspection was also performed. Routine management of the non-leased recreation lands included a law enforcement agreement, environmental compliance and stewardship activities.

FISCAL YEAR 2017 ALLOCATION: \$9,663,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine project operations and maintenance through existing service contracts for floodway, structure and equipment maintenance, visitor center operation, removal of flood debris and vegetation management. An annual emergency action plan exercise, dam inspection, relief well improvements and the addition of weirs on a seepage collector channel will be completed. Routine management of the non-leased recreation lands will include a law enforcement agreement, environmental compliance and stewardship activities.

BUDGETED AMOUNT FOR FY 2018: M: \$2,618,000 O: \$5,420,000 T: \$8,038,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$7,347,000 - to provide annual project operations, maintenance, compliance with dam safety regulations, periodic inspections for flood risk management, and replace the project crane.

RC: \$386,000 - to perform routine management of the non-leased recreational lands and fund the annual law enforcement cooperation agreement with the local police department.

H: N/A

EN: \$305,000 - to perform routine environmental compliance and stewardship activities relating to the natural resources management program.

WS: N/A

OTHER INFORMATION: Operation of the dam at the minimum level of service prevents downstream flooding on average about once each year with average annual damages prevented of \$9,231,000. In 2014, the project experienced two flood events in late June and early July that prevented an estimated \$111M in damages to properties downstream of the project; bringing the total project damages prevented to \$370M since becoming operational in 1981.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was

Division: Pacific Ocean

District: Alaska

Chena River Lakes, AK

\$313,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chignik Harbor, AK

AUTHORIZATION: Water Resources and Development Act of 1996, Public Law 104-303

LOCATION AND DESCRIPTION: Chignik Harbor is located on the south shore of Anchorage Bay which is connected to Chignik Bay on the south side of the Alaska Peninsula, 450 miles southwest of Anchorage. The low-use, deep draft harbor consists of a 650 foot long by 100 foot wide entrance channel with an authorized depth of -19.5 feet mean lower low water, a north breakwater 304 feet long, and a south breakwater 1,279 feet long. Access to this region is by water or air only.

FISCAL YEAR 2016 ALLOCATION: \$546,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for engineering and design efforts to prepare plans and specifications and environmental documentation for a construction contract to repair sections of both the north and south breakwaters where the armor rock is failing. The planned repairs are consistent with the findings and recommendations from an Operational Condition Assessment conducted in Fiscal Year 2015.

FISCAL YEAR 2017 ALLOCATION: \$9,200,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to continue engineering and design efforts to prepare plans and specifications and environmental documentation for a construction contract to repair sections of both the north and south breakwaters where the armor rock is failing. The planned repairs are consistent with the findings and recommendations from an Operational Condition Assessment conducted in Fiscal Year 2015. Additional funds are provided to award a maintenance construction contract for breakwater repair (\$5,000,000) and award the first maintenance construction contract option (\$4,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$150,000 O: \$0 T: \$150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$150,000 - will be used to complete environmental documentation and continue engineering and design to cap the failing sections of both rubble mound breakwaters with armor stone.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Chignik is a fishing and seafood processing community. This subsistence harbor was constructed in the 2009 through 2010 time period. The rock used for the breakwaters came from a quarry that contained both good and poor quality rock. The poor quality rock was not discovered until after it had been delivered and placed on the breakwater. The freeze-thaw action is causing the poor quality rock to crumble and render itself unsuitable for wave protection on a breakwater.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$599,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to

Division: Pacific Ocean

District: Alaska

Chignik Harbor, AK

be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dillingham Harbor, AK

AUTHORIZATION: Rivers and Harbors Act of 1958, Public Law 85-500, House Document 390, 84th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Dillingham Harbor is located approximately 350 miles south west of Anchorage at the head of Nushagak Bay and at the confluence of the Wood and Nushagak Rivers in Bristol Bay. Access to this region is either by water or air only. This project is a low-use, shallow draft harbor 700 feet long by 300 feet wide with an authorized depth of 2 feet above mean lower low water. A 1,100 feet long entrance channel provides half-tide access to the basin.

FISCAL YEAR 2016 ALLOCATION: \$1,091,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for annual maintenance dredging of the harbor and entrance channel, for engineering and design efforts to perform environmental coordination and to prepare plans and specifications for a new annual maintenance dredging contract.

FISCAL YEAR 2017 ALLOCATION: \$860,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of approximately 95,000 cubic yards from the harbor and entrance channel and for solicitation and award of a new annual maintenance dredging contract.

BUDGETED AMOUNT FOR FY 2018: M: \$850,000 O: \$0 T: \$850,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$850,000 - to perform annual maintenance dredging of the harbor and entrance channel.

FRM: N/A

RC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides half-tide access and all-tide moorage for about 320 commercial fishing vessels. Commercial salmon fishing is the cornerstone of the community's economy with subsistence hunting and fishing continuing as vital local activities. This harbor is also an important harbor-of-refuge in Bristol Bay.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$171,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Douglas Harbor, AK

AUTHORIZATION: Rivers and Harbors Act of 1958 and the Rivers and Harbors Act of 1960 (P.L. 86-645) as amended by the Water Resources and Development Act of 2007.

LOCATION AND DESCRIPTION: Douglas Harbor is on Douglas Island in southeast Alaska across Gastineau Channel from Juneau. The low-use, shallow draft harbor consists of a 400 foot by 380 foot basin and 345 foot by 60 foot entrance channel both with a project depth of -12 feet mean lower low water. Other project features include a 105 feet long jetty from Juneau Isle on the north side of the harbor, a 130 feet long rubble mound breakwater extension and a 105 feet long rubble mound breakwater extension on the northwest and southeast sides of the entrance channel, respectively, and a 230 feet long floating breakwater. Access to the Juneau area is by air or water only.

FISCAL YEAR 2016 ALLOCATION: \$150,000

DESCRIPTIONS OF WORK FOR FY 2016: Monitoring in accordance with the Environmental Protection Agency approved plan.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$300,000 O: \$0 T: \$300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$300,000 will be used for physical and chemical monitoring of contaminated material caps in Douglas Harbor and at the in-water placement site in Gastineau Channel. Monitoring is required in accordance with the Environmental Protection Agency approved plan.

FRM: N/A

RC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Douglas Harbor provides protected moorage for 100 small watercraft. It is also one of three U.S. Army Corps of Engineers projects that provide moorage for the commercial fleet in the Juneau/Douglas area. Mercury contaminated material was dredged from the harbor and capped. Monitoring of the cap is required.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$271,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Homer Harbor, AK

AUTHORIZATION: Rivers and Harbors Act of 1958 (P.L. 85-500), House Document 34, 85th Congress, 1st Session, as amended by the Rivers and Harbors Act of 1964 (P.L. 88-451).

LOCATION AND DESCRIPTION: Homer Harbor is located in south central Alaska, approximately 230 road miles from Anchorage near the southern tip of the Kenai Peninsula. The project is a low-use, deep draft harbor. The outer entrance channel is 700 feet long and dredged to a depth of -20 feet mean lower low water; this channel is protected by a 1,018 feet long breakwater. The inner entrance channel is 850 feet long, is dredged to a depth of -20 feet mean lower low water, and is protected by a 238 feet long breakwater. The maneuvering channel is 2,790 feet long and varies in depth from -20 to -10 feet mean lower low water.

FISCAL YEAR 2016 ALLOCATION: \$607,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform annual maintenance dredging of the harbor entrance channel and for engineering and design efforts to prepare environmental documentation and plans and specifications for a new annual maintenance dredging contract.

FISCAL YEAR 2017 ALLOCATION: \$462,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform annual maintenance dredging of approximately 8,500 cubic yards from the harbor entrance channel and for solicitation and award of a new annual maintenance dredging contract.

BUDGETED AMOUNT FOR FY 2018: M: \$600,000 O: \$0 T: \$600,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$600,000 – Funds will be used to perform annual maintenance dredging of the harbor entrance channel.

FRM: N/A

REC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides sheltered moorage for approximately 1,525 vessels, and is home port for U.S. Coast Guard vessels HICKORY and ROANOKE ISLAND and the U.S. Fish and Wildlife's Research Vessel TIGLAX. The project extends the fishing season four months each year and is an integral part of Homer's economy. Annual commercial tonnage for the harbor is 0.1 million tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$195,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Pacific Ocean

District: Alaska

Homer Harbor, AK

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ninilchik Harbor, AK

AUTHORIZATION: Rivers and Harbors Act of 1958 (P.L. 85-500), House Document 34, 85th Congress, 1st Session.

LOCATION AND DESCRIPTION: The Ninilchik Harbor is located in Ninilchik, Alaska, approximately 180 road miles southwest of Anchorage and 37 road miles north of Homer on the Kenai Peninsula. The project is a low-use, shallow draft harbor that is 400 feet long by 120 feet wide with a 900 feet long entrance channel that provides half-tide access.

FISCAL YEAR 2016 ALLOCATION: \$492,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform annual maintenance dredging of the basin and entrance channel and for engineering and design efforts to perform environmental coordination, expand the placement site, and develop the plans and specifications for a new annual maintenance dredging contract.

FISCAL YEAR 2017 ALLOCATION: \$345,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform annual maintenance dredging of approximately 11,000 cubic yards from the basin and entrance channel and for contracting effort to solicit and award a new annual maintenance dredging contract.

BUDGETED AMOUNT FOR FY 2018: M: \$550,000 O: \$0 T: \$550,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$550,000 - will be used to perform annual maintenance dredging of the harbor entrance channel.

FRM: N/A

RC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The small boat basin provides protected moorage with half-tide access for 32 vessels and over 100 transient vessels. The basin and channel also provide access for Cook Inlet commercial fishing boats to unload their catch and take on supplies. The basin is an important harbor-of-refuge and subsistence harbor for lower Cook Inlet.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$119,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nome Harbor, AK

AUTHORIZATION: 1) Rivers and Harbors Act of 1917, House Document 1932, 64th Congress, 2nd Session; 2) Rivers and Harbors Act of 1935, House Document 404, 71st Congress, 2nd Session; 3) Rivers and Harbors Committee Document 38, 73rd Congress, 2nd Session; and 4) Water Resource Development Act of 1999 (P.L.106-53).

LOCATION AND DESCRIPTION: Nome Harbor is located on the southern coast of the Seward Peninsula in northwest Alaska. Nome is approximately 540 miles northwest of Anchorage, Alaska. The low-use, deep draft harbor consists of a 3,760 foot long entrance channel protected by a 3,025 foot long rubble mound breakwater and a 600 foot long by 250 foot wide basin. Additional project features include a 270 foot long rubble mound spur breakwater protecting two cargo berths on the City's causeway, a causeway bridge, and sediment collection basin. Access to Nome is by air or water only.

FISCAL YEAR 2016 ALLOCATION: \$2,370,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for annual maintenance dredging of approximately 35,000 cubic yards of material from the inner harbor and east sediment collection basin and for dredging approximately 25,000 cubic yards of material from the outer entrance channel.

FISCAL YEAR 2017 ALLOCATION: \$2,420,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of approximately 60,000 cubic yards from the inner harbor and east sediment collection basin and for engineering and design efforts to perform environmental coordination and develop the plans and specifications for a new annual maintenance dredging contract.

BUDGETED AMOUNT FOR FY 2018: M: \$2,365,000 O: \$0 T: \$2,365,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,365,000 - will be used to perform annual maintenance dredging for Nome Harbor and for solicitation and award of a new annual maintenance contract.

FRM: N/A

RC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Nome is the transportation and commerce center for Northwest Alaska. Nome Harbor is a harbor of refuge, subsistence harbor, and a major commercial distribution and transfer center for cargo and fuel to Northwest Alaska and Seward Peninsula. The harbor is also visited by U.S. Coast Guard vessels patrolling the northwest coast of Alaska.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$197,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Pacific Ocean

District: Alaska

Nome Harbor, AK

ARIZONA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alamo Lake, AZ

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located 25 miles north of the city of Wenden and 120 miles northwest of the city of Phoenix. It consists of an earthen-fill dam, outlet works, spillway, service roads, reservoir, and recreation area.

FISCAL YEAR 2016 ALLOCATION: \$1,457,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance (O&M) of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities included installation of solar panels.

FISCAL YEAR 2017 ALLOCATION: \$1,260,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine O&M of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities include in-depth evaluation of the need for changes to the water control manual and an evaluation of the affected environment.

BUDGETED AMOUNT FOR FY 2018: M: \$1,125,000 O: \$902,000 T: \$2,027,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,735,000 - Funding will be used for routine operation and maintenance for flood risk management. Amount includes \$50,000 for non-routine activity (energy efficiency upgrades).

RC: \$64,000 - Funding will be used for routine operation and maintenance for oversight of leased recreation areas.

H: N/A

EN: \$228,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,000. There was an additional \$183,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Painted Rock Dam, AZ

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The project is 20 miles northwest of the city of Gila Bend and 120 miles southwest of the city of Phoenix. The project consists of an earthen-fill dam, a saddle dike, outlet works, a spillway, a pilot channel reservoir, and a recreation area. The recreation area has been closed by the State of Arizona due to contaminated water.

FISCAL YEAR 2016 ALLOCATION: \$799,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance (O&M) of the project for flood risk management and environmental stewardship. Non-routine activities included solar panel installation.

FISCAL YEAR 2017 ALLOCATION: \$890,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management and environmental stewardship, and for Master Plan compliance activities (\$60,000).

BUDGETED AMOUNT FOR FY 2018: M: \$623,000 O: \$516,000 T: \$1,139,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,108,000 - Funding will be used for routine operation and maintenance for flood risk management. Amount includes \$50,000 for non-routine activity (energy efficiency upgrades).

RC : N/A

H: N/A

EN: \$31,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The quantity of water released into the downstream, unimproved channel is based on the amount of water in storage and the amount of damage occurring downstream. Downstream interests have made substantial improvements to bridges and crossings, which will allow larger releases than in the past.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitlow Ranch Dam, AZ

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Whitlow Ranch Dam is located 50 miles southeast of the city of Phoenix in the County of Pima. It consists of an earthen-fill dam, outlet works, service roads, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$363,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$317,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$337,000 O: \$447,000 T: \$784,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$690,000 - Funding will be used for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: \$94,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Since construction of the Dam in 1960, Phoenix and the surrounding area have experienced a major population increase, with development pushing further into the desert nearing the un-gated flood control structure.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

ARKANSAS

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beaver Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) and the Water Supply Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: The project is located east of Rogers, Arkansas in Benton, Carroll, Madison, and Washington Counties. Beaver Lake is a multiple-purpose project located in the White River Basin. The project contains two 56 MW hydropower generator units.

FISCAL YEAR 2016 ALLOCATION: \$8,181,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to replace the traveling bulkhead pickup rail, update the Beaver Lake Master Plan, replace geothermal HVAC (Sustainability), and update the Beaver Lake Shoreline Management Plan.

FISCAL YEAR 2017 ALLOCATION: \$9,958,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to replace sluice gate wiring and the sump pump, construct a new restroom/shower, update the Beaver Lake Shoreline Management Plan, replace all generator breakers, and replace waterlines at Dam Site Park. Additional funds are being used to repair 2015 flood damaged recreation facilities (\$939,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,278,000 O: \$6,629,000 T: \$8,907,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,089,000 – Funds will provide for routine operation and maintenance of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$2,850,000 – Funds will provide for routine operation and maintenance of recreation.

H: \$2,855,000 – Funds will provide routine operation and maintenance for hydropower generation, power plant equipment and joint operations. In addition, non-routine work packages will be funded to update arc flash analysis (\$55,000), replace Power House lighting fixtures (\$55,000), and replace the power plant sewage system (\$600,000).

EN: \$1,561,000 – Funds will provide for routine operation and maintenance of environmental stewardship. In addition, a non-routine work package will be funded to update the Beaver Lake Shoreline Management Plan (\$220,000).

WS: 25,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Beaver Lake is estimated to have prevented \$115 million in flood damages since its construction. Over 2,457,000 recreation visits, with an estimated local economic impact of \$85 million took place in FY 2012. Hydropower generation in FY 2016 was 213,000 megawatt-hours, enough for 21,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$527,000 shared between business lines as follows: HYD 67.8%, FRM 23.4%, and ENS 8.8%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$499,000. There was an additional \$8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blakely Mountain Dam, Lake Ouachita, AR

AUTHORIZATION: Flood Control Act of 1944, Section 10

LOCATION AND DESCRIPTION: Blakely Mountain Dam, Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, AR, west of Hot Springs, AR. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 2,768,000 acre-feet. The power plant has a generating capacity of 75,000 kilowatts. Twenty campgrounds and recreation areas are located on the project.

FISCAL YEAR 2016 ALLOCATION: \$7,438,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 budgeted funds were used for operation and maintenance.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$8,174,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam, including inspections and water control data collection; hydropower facilities, including rehab of the crane controls; recreation facilities; monitoring and surveying wildlife and updating Lake Ouachita Master Plan. Also, coordination of new water supply agreements (\$9,000) and provide support/administration for existing water supply agreements (\$8,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,086,000 O: \$4,717,000 T: \$7,803,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$569,000 – Funds will be used for operation and maintenance of the dam including inspections and water control data collection.

RC: \$2,863,000 – Funds will be used for operation and maintenance of recreation facilities.

H: \$3,797,000 – Funds will be used for operation and maintenance of the hydropower facilities and rehab of the crane controls.

EN: \$159,000 – Funds will be used for monitoring and surveying wildlife and other organisms listed as threatened or endangered, monitoring culturally significant sites for disturbances, taking protective measures to prevent disturbances, investigating and reporting disturbances of sites, forest management activities, and monitoring exotic species infestations in Lake Ouachita.

WS: \$21,000 – Funds will be used for coordination of new water supply agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$394,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD – 51% and FRM – 49%. These joint activities include funding dam safety, periodic inspections, water control data collection, water quality analysis, and hydraulic steel structures inspections. Blakely Mountain Dam has prevented over \$23 million in flood damages since it was placed in operation in 1952. In FY 2014, Blakely Mountain

Division: Mississippi Valley

District: Vicksburg

Blakely Mountain Dam,
Lake Ouachita, AR

Power Plant generated 179,149 megawatt-hours of hydroelectric power and since being placed in operation, has produced gross revenues of over \$146.0 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$57,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blue Mountain Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: The project is near Waveland, Arkansas in Logan and Yell Counties. Blue Mountain Lake is located in the Arkansas River Basin on the Petit Jean River. The primary purpose of the project is flood risk management. The project also offers excellent recreational opportunities.

FISCAL YEAR 2016 ALLOCATION: \$2,471,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and to repair/replace service gate hoist controls.

FISCAL YEAR 2017 ALLOCATION: \$1,908,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to replace gate well lighting at project office and intake structure (Sustainability), and to repair the concrete spillway.

BUDGETED AMOUNT FOR FY 2018: M: \$408,000 O: \$1,475,000 T: \$1,883,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,155,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$475,000 – Funds will provide for routine O&M of recreation.

H: N/A

EN: \$245,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$8,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Blue Mountain Lake is estimated to have prevented \$55 million in flood damages since its construction. Over 405,000 recreation visits with an estimated economic impact of \$14 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bull Shoals Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L 75-685)

LOCATION AND DESCRIPTION: Bull Shoals Lake is located in Marion, Baxter, and Boone Counties of Arkansas and Ozark and Taney Counties of Missouri. Bull Shoals is a multi-purpose project with authorized purposes for hydropower and flood risk management. The project contains eight hydropower generating units with a total installed capacity of 340 megawatts.

FISCAL YEAR 2016 ALLOCATION: \$9,550,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to update the Bull Shoals Lake Shoreline Management Plan, and clean, repair, and paint tainter gates, trunnion arms and seals.

FISCAL YEAR 2017 ALLOCATION: \$8,305,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to repair a leak in monolith joint #37, replace water system in Buck Creek Park, rehabilitate draft tube gates and operators, update Bulls Shoals Lake Shoreline Management Plan, review power operations at the power plant, and provide supervision and administration of tainter gate repairs.

BUDGETED AMOUNT FOR FY 2018: M: \$5,647,000 O: \$5,780,000 T: \$11,427,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,149,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment. In addition, non-routine work package will be funded rehabilitate emergency and service gates (\$1,000,000).

RC: \$1,795,000 – Funds will provide for routine O&M of recreation.

H: \$6,339,000 – Funds will provide routine O&M for hydropower generation, power plant equipment, and joint operations of power plant and dam components. In addition, non-routine work packages will be funded to update arc flash analysis (\$65,000), replace security fencing and lighting (\$1,750,000), and rehabilitate the main unit sump pumps (\$900,000).

EN: \$398,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$13,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Bull Shoals Lake is estimated to have prevented \$331 million in cumulative flood damages since its construction. Over 2,556,000 recreation visits, with an estimated local economic impact of \$92,000,000, occurred in FY 2012. Hydropower generation in FY 2016 was 1,112,000 megawatt-hours, enough for 108,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$733,000 shared between business lines as follows: HYD – 49.1% and FRM – 50.9%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$290,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Little Rock

Bull Shoals Lake, AR

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: DeGray Lake, AR

AUTHORIZATION: Rivers and Harbors Act of 1950, Section 101 and Water Supply Act of 1958, as amended by Federal Water Pollution Control Act of 1961.

LOCATION AND DESCRIPTION: DeGray Lake is located on the Caddo River in Clark and Hot Spring counties, AR, northwest of Arkadelphia, AR. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management.

FISCAL YEAR 2016 ALLOCATION: \$6,301,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance and to repair critical health and safety infrastructure damaged by flood waters. Funds were also used to coordinate new water supply agreements and for additional repairs due to the 2015 flood.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$6,141,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance. Additional funds are provided to maintain existing Water Supply Agreements (\$15,000) and coordination of new water supply agreements (\$5,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,688,000 O: \$5,372,000 T: \$7,060,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$26,000 – Funds will be used for channel inspections and navigational aids/buoys and repair access bridge (\$7,000).

FRM: \$379,000 – Funds will be used for operation and maintenance of the dam including inspections and data collection.

RC: \$2,935,000 – Funds will be used for operation and maintenance of recreation facilities.

H: \$2,185,000 – Funds will be used for critical operation and maintenance of the hydropower facilities, repairs and refurbish intake cylinder gate and replace cooling water coils.

EN: \$1,032,000 – Funds will be used for management of cultural and natural resources from further degradation. This includes boundary surveillance for encroachments, outgrant and land use request evaluations, surveillance of lands and waters to monitor and management of invasive species, selective timber thinning, prescribed burning activities, and the creation of fish and wildlife habitat.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$503,000 for routine operation and maintenance of project features used by multiple business lines: REC-33%, FRM-27%, EN-24%, HYD-13%, and NAV-3%. The power plant has a generating capacity of 68,000 kilowatts. In FY 2014, DeGray power plant generated 77,158 megawatt-hours of hydroelectric power and since being placed in operation, has produced gross revenues of over \$97 million. There is a re-regulating pool below the main dam for water supply storage and pumped-storage power generation. Storage capacity of the lake is 495,100 acre-feet. DeGray Dam has prevented \$9 million in flood damages since it was placed in operation. Eighteen campgrounds and recreation areas are located on the project. Annual public visitation to the project is approximately 3,000,000.

Division: Mississippi Valley

District: Vicksburg

DeGray Lake, AR

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$35,000. There was an additional \$54,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$22,000.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: DeQueen Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: DeQueen Lake is located on the Rolling Fork River, in Sevier County, four miles northwest of DeQueen, Arkansas. The project's authorized purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2016 ALLOCATION: \$1,986,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and to install 240 volt service at Pine Ridge and Bellah Mine Parks.

FISCAL YEAR 2017 ALLOCATION: \$1,780,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities and to replace fee booth in Oak Grove Park (Sustainability).

BUDGETED AMOUNT FOR FY2018: M: \$420,000 O: \$1,288,000 T: \$1,708,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2018:

N: N/A

FRM: \$1,065,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$499,000 – Funds will provide for routine O&M for recreation.

H: N/A

EN: \$134,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$10,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: DeQueen Lake is estimated to have prevented \$23 million in cumulative flood damages since its construction. Over 112,000 recreation visits, with an estimated local economic impact of \$4.7 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$25,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dierks Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Dierks Lake is located in Dierks, Arkansas, on the Saline River in Howard and Sevier Counties. The project's authorized purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2016 ALLOCATION: \$1,685,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to replace vehicle/equipment shed, conduct a sedimentation survey, and install new wiring and lighting in the control tower.

FISCAL YEAR 2017 ALLOCATION: \$1,868,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to perform flood damaged timber cleanup and reforestation (\$100,000), and to replace hot water heaters and plumbing in restroom facilities in Jefferson Ridge, Blue Ridge and Horseshoe Bend Parks (Sustainability).

BUDGETED AMOUNT FOR FY 2018: M: \$535,000 O: \$1,243,000 T: \$1,778,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,190,000 – Funds will provide for routine O&M of dam, reservoir, service facilities and permanent operating equipment. Non-routine activities include installing a manhole for access to the toe drain (\$200,000).

RC: \$501,000 – Funds will provide for routine O&M of recreation.

H: N/A

EN: \$77,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$10,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Dierks Lake is estimated to have prevented \$14 million in cumulative flood damages since its construction. Over 194,000 recreation visits, with an estimated local economic impact of \$7 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gillham Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Gillham Lake is in Howard County six miles northeast of Gillham, Arkansas and located on the Cossatot River. The project's primary purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2016 ALLOCATION: \$1,504,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to install lighting and wiring in the control tower, and conduct a sedimentation study.

FISCAL YEAR 2017 ALLOCATION: \$1,556,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities and to remove trees from the upstream embankment.

BUDGETED AMOUNT FOR FY 2018: M: \$275,000 O: \$1,252,000 T: \$1,527,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$924,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$453,000 – Funds will provide for routine O&M of recreation.

H: N/A

EN: \$142,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$8,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Gillham Lake is estimated to have prevented \$34 million in cumulative flood damages. Over 82,000 recreation visits, with a local estimated economic impact of more than \$3 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Greers Ferry Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) as amended by the Flood Control Acts of 1941 (P.L. 77-228) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Greers Ferry Lake is located near Heber Springs, Arkansas, on the Little Red River in Cleburne and Van Buren Counties. Greers Ferry is one of the five multi-purpose projects in the White River Basin and was authorized for hydropower and flood risk management. The project contains two 48-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$9,579,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to rehabilitate and paint tainter gates, prepare water supply reallocation report, replace water heaters in project recreation areas, and seal a monolith joint crack at the dam.

FISCAL YEAR 2017 ALLOCATION: \$9,403,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled O&M activities, to clean, refurbish and paint three of six tainter gates, trunnion arms, side seals, and machinery, install a septic system with field lines for the dump station in John F. Kennedy Park (Sustainability), replace fluorescent bulbs with light-emitting diode (LED) in six parks (Sustainability), prepare a water supply reallocation report, update the Greers Ferry Lake Project Master Plan, and for the location and rectification of missing monuments.

BUDGETED AMOUNT FOR FY 2018: M: 2,323,000 O: \$5,693,000 T: \$8,016,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$948,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$3,564,000 – Funds will provide for routine O&M of recreation.

H: \$2,050,000 – Funds will provide routine O&M for hydropower generation, power plant equipment, and joint operations of power plant and dam components. In addition, non-routine work packages will be funded to update arc flash analysis (\$55,000) and conduct a power review for operation of the power plant (\$75,000).

EN: \$850,000 – Funds will provide for routine O&M of environmental stewardship activities. In addition, a non-routine work package will be funded to complete the update of the Greers Ferry Lake Project Master Plan (\$375,000).

WS: \$27,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Greers Ferry Lake is estimated to have prevented \$53 million in cumulative flood damages since its construction. Over 7,391,000 recreation visits, with an estimated local economic impact of \$244 million took place in FY 2012. Hydropower generation in FY 2016 was 215,000 megawatt-hours, enough for 21,000 homes. As a multiple purpose project with power, the project's budget includes joint activities, with a total allocation of \$577,000 shared between business lines as follows: HYD 59.02% and FRM 40.98%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Helena Harbor, AR

AUTHORIZATION: Rivers and Harbors Act of 1960, Section 107

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 663.0) at Helena in Phillips County, Arkansas. This is a slack water harbor used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 450 feet wide by 3,200 feet long. The local interest is the City of Helena-West Helena, Arkansas.

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin.

FISCAL YEAR 2017 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor and turning basin.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$15,000 T: \$15,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$15,000 – Funds will be used to collect hydrographic survey data in the harbor and turning basin.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 1,832 thousand tons which is a combination of the tonnage for this harbor and Helena Harbor Phillips County, AR under Mississippi River and Tributaries.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, AR

AUTHORIZATION: River and Harbor Act of 1946 (P.L 79-525)

LOCATION AND DESCRIPTION: The 445-mile long McClellan-Kerr Arkansas River Navigation System (MKARNS) is a moderate-use waterway consisting of 18 locks and dams (including Ozark-Jeta Taylor and Dardanelle), providing a nine-foot deep inland navigation channel from the Mississippi River to Catoosa, Oklahoma. The system includes the Arkansas, White, and Verdigris Rivers. The authorized purposes include navigation, environmental stewardship, and recreation.

FISCAL YEAR 2016 ALLOCATION: \$49,045,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, dredging (MKARNS, Ozark-Jeta Taylor, and Dardanelle), to prepare a major rehabilitation report for tainter gate recapitalization (MKARNS, Ozark-Jeta Taylor, and Dardanelle), study and design the removal of lock debris at Montgomery Point Lock and Dam (MKARNS), replace lighting and simple controls at locks and dams (MKARNS), rehabilitate tainter gates at Mills Dam (MKARNS), replace lock hydraulic pumping unit motors (MKARNS), replace lock control wiring (MKARNS), procure critical spare parts (MKARNS), replace 5kV electrical service feeder at lock (Dardanelle), and to replace all generator breakers (Ozark-Jeta Taylor).

FISCAL YEAR 2017 ALLOCATION: \$47,247,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled O&M activities; dredging; to rehabilitate and paint tainter gates at Mills Dam; seal leaking monolith joints at Dardanelle Dam; prepare a major rehabilitation report for tainter gate recapitalization; conduct a power review; security repairs; dredging for Dardanelle, MKARNS, and Ozark; seal leaking monolith joints at Dardanelle; remove debris and repair and replace damaged items from the FY16 flood; repair the service bay bridge supports at Dardanelle; perform road maintenance at Ozark; and repair stoplog centerpost receivers at Murray L&D.

BUDGETED AMOUNT FOR FY 2018: M: \$20,583,000 O: \$26,884,000 T: \$47,467,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$30,539,000 – Funds will be used for routine O&M of navigation activities. In addition, non-routine work packages will be funded to replace external lighting, windows, and water heaters at Pine Bluff Marine Terminal (\$190,000), dredging (\$3,200,000), repairing and painting Tainter gates at Mills Dam (\$900,000), repairing stoplog centerpost receivers at Murray Lock and Dam (\$1,300,000), rehabilitating the shore power at locks 1 – 6 (\$690,000), and maintenance the Toad Suck bridge (\$600,000).

FRM: \$119,000 – Funds will be used for routine O&M of dam, reservoir, service facilities and permanent operating equipment.

RC: \$7,408,000 – Funds will be used for routine O&M of recreation.

H: \$6,697,000 – Funds will be used for routine O&M for hydropower generation, power plant equipment, and joint operations of power plant and dam components. In addition, non-routine work packages will be funded to update arc flash analysis (\$120,000).

EN: \$997,000 – Funds will be used for routine O&M of environmental stewardship activities.

WS: \$10,000 – Funds will be used for routine O&M of water supply activities.

Division: Southwestern

District: Little Rock

McClellan-Kerr Arkansas River
Navigation System, AR

OTHER INFORMATION: The budgeted amount for the project includes \$1,697,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD 53.33% and NAV 46.67% at Dardanelle and HYD 17.84%, NAV 16.35%, REC 63.34%, and FW 2.47% at Ozark. The McClellan-Kerr Arkansas River Navigation System is estimated to have prevented \$2.4 billion in cumulative flood damages since its construction. Over 4,861,000 recreation visits, with an estimated local economic impact of \$185 million occurred in FY 2012. Hydropower generation in FY 2016 was 733,000 megawatt-hours, enough for 72,000 homes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,249,000. There was an additional \$166,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Millwood Lake, AR

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526) as modified by the Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Millwood Lake is seven miles east of Ashdown, Arkansas, and located on the Little River. The lake was constructed for the primary purpose of flood risk management, and authorized for water supply, recreation, and environmental stewardship.

FISCAL YEAR 2016 ALLOCATION: \$2,917,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to repair slope slides on the dam embankment and convert all lighting fixtures on project lands.

FISCAL YEAR 2017 ALLOCATION: \$2,831,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to replace recreational lighting with light-emitting diode (LED) lighting (Sustainability), to perform emergency repair of OKAY Levee (\$200,000), and to replace ten hot water heaters at Beard's Bluff, Saratoga, Cottonshed, Paraloma, and White Cliffs Parks (Sustainability).

BUDGETED AMOUNT FOR FY 2018: M: \$5,400,000 O: \$1,962,000 T: \$7,362,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$6,368,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment. Non-routine activities include Phase 2, repairing Slope Slides on Dam Embankment (\$1,600,000), continuing emergency repairs of OKAY Levee (\$2,407,000), and repairing the stilling basin floor (phase 1) (\$750,000).

RC: \$788,000 – Funds will provide for routine O&M for recreation.

H: N/A

EN: \$181,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$25,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Millwood Lake is estimated to have prevented \$35 million in cumulative flood damages since its construction. Over 360,000 recreation visits with an estimated local economic impact of \$16 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$349,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Narrows Dam, Lake Greeson, AR

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Narrows Dam and Lake Greeson is located on the Little Missouri River in Pike County, AR, north of Murfreesboro, AR. The project consists of a concrete dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 407,000 acre-feet. The power plant has a generating capacity of 25,500 kilowatts. There are 16 campgrounds and recreation areas on the project.

FISCAL YEAR 2016 ALLOCATION: \$10,785,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance. Funds were also used to repair critical health and safety infrastructure damaged by the 2015 flood waters

FISCAL YEAR 2017 ALLOCATION: \$4,912,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for normal operation and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$2,196,000 O: \$3,712,000 T: \$5,908,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$1,321,000 – Funds will be used for operation and maintenance of the dam including inspections and data collection.

RC: \$1,940,000 – Funds will be used for operation and maintenance of recreation facilities. There is an a total of \$109,000 for sustainability work on this project to include LED security lighting upgrades (\$54,000) and replacement of 1,500 feet of sewer piping (\$55,000). Other non-routine work includes replacing flat roofs with pitched roofs and gable ends for shower buildings at Cowhide Cove and Narrows Dam area (\$32,000).

H: \$2,092,000 – Funds will be used for operation and maintenance of the hydropower facilities.

EN: \$320,000 – Funds will be used for management of cultural and natural resources.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$235,000 for routine operation and maintenance of project features jointly used by multiple business lines as follows: HYD - 22% and FRM - 78%. Narrows Dam has prevented over \$9 million in flood damages since it was placed in operation in 1950.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,324,000. There was an additional \$7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: Vicksburg

Narrows Dam/Lake Greeson, AR

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nimrod Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Nimrod Lake is located on the Fourche LaFave River, nine miles southeast of Plainview, Arkansas, in Yell and Perry Counties. There are 680-square miles of drainage area above the dam. The authorized purpose of the project is flood risk management. The project also offers excellent recreational opportunities.

FISCAL YEAR 2016 ALLOCATION: \$2,495,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to clean foundation drains, and repair and paint tractor gates, guides, and trash racks at the dam.

FISCAL YEAR 2017 ALLOCATION: \$4,139,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to replace lighting at all project office buildings and Nimrod Dam (Sustainability), repair flood damages to the recreation facilities (\$1,976,000), and replace main power switchgear.

BUDGETED AMOUNT FOR FY 2018: M: \$420,000 O: \$1,648,000 T: \$2,068,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,264,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment.

RC: \$535,000 – Funds will provide for routine O&M of recreation.

H: N/A

EN: \$260,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$9,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Nimrod Lake is estimated to have prevented \$45 million in cumulative flood damages since its construction. Over 226,000 recreation visits, with an estimated local economic impact of \$8 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Norfolk Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Norfolk Lake is located in Baxter County, Arkansas, and Ozark County, Missouri. Norfolk Lake is one of the five multiple-purpose projects on the White River Basin constructed for flood risk management and hydropower. The project contains two 40.25-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$5,120,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to rehabilitate the plant motor control center, and provide supervision and administration for tainter gate repairs.

FISCAL YEAR 2017 ALLOCATION: \$5,098,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities, to replace the water system in Gamaliel Park (Sustainability), and evaluate and improve timber stand.

BUDGETED AMOUNT FOR FY 2018: M: \$5,789,000 O: \$3,760,000 T: \$9,549,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,673,000 – Funds will provide for routine O&M of dam, reservoir, service facilities and permanent operating equipment. In addition, a non-routine work package will be funded to repair emergency and service sluice gates (\$1,516,000), repair the base of Ogee (\$100,000), prepare design to repair spalls and falling debris hazards along dam face (50,000), and replace roadway median hatch covers to protect tainter gate machinery (\$153,000).

RC: \$1,220,000 – Funds will provide for routine O&M of recreation.

H: \$4,571,000 – Funds will provide routine O&M for hydropower generation, power plant equipment, and joint operations of power plant and dam components. In addition, a non-routine work package will be funded to update arc flash analysis (\$55,000), review power operations at the power plant (\$75,000), and rehabilitate station sump system (\$2,500,000).

EN: \$317,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$9,000 – Funds will provide for routine O&M of water supply activities.

OTHER INFORMATION: Norfolk Lake is estimated to have prevented \$99 million in cumulative flood damages since its construction. Over 1,174,000 recreation visits with an estimated local economic impact of \$49 million occurred in FY 2012. Hydropower generation in FY 2016 was 295,000 megawatt-hours, enough for 29,000 homes. As a multiple purpose project with power, the project's budget includes joint activities, with a total allocation of \$759,000 shared between business lines as follows: HYD 35.8%, FRM 64.2%

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$111,000. There was an additional \$7,000 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Osceola Harbor, AR

AUTHORIZATION: Rivers and Harbors Act of 1960, Section 107, as amended; Water Resources Development Act of 2007, Section 3010

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River at mile 785.0 near Osceola, in Mississippi County, Arkansas. This slack water harbor is used primarily for the export of agricultural goods. The approved channel dimensions are 9 feet deep by 250 feet wide by 6,500 feet long with a 250-foot radius turning basin at the upstream end. The local interest is the city of Osceola, AR.

FISCAL YEAR 2016 ALLOCATION: \$815,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin. Funds were also used for limited dredging in the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$515,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation, maintenance, and limited harbor dredging to authorized channel dimensions.

BUDGETED AMOUNT FOR FY 2018: M: \$500,000 O: \$15,000 T: \$515,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$515,000 – Funds will be used for the collection of navigation channel surveys and to perform limited dredging of the harbor to authorized channel dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 408,000 tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ouachita and Black Rivers, AR and LA

AUTHORIZATION: Rivers and Harbors Act of 1950, as modified by Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, AR and provides for a 9-foot by 100-foot navigation channel. The project also includes a diversion channel through Catahoula Lake near Jonesville, LA for ecological purposes. This is a low use waterway.

FISCAL YEAR 2016 ALLOCATION: \$7,995,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance of locks and dams, dredging, natural resource management, real estate management and to update master plan.

FISCAL YEAR 2017 ALLOCATION: \$10,445,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform minimal dredging, operate and maintain the locks and dams, natural resource management and real estate management. Additional funds are provided for contract dredging activities (\$2,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$6,716,000 O: \$3,832,000 T: \$10,548,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,819,000 – Funds will be used for operation and maintenance of locks and dams, dredging, collection of data for water control and quality and inspections.

FRM: \$13,000 – Funds will be used for real estate management of the project lands leased to others in the Camden, AR area.

RC: \$1,534,000 – Funds will be used for operation and maintenance of recreation facilities.

H: N/A

EN: \$182,000 – Funds will be used for natural resource management activities on the waterway including conservation and protection of soil, water, wetland, vegetation, waterfowl, fish, and wildlife.

WS: N/A

OTHER INFORMATION: In 2012, more than 946,000 tons of cargo was shipped on the Ouachita and Black Rivers.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: White River, AR

AUTHORIZATION: The Rivers and Harbors Acts of 1892 and 1960; Office of the Chief of Engineers modified the project authority in 1968.

LOCATION AND DESCRIPTION: This project is located on the White River from mile 9.8 to mile 255, near Newport in Jackson County. The existing authority is for 4.5 feet by 100 feet from mile 198 to 255 at 3.5 feet on the Newport gage; and 8 feet by 125 feet from mile 9.8 to 198 at 12 feet on the Clarendon gage, including a 5 feet minimum draft at low river stages. The local interest is the Arkansas Waterways Commission.

FISCAL YEAR 2016 ALLOCATION: \$25,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect limited navigation channel surveys.

FISCAL YEAR 2017 ALLOCATION: \$25,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect limited navigation channel surveys.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$25,000 T: \$25,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$25,000 – Funds will be used to collect navigation channel surveys. This information will be provided to local sponsors for use in determining the channel condition and navigation hazards.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 1,000 tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yellow Bend Port, AR

AUTHORIZATION: Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: Yellow Bend Port is an inland port located along the Mississippi River in Desha County, AR. This project's purpose is to meet transportation needs for water-oriented industry in Desha and Chicot Counties in Arkansas. This is a low use shallow draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$89,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for surveys to determine the need for and extent of annual dredging. Funds were also used to fully fund maintenance dredging of the Port.

FISCAL YEAR 2017 ALLOCATION: \$115,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being be used for surveys and for annual maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$112,000 O: \$3,000 T: \$115,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$115,000 – Funds will be used for surveys and for annual maintenance dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project was constructed in 1990 and has been maintained annually. In 2014, Yellow Bend Port shipped 350,539 tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

CALIFORNIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Butte Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Stony Creek, a tributary of the Sacramento River, about nine miles west of the town of Orland, CA in the Counties of Glenn and Tehama. The project consists of an earthen-fill dam, six dikes, spillway, and reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,479,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation, and environmental stewardship. Non-routine activities totaling \$250,000 included updates to the master plan.

FISCAL YEAR 2017 ALLOCATION: \$3,055,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation, and environmental stewardship. Non-routine activities planned include boundary inspection in the amount of \$300,000, purchasing a vehicle-borne fire pumper unit in the amount of \$15,000, and wildlife and habitat management in the amount of \$38,000.

BUDGETED AMOUNT FOR FY 2018: M: \$643,000 O: \$2,262,000 T: \$2,905,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$1,681,000 - Funding will be used for routine operation and maintenance for flood risk management. Amount includes \$75,000 for non-routine activity (arc flash hazard analysis).

REC: \$947,000 - Funding will be used for routine operation and maintenance for recreation. Amount includes \$100,000 for non-routine activities (ADA restroom upgrades). There is a total of \$30,000 for sustainability work on this project to include installation of solar panels.

H: N/A

EN: \$277,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The Black Butte Lake Archeological District is comprised of 52 sites eligible for inclusion in the National Register of Historic Places.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$129,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buchanan Dam – H.V. Eastman Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is on the Chowchilla River 16 miles northeast of the City of Chowchilla, CA in the Counties of Madera and Mariposa. The project consists of an earthen-fill dam and reservoir for flood control, irrigation, and recreation. The project also includes two miles of channel improvement work and levee construction on Ash and Berenda Sloughs, two tributary channels of the river.

FISCAL YEAR 2016 ALLOCATION: \$1,981,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$2,078,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation, and environmental stewardship. Non-routine activities planned include \$40,000 to purchase and install an ADA restroom.

BUDGETED AMOUNT FOR FY 2018: M: \$528,000 O: \$1,790,000 T: \$2,318,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$1,409,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$210,000 for non-routine activity (installation of solar panels).

REC: \$728,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$181,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$90,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channel Islands Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1954 and P.L. 90-46 (Project name change). Authorization includes use of dredged material to restore and maintain downcoast shoreline due to impacts associated with construction of Port Hueneme.

LOCATION AND DESCRIPTION: Project is in the city of Oxnard in the County of Ventura, California, 65 miles northwest of Los Angeles. Project consists of an entrance channel, sand trap, two basins (entrance & Inner), an offshore breakwater, and two jetties (north and south).

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$8,380,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 activities include maintenance dredging of the entrance channel and sand trap with placement of dredged material on downcoast shorelines to allow for safe transit by commercial and recreational vessels and to restore downcoast shoreline which are currently severely eroded, and engineering and design of the South Jetty and Breakwater repair.

BUDGETED AMOUNT FOR FY 2018: M: \$6,400,000 O: \$0 T: \$6,400,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,400,000 - Funds will be used for maintenance dredging of the entrance channel and sand trap.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor entrance is in a high wave energy environment and critical routine dredging is required to keep the entrance safe for navigation. The harbor is home port to U.S. Coast Guard vessels, Harbor Patrol emergency response vessels, charter fishing, diving, whale watching boats, and is also used by vessels servicing the offshore oil platforms. Approximately 120,000 vessel passages are made annually. The US Navy contributes 19% of dredging costs. Dredging sediment from the project is placed on downcoast beaches to protect infrastructure.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$70,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coyote Valley Dam, Lake Mendocino, CA

AUTHORIZATION: Flood Control Act of 1950, Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: Lake Mendocino, also known as Coyote Valley Dam, is on the Russian River five miles northeast of the city of Ukiah in the County of Mendocino. The dam is an earthen-fill structure with a reservoir. The Coyote Valley Dam project was completed in 1959 for flood control, water supply, recreation, and stream-flow regulation. Authorization for environmental mitigation was added in 1974.

FISCAL YEAR 2016 ALLOCATION: \$3,787,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply. Non-routine activities totaling \$315,000 included management of invasive species.

FISCAL YEAR 2017 ALLOCATION: \$4,284,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply. Non-routine activities totaling \$676,000 include habitat improvement and updating the Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$1,327,000 O: \$2,514,000 T: \$3,841,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,182,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$155,000 to repair and reconfigure the dam drainage.

RC: \$1,448,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$172,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$58,000 for trail repair due to erosion damage.

WS: \$39,000 - Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: The fish imprinting facility at this project is operated in conjunction with the fish hatchery at Warm Springs Dam (Dry Creek project). The Warm Springs Hatchery supports the last stock of the California Central Coast Coho. If this stock was to perish the subspecies would become extinct. A reconnaissance study and a Continuing Authorities Program study were initiated in FY 2014 to evaluate opportunities to comply with the Russian River 2008 Jeopardy Biological Opinion, including enhancement of nationally and regionally scarce wetlands and riparian habitat. A reconnaissance report was completed in FY 2014.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$164,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: San Francisco

Coyote Valley Dam,
Lake Mendocino, CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dry Creek (Warm Springs) Lake and Channel, CA

AUTHORIZATION: River and Harbor Act of 1962, Title II; Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: Dry Creek Lake and Channel is part of the tributary of the Russian River 75 miles north of the city of San Francisco in the County of Sonoma. It consists of an earthen- and rock-fill dam, and reservoir. The project was completed in 1983 for flood control, water supply, environmental stewardship, and recreation purposes. Authorization for mitigation was added in 1974.

FISCAL YEAR 2016 ALLOCATION: \$6,172,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply. Non-routine activities totalling \$434,000 included energy efficiency upgrades to lighting systems and invasive species management..

FISCAL YEAR 2017 ALLOCATION: \$6,888,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply. Non-routine activities planned totaling \$931,000 include energy efficiency upgrades, invasive species management, boundary inspections, and updating the Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$2,119,000 O: \$4,351,000 T: \$6,470,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,056,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$30,000 to repair the spillway wall.

RC: \$2,040,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$297,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Non-routine activities include replacing the HVAC system in the Fish Hatchery (\$114,000).

WS: \$77,000 - Funds will be used for routine operation and maintenance of the service gates for the water supply purposes.

OTHER INFORMATION: The fish hatchery supports the last stock of the California Central Coast Coho. If this stock was to perish the subspecies would become extinct. A reconnaissance report was completed in FY 2014. The project was authorized for construction in the Water Resources Reform and Development Act of 2014. A feasibility study is ongoing and the Director's Report is due to complete in FY 2019. A reconnaissance study and a Continuing Authorities Program study were initiated in FY 2014 to evaluate opportunities to comply with the Russian River 2008 Jeopardy Biological Opinion, including enhancement of nationally and regionally scarce wetlands and riparian habitat. The project is nearing completion of the feasibility phase and will move to design and implementation in FY 2018.

Division: South Pacific

District: San Francisco

Dry Creek (Warm Springs
Lake and Channel), CA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$200,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: San Francisco

Dry Creek (Warm Springs
Lake and Channel), CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Farmington Dam, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Littlejohn Creek three miles upstream from Farmington and 18 miles east of the city of Stockton in the Counties of San Joaquin and Stanislaus. The project consists of an earthen-fill dam, spillway, and reservoir.

FISCAL YEAR 2016 ALLOCATION: \$427,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management.

FISCAL YEAR 2017 ALLOCATION: \$478,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management.

BUDGETED AMOUNT FOR FY 2018: M: \$99,000 O: \$518,000 T: \$617,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$617,000 – Funds will be used for routine operation and maintenance for flood risk management.

REC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: There are no recreation facilities.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$42,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hidden Dam – Hensley Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located on the Fresno River 15 miles northeast of the city of Madera in the County of Madera. The project consists of an earthen-fill dam and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,158,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation, and environmental stewardship. Non-routine activities planned include \$30,000 for energy efficiency upgrades to lighting systems.

FISCAL YEAR 2017 ALLOCATION: \$2,377,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation, and environmental stewardship. Non-routine activities planned include \$200,000 for master plan updates.

BUDGETED AMOUNT FOR FY 2018: M: \$763,000 O: \$1,755,000 T: \$2,518,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$1,458,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$45,000 to remove a two-foot diameter tree stump from the dike face.

REC: \$959,000 - Funds will be used for routine operation and maintenance for recreation. Amount includes \$230,000 for non-routine activities (replacement of restroom roofing and installation of solar panels).

H: N/A

EN: \$101,000 - Funds will be used for routine operation and maintenance environmental stewardship.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$97,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Humboldt Harbor and Bay, CA

AUTHORIZATION: River and Harbor Acts of 1910 and 1930, Rivers and Harbors Act of 1935, and River and Harbor Act 1968

LOCATION AND DESCRIPTION: The project is a low-use, deep-draft harbor 280 miles north of the city of San Francisco at the city of Eureka in the County of Humboldt. The project includes jetties, bar and entrance channels, and interior channels (North Bay, Samoa, Eureka, and Fields Landing). The permanently designated Humboldt Open Ocean Disposal Site is utilized for disposal of all dredged materials.

FISCAL YEAR 2016 ALLOCATION: \$8,045,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included annual jetty inspections and maintenance dredging of the bar and entrance channels by a combination of the U.S. Army Corps of Engineers' (USACE) vessels ESSAYONS and YAQUINA, and the west coast regional hopper contract administered by Portland District.

FISCAL YEAR 2017 ALLOCATION: \$4,540,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of the bar and entrance channels by the USACE vessel ESSAYONS, inspection of jetties, and repair of jetties.

BUDGETED AMOUNT FOR FY 2018: M: \$5,500,000 O: \$0 T: \$5,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,500,000 - Funds will be used for annual maintenance dredging of the bar and entrance channels by the USACE vessel ESSAYONS.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Humboldt Harbor is the only deep-draft Harbor of Refuge between San Francisco Bay and Coos Bay, Oregon (500 miles).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$674,000. There was an additional \$60,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Isabella Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is in the County of Kern 50 miles northeast of the city of Bakersfield near the confluence of the north and south forks of the Kern River. The project comprises an earthen-fill dam, an earthen-fill auxiliary dam (about one-half mile east of the main dam), a concrete spillway, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,250,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management and environmental stewardship. Non-routine activities planned include \$150,000 for master plan updates.

FISCAL YEAR 2017 ALLOCATION: \$1,582,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management and environmental stewardship. Non-routine activities planned include \$150,000 for additional master plan updates.

BUDGETED AMOUNT FOR FY 2018: M: \$2,383,000 O: \$1,155,000 T: \$3,538,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$3,391,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$2,000,000 to repair cavitation on the main dam.

REC: N/A

H: N/A

EN: \$147,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Recreation is managed by the U.S. Forest Service. The project is currently not fully able to provide the benefits for which it was designed and constructed due to seismic issues and seepage problems. A Dam Safety Modification Study was conducted and the Record of Decision (Dam Safety Modification Report (DSMR)) approved in December of 2012. The Dam Safety Modification (Construction) project is currently in progress, reviewing the 95% design plan, updating required environmental documentation, and acquiring necessary real estate.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$87,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Los Angeles – Long Beach Harbors, CA

AUTHORIZATION: River and Harbor Act of 1871 (amended WRDA 1976, 1988, and 1996)

LOCATION AND DESCRIPTION: The project is located in the cities of Los Angeles (LA) and Long Beach (LB), CA. The project serves two independent commercial ports (LA and LB) within San Pedro Bay as well as a commercial ferry terminal and recreational marina adjacent to the Los Angeles River Estuary (LARE). The project consists of two entrance channels, three stone breakwaters, a network of deepwater channels ranging in depth from -45 feet to -76 feet within the ports, and a -20 feet channel in the LARE.

FISCAL YEAR 2016 ALLOCATION: \$19,620,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included repairing the breakwater, to include areas of the San Pedro breakwater.

FISCAL YEAR 2017 ALLOCATION: \$6,083,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of both ports.

BUDGETED AMOUNT FOR FY 2018: M: \$4,470,000 O: \$0 T: \$4,470,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,470,000 - Funds will be used for maintenance dredging of the Los Angeles River Estuary.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project supports the first and second busiest US container ports. Long Beach has also been identified as a national strategic port. The federal channel in the estuary supports the ferry operation from Long Beach to Catalina Island, approximately 26 miles south of Long Beach. The ferry operation is used as the primary evacuation route for emergency personnel (as demonstrated by the 2007 Avalon Fire on Catalina Island).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,799,000 of which \$5,570,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Los Angeles County Drainage System, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Project consists of the following:

- a. Hansen Dam is four miles east of the City of San Fernando
- b. Lopez Dam is two miles northeast of the City of San Fernando
- c. Santa Fe Dam is 15 miles northeast of the City of Los Angeles
- d. Sepulveda Dam is 25 miles northwest of the City of Los Angeles
- e. Whittier Narrows Dam is ten miles east of the City of Los Angeles
- f. Los Angeles County Drainage Area Channels consist of 517 miles of channels, of which 38 miles are maintained by the U.S. Army Corps of Engineers and the remainder by Los Angeles County Department of Public Works

Note: Recreation areas exist at all dams except Lopez.

FISCAL YEAR 2016 ALLOCATION: \$11,844,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities include removal of temporary flood barriers, an interim risk reduction measure to address forecasted El Nino conditions; replacement of a generator at Sepulveda Dam; vegetation and debris removal in the Los Angeles River; priority repairs to Los Angeles River channels; and interim risk reduction planning efforts to address issues throughout the project, but targeted at Whittier Narrows and along the Los Angeles River.

FISCAL YEAR 2017 ALLOCATION: \$17,447,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Amount includes \$10,150,000 for non-routine maintenance activities (rehabilitation of electrical, hydraulic, and mechanical infrastructure, Los Angeles River concrete invert repair, and Whittier Narrows Dam spillway repair).

BUDGETED AMOUNT FOR FY 2018: M: \$7,713,000 O: \$10,269,000 T: \$17,982,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$17,304,000 - Funds will be used for routine operation and maintenance of six flood risk management projects. Amount includes \$7,065,000 for implementation of structural and non-structural interim risk reduction measures at Whittier Narrows Dam, \$1,452,000 for sediment removal (phase 1 of 6), and \$1,986,000 for Whittier Narrows Dam Spillway gate repairs.

RC: \$435,000 - Funds will be used for routine operation and maintenance for oversight of leased recreation areas.

H: N/A

EN: \$243,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$60,000 for updates to the Master Plans.

WS: N/A

Division: South Pacific

District: Los Angeles

Los Angeles County Drainage Area, CA

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$55,000. There was an additional \$14,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Merced County Streams, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located in the Counties of Merced and Mariposa. The project consists of the following flood control improvements:

- a. Five flood retention dams:
 - i. Mariposa, 88 feet-high (15,000 acre-feet), 18 miles east of Merced, CA.
 - ii. Owens 75 feet-high (3,600 acre-feet), 16 miles east of Merced, CA.
 - iii. Bear, 92 feet-high (7,700 acre-feet), 16 miles east of Merced, CA.
 - iv. Burns, 53 feet-high (7,000 acre-feet), 13 miles northeast of Merced, CA.
 - v. Castle, 40 feet-high (6,400 acre-feet), 6 miles northwest of Merced, CA.
- b. Black Rascal and Owens Diversion Canals; and
- c. Channel improvements on various streams in the vicinity of Merced, CA.

FISCAL YEAR 2016 ALLOCATION: \$383,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management.

FISCAL YEAR 2017 ALLOCATION: \$484,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management.

BUDGETED AMOUNT FOR FY 2018: M: \$179,000 O: \$631,000 T: \$810,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$810,000 - Funds will be used for routine operation and maintenance for flood risk management.

REC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: There are no recreation facilities.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$26,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mojave River Dam, CA

AUTHORIZATION: Rivers and Harbors Act of 1960, Title II (PL 86-845)

LOCATION AND DESCRIPTION: The project is 100 miles east of the City of Los Angeles in the County of San Bernardino. It consists of an earthen-fill dam, service and spillway roads, outlet works, an earthen-fill saddle dike, a reservoir, and a recreation area.

FISCAL YEAR 2016 ALLOCATION: \$600,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities included planning efforts to repair the dam invert and surveying sediment in the dam basin.

FISCAL YEAR 2017 ALLOCATION: \$375,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$590,000 O: \$715,000 T: \$1,305,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$742,000 - Funds will be used for routine operation and maintenance for flood risk management.

RC: \$80,000 - Funds will be used for routine operation and maintenance for oversight of leased recreation areas.

H: N/A

EN: \$483,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$125,000 for initiation of a Master Plan and \$180,000 for boundary surveying and rectification.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morro Bay Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1945

LOCATION AND DESCRIPTION: The low-use, deep-draft harbor is located halfway between the cities of Los Angeles and San Francisco in the County of San Luis Obispo. The project consists of the breakwaters, Entrance Channel, Main Channel, Navy Channel, Morro Channel, and sand trap.

FISCAL YEAR 2016 ALLOCATION: \$7,129,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included maintenance dredging of the Entrance Channel by the USACE vessel YAQUINA, and maintenance dredging of Morro Channel and sand trap by contract. Non-routine activities totaling \$400,000 included performing a comprehensive condition survey of the breakwaters.

FISCAL YEAR 2017 ALLOCATION: \$4,400,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for maintenance dredging of the Entrance Channel, Morro Channel, Navy Channel, and sand trap by the USACE vessel YAQUINA and by contract.

BUDGETED AMOUNT FOR FY 2018: M: \$2,200,000 O: \$0 T: \$2,200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,200,000 - Funds will be used for routine maintenance dredging of the entrance channel by the USACE vessel YAQUINA.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor entrance is in a high wave energy environment and routine dredging is required annually to keep the entrance safe for navigation. The harbor is a Critical Harbor of Refuge and includes a US Coast Guard station.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$107,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Hogan Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is 28 miles northeast of the city of Stockton in the County of Calaveras, and located on the Calaveras River. It consists of a rock-fill dam with an impervious earth core, four dikes, spillway, and reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,963,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation, environmental stewardship, and water supply.

FISCAL YEAR 2017 ALLOCATION: \$3,058,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation, environmental stewardship, and water supply.

BUDGETED AMOUNT FOR FY 2018: M: \$702,000 O: \$2,560,000 T: \$3,262,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$2,054,000 - Funds will be used for routine operation and maintenance for flood risk management.

REC: \$975,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$171,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$62,000 - Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$167,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Melones Lake (Downstream Channel), CA

AUTHORIZATION: Flood Control Act of 1944, Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located in the Counties of Calaveras, San Joaquin, Stanislaus, and Tuolumne. The project extends along the Stanislaus River from Goodwin Dam to its confluence with the San Joaquin River. The project provides recreation access to the Lower Stanislaus River.

FISCAL YEAR 2016 ALLOCATION: \$1,978,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$2,695,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation and environmental stewardship. Non-routine activities include eradication of Himalayan blackberry bushes in the amount of \$500,000 and professional survey of easement boundaries in the amount of \$225,000.

BUDGETED AMOUNT FOR FY 2018: M: \$1,125,000 O: \$1,392,000 T: \$2,517,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$385,000 - Funds will be used for routine operation and maintenance for flood risk management.

REC: \$1,275,000 - Funds will be used for routine operation and maintenance recreation. Amount includes \$150,000 for non-routine activity (resurfacing asphalt).

H: N/A

EN: \$857,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$225,000 for non-routine activity (survey of project and easement boundaries).

WS: N/A

OTHER INFORMATION: New Melones Dam was constructed by the U.S. Army Corps of Engineers, but is operated and maintained by the U.S. Bureau of Reclamation as part of the Central Valley project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$154,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

Division: South Pacific

District: Sacramento

New Melones Lake
(Downstream Channel), CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oakland Harbor, CA

AUTHORIZATION: River and Harbor Acts of 1910, 1917, 1922, 1928, 1930, 1945, and 1962, Water Resource Development Acts of 1986 and 1999

LOCATION AND DESCRIPTION: Oakland Harbor is a high-use, deep-draft harbor located on San Francisco Bay in Alameda County, California. The project includes Inner and Outer Harbors and a jetty. The project includes monitoring the Sonoma Baylands Wetland Demonstration Site and reimbursement to Alameda County for operation and maintenance of the Fruitvale Avenue railroad bridge.

FISCAL YEAR 2016 ALLOCATION: \$17,105,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included annual maintenance dredging of the Inner and Outer Harbors, annual environmental monitoring (Sonoma Baylands and San Francisco Deep Ocean Disposal Site), annual operation and maintenance of the Fruitvale Avenue railroad bridge, continued real estate management of the tidal canal, and participation in the development of a regional dredged material management plan for the San Francisco Bay region.

FISCAL YEAR 2017 ALLOCATION: \$21,179,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of the Inner and Outer Harbor Channels. Amount also includes annual operation and maintenance of the Fruitvale Avenue railroad bridge, environmental monitoring at Deep Ocean Disposal Site and Sonoma Baylands Wetlands Demonstration Site, biannual jetty inspection, regional real estate management and disposal in the Inner Harbor Tidal Canal, continuation of regional Dredged Material Management Plan and Environmental Impact Statement for dredging and placement activities for all projects in the San Francisco Bay, and geospatial land data migration.

BUDGETED AMOUNT FOR FY 2018: M: \$17,050,000 **O:** \$943,000 **T:** \$17,993,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$17,993,000 - Funds will be used for routine annual maintenance dredging of the Inner and Outer Harbor Channels, operation and maintenance of the Fruitvale Avenue railroad bridge, environmental monitoring of Sonoma Baylands and San Francisco Deep Ocean Disposal Site, and a jetty inspection.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Oakland is the major container facility in San Francisco Bay area and is a National Strategic Port. The project was recently deepened to -50-foot MLLW from -42-foot MLLW.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$287,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: San Francisco

Oakland Harbor, CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oceanside Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1965

LOCATION AND DESCRIPTION: The low-use, deep-draft harbor is located in San Diego County, 30 miles north of the City of San Diego. The project provides for maintenance of the Del Mar Channel (constructed by the U.S. Navy), Oceanside Harbor (constructed by the local interests), and the Entrance Channel.

FISCAL YEAR 2016 ALLOCATION: \$2,715,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging of the harbor by contract. Non-routine activities totaled \$13,000 included migration of geospatial land data into the Corps Map system.

FISCAL YEAR 2017 ALLOCATION: \$3,275,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the harbor by contract.

BUDGETED AMOUNT FOR FY 2018: M: \$2,350,000 O: \$0 T: \$2,350,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,350,000 - Funds will be used to perform maintenance dredging of the harbor entrance channel by contract.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor requires annual dredging to keep the harbor entrance open to support search and rescue vessels, US Navy vessels, US Coast Guard Auxiliary, and local marine vessels. The harbor is also a Critical Harbor of Refuge. Dredged sediment from the project is a critical resource for the replenishment of the downcoast beaches.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$51,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine Flat Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Pine Flat Dam is 25 miles east of the city of Fresno in the County of Fresno and located on the Kings River. The project consists of a straight, gravity-type concrete structure, a spillway in the central section, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$3,375,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$3,440,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$7,281,000 O: \$2,794,000 T: \$10,075,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$8,988,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$2,000,000 for cleaning and recoating sluiceway service and emergency gates, \$4,095,000 for cleaning and recoating the tainter gates, \$200,000 for cleaning the vertical drains, and \$35,000 to review and survey the landslide.

REC: \$952,000 - Funds will be used to for routine operation and maintenance for recreation.

H: N/A

EN: \$135,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$49,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richmond Harbor, CA

AUTHORIZATION: River and Harbor Acts of 1917 and 1930, Rivers and Harbors Acts of 1935, River and Harbor Act of 1938, Rivers and Harbors Act of 1945, and River and Harbor Act of 1954

LOCATION AND DESCRIPTION: Richmond Harbor is a high-use, deep-draft harbor located on San Francisco Bay in the County of Contra Costa. The project includes the Outer and Inner Harbor Channels and a training wall. Authorized project depths of the channels are 38 feet (Inner Harbor) to 45 feet (Outer Harbor).

FISCAL YEAR 2016 ALLOCATION: \$14,051,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included dredging the outer harbor to project depth of 45 feet with the U.S. Army Corps of Engineers (USACE) vessel ESSAYONS. A contract for clamshell dredging of the inner harbor was utilized to dredge the inner harbor to authorized depth of 38 feet.

FISCAL YEAR 2017 ALLOCATION: \$9,052,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for dredging of the inner harbor by contract to authorized depth of 38 feet, or to maximum depth practicable with funds available, and continuation of regional Dredged Material Management Plan and Environmental Impact Statement for dredging and placement activities for all projects in the San Francisco Bay.

BUDGETED AMOUNT FOR FY 2018: M: \$10,800,000 O: \$0 T: \$10,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,800,000 - Funds will be used for annual maintenance dredging of the Inner and Outer Harbors by contract (Inner Harbor) and the USACE vessel ESSAYONS (Outer Harbor). Failure to dredge would result in imposed draft restrictions limiting commercial navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Richmond accounts for over 30-percent of all commercial tonnage in San Francisco Bay. The Port of Richmond is the major tanker terminal and break bulk (goods that must be loaded individually, not in bulk) port in San Francisco Bay.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$860,000. There was an additional \$1,202,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River (30 Foot Channel), CA

AUTHORIZATION: Rivers and Harbors Act of 1946

LOCATION AND DESCRIPTION: The project is located in the Counties of Sacramento, Yolo, and Solano. The Sacramento Deep Water Ship Channel is a low-use, deep-draft project authorized to maintain a 30-foot deep channel for the upper 43 miles of an 80-mile long ship channel. It connects the Port of West Sacramento with the Pacific Ocean. The project also includes 33 miles of dual purpose navigation and flood protection levees.

FISCAL YEAR 2016 ALLOCATION: \$1,089,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included maintenance dredging by contract and levee maintenance.

FISCAL YEAR 2017 ALLOCATION: \$3,000,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging to full channel capacity and emergency dredging by contract and levee maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$1,200,000 O: \$0 T: \$1,200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,200,000 - Funding will be used for routine operation and maintenance for navigation including maintenance dredging and levee maintenance.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The ship channel is an integral component of the California Bay Delta ecosystem and supports the Port of West Sacramento which is a vital link to California's agriculture industry. The latest commercial tonnage of goods shipped through the harbor is 260,000 tons. The only U.S. Coast Guard station in the California Bay Delta is located along the channel. Overall responsibility for the project transferred to San Francisco District effective in FY 2015, although levee maintenance will continue to be managed by Sacramento District.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$551,000. There was an additional \$11,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River and Tributaries, CA

AUTHORIZATION: Rivers and Harbors Act of 1935

LOCATION AND DESCRIPTION: Englebright Dam is 20 miles east of the city of Marysville in the County of Yuba on the Yuba River. North Fork Dam is 5 miles northeast of Auburn, CA in Nevada County on the American River. The thin wall concrete arch dams hold back hydraulic mining sediment and debris to prevent navigation impacts downstream. The project was originally constructed by the California Debris Commission and was transferred to the Corps in 1986. The Corps administers the recreation program at Englebright. The US Bureau of Reclamation administers recreation at North Fork Dam by outgrant to the California State Parks system.

FISCAL YEAR 2016 ALLOCATION: \$2,022,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for navigation, recreation, and environmental stewardship. Non-routine activities included \$500,000 for security upgrades and \$150,000 for periodic inspections

FISCAL YEAR 2017 ALLOCATION: \$1,648,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for navigation, recreation, and environmental stewardship. Non-routine activities planned include \$100,000 for boundary surveying and rectification and \$100,000 for an arc flash hazard analysis.

BUDGETED AMOUNT FOR FY 2018: M: \$297,000 O: \$1,428,000 T: \$1,725,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: \$665,000- Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

REC: \$671,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$389,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$250,000 for non-routine activities (cultural and historic resources survey, and boundary survey).

WS: N/A

OTHER INFORMATION: The Sacramento District was involved in litigation brought by the South Yuba River Citizens League regarding project impacts to Endangered Species Act listed species (salmon, steelhead and green sturgeon). As a result of the litigation, the Corps issued a Biological Assessment in October 2013 clarifying the discretionary activities at the dams. In May 2014, National Marine Fisheries Service issued a letter of concurrence that the proposed project is not likely to adversely affect the listed species.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$104,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

Division: South Pacific

District: Sacramento

Sacramento River and Tributaries, CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River (Shallow Draft Channel), CA

AUTHORIZATION: Rivers and Harbors Act of 1899, Rivers and Harbors Act of 1912, Rivers and Harbors Act of 1927, Rivers and Harbors Act of 1935, Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The project is located in the Counties of Colusa, Glenn, Placer, Solano, Tehama, and Yolo. The low-use, shallow draft harbor project consists of the following segments:

- a. a 60-mile long, 10-foot deep channel, from Suisun Bay to Sacramento
- b. a 85-mile long, 6-foot deep channel between Sacramento and Colusa
- c. a 50-mile long, 5-foot deep channel between Colusa and Chico Landing
- d. a 53-mile long channel at "such depth as practicable" between Chico Landing and Red Bluff.

The reach from Colusa to Red Bluff was de-authorized by Water Resources Development Act of 1986.

FISCAL YEAR 2016 ALLOCATION: \$400,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for navigation. Non-routine activities totaling \$240,000 include safety buoy operations.

FISCAL YEAR 2017 ALLOCATION: \$175,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$175,000 T: \$175,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: \$175,000 - Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

REC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Sacramento River is a heavily used waterway by recreational vessels.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$31,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

Division: South Pacific

District: Sacramento

Sacramento River
(Shallow Draft Channel), CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Bay Delta Model Structure, CA

AUTHORIZATION: Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: The San Francisco Bay Delta Model Regional Visitor Center (BMVC) is located in the city of Sausalito in the County of Marin. The Class A Visitor Center has hundreds of historical exhibits and STEM (science, technology, engineering, and mathematics) related exhibits as well. The centerpiece exhibit is a historical hydraulic to scale three-dimensional model of the greater San Francisco Bay Area and Delta covering one and one half acres. Building also houses the historical significant exhibits showcasing U.S. Army Corps of Engineers (USACE) missions, the model, and the Marin Shipyard during WWII.

FISCAL YEAR 2016 ALLOCATION: \$991,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for recreation. Non-routine activities included physical completion of energy efficiency upgrades to restrooms and HVAC unit replacement.

FISCAL YEAR 2017 ALLOCATION: \$1,096,000 2/

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for recreation. Non-routine activities planned totaling \$112,000 include installation of a floating dock and a pollinator exhibit garden.

BUDGETED AMOUNT FOR FY 2018: M: \$178,000 O: \$1,387,000 T: \$1,565,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,050,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$515,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Funds will also be used for non-routine activities to initiate the Master Plan (\$500,000).

WS: N/A

OTHER INFORMATION: The facility receives well over 200,000 visitors (60% school children) per year to learn about USACE missions. The BMVC fulfills the USACE Strategic Communication goals by providing public and curriculum-based tours, special events, workshops, and seminars on the Corps' modern missions and water resource developments projects. It emphasizes the historical significance of the Marin Shipyard during World War II and the actual model used in USACE decision making. The Bay Model building also houses the district Emergency Operations Center. The Bay Model building is a "net zero" facility as it generates enough electrical power from solar panels to offset all power usage.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$63,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: South Pacific

District: San Francisco

San Francisco Bay Delta
Model Structure, CA

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: San Francisco

San Francisco Bay Delta
Model Structure, CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Bay Long Term Management Strategy (LTMS), CA

AUTHORIZATION: Energy and Water Appropriations Act of 1991

LOCATION AND DESCRIPTION: The project encompasses all dredging and placement occurring in the San Francisco, San Pablo, and Suisun Bays in California. The goals of the LTMS program are as follows:

- a. maintain, in an economically and environmentally sound manner, those channels necessary for navigation
- b. conduct dredged material disposal in the most environmentally sound manner
- c. maximize the use of dredged material as a resource, and establish a cooperative permitting framework for dredging and dredged material disposal applications.

In order to implement these goals, the LTMS Management Plan set dredged material disposal targets at a maximum of 20-percent in-bay, a minimum of 40-percent beneficial reuse, with 40-percent ocean disposal as the safety valve if beneficial reuse sites were not available. All management activities are designed to accomplish these goals.

FISCAL YEAR 2016 ALLOCATION: \$895,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included funding the Dredged Material Management Office (DMMO) for inter-agency coordination, dredged material management for all in-bay dredging, and other annual activities required to manage the LTMS program.

FISCAL YEAR 2017 ALLOCATION: \$600,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for funding the Dredged Material Management Office (DMMO) for inter-agency coordination, dredged material management for all in-bay dredging, and other annual activities required to manage the LTMS program.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$600,000 T: \$600,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$600,000 - Funding will be used for U.S. Army Corps of Engineers (USACE) staff labor for the DMMO and other annual activities required to manage the LTMS program.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The DMMO is a critical component of the San Francisco Bay LTMS for management of unconfined aquatic placement and beneficial use of dredged material. USACE dredging projects are allowed continued use of cost-effective aquatic placement in part due to the oversight and management of aquatic disposal provided by the DMMO.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$574,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: San Francisco

San Francisco Bay Long Term
Management Strategy, CA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor and Bay (Drift Removal), CA

AUTHORIZATION: River and Harbor Act of 1945, House Document 286

LOCATION AND DESCRIPTION: The Drift Removal project is based at the U.S. Army Corps of Engineers (USACE) San Francisco District Operations Base at Richardson Bay in the city of Sausalito in the County of Marin. The project removes floating hazards to navigation using USACE vessels. Large floating debris collection is accomplished by routine patrols on the Bay and in response to calls received from the public and agencies (e.g., U.S. Coast Guard, ports, ferryboat operators, public and private operators, San Francisco Bay harbor pilots.). The areas of operations are San Francisco Bay, San Pablo Bay, Suisun Bay, and portions of the Sacramento and San Joaquin Rivers.

FISCAL YEAR 2016 ALLOCATION: \$4,198,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine removal of floating debris from high commercial use navigation channels, waterways and ports, and routine repairs to USACE vessels. Non-routine activities totaling \$480,000 included debris dock repair designs.

FISCAL YEAR 2017 ALLOCATION: \$3,870,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the routine removal of floating debris from high commercial use navigation channels by USACE vessels. Non-routine activities totaling \$370,000 include debris dock repairs.

BUDGETED AMOUNT FOR FY 2018: M: \$3,500,000 O: \$0 T: \$3,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,500,000 - Funds will be used for the routine removal of hazards to navigation in high commercial use navigation channels, waterways and ports throughout the greater San Francisco Bay area by USACE vessels.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Annually more than 1,200 tons of large debris impeding marine traffic is removed from federal channels. 60% of the debris removed is considered hazardous material which helps clean up the environment. The debris removal operation enables safer and faster marine traffic to all minor and major ports in the greater bay area and the ports of Stockton and Sacramento. This improves the economics of the seven deep-draft ports, including the Port of Oakland, and significantly reduces catastrophic danger to U.S. Coast Guard high speed security vessels, high speed ferry traffic, and recreational ship traffic. The San Francisco Bay Area supports 71,000 annual high speed ferry trips servicing over 2,000,000 commuters, 20,000 ship berths, and over 100,000 shipping industry jobs. The shipping industry is estimated to contribute over \$4.5 billion to the economy.

Division: South Pacific

District: San Francisco

San Francisco Harbor and Bay
(Drift Removal), CA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$108,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor, CA

AUTHORIZATION: River and Harbor Acts of 1927, 1930, and 1935

LOCATION AND DESCRIPTION: The high-use, deep-draft harbor is located five miles west of the Golden Gate Bridge in the waters leading into San Francisco Bay. The San Francisco Main Ship (Bar) Channel is the gateway to San Francisco Bay.

FISCAL YEAR 2016 ALLOCATION: \$2,624,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included annual maintenance dredging of the Bar Channel by contract.

FISCAL YEAR 2017 ALLOCATION: \$3,240,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of the Bar Channel by the U.S. Army Corps of Engineers (USACE) vessel ESSAYONS and participation in the regional dredged material management plan for the San Francisco Bay region.

BUDGETED AMOUNT FOR FY 2018: M: \$3,700,000 O: \$0 T: \$3,700,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,700,000 - Funds will be used for annual maintenance dredging of the Main Ship (Bar) Channel by the USACE vessel ESSAYONS to 55-feet deep.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: All commercial deep-draft and national defense shipping to San Francisco Bay, San Pablo Bay, Suisun Bay, Sacramento, and Stockton must traverse through this project. Extremely hazardous bar conditions resulting from winter storms require annual dredging for safe navigation. Over 60 million tons of waterborne commerce traverse the San Francisco Bar entrance channel annually. With the completion of the 50-foot deep channel at the Port of Oakland, the continued maintenance of the 55-foot deep Bar Channel is essential.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$464,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Joaquin River (Port of Stockton), CA

AUTHORIZATION: Act to Improve Rivers and Harbors of 1876, River and Harbor Act of 1927, and Rivers and Harbors Act of 1950

LOCATION AND DESCRIPTION: The Stockton Deep Water Ship Channel extends 41 miles from the Port of Stockton to the city of Antioch, in the Counties of Contra Costa, Sacramento, and San Joaquin. The project includes the channel, a sediment trap, and bank protection.

FISCAL YEAR 2016 ALLOCATION: \$4,398,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included maintenance dredging by contract.

FISCAL YEAR 2017 ALLOCATION: \$5,767,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging by contract, emergency dredging due to excessive shoaling in the channel, and geospatial data in the Corps Map system.

BUDGETED AMOUNT FOR FY 2018: M: \$3,225,000 O: \$0 T: \$3,225,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,225,000 - Funds will be used for routine maintenance dredging of the channel to the authorized depth of 35 feet.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The ship channel is an integral component of the California Bay Delta ecosystem and supports the Port of Stockton, which is the largest inland and fourth busiest port in California. Approximately 30 cargo vessels pass through the channel each month, taking more than 1,000,000 trucks off area roads annually. The latest commercial tonnage shipped through the project is 5,000,000 tons. The port is a vital link to the agricultural industry of the California Central Valley, handling more than 90-percent of fertilizer used by the regions growers and over 50-percent of California's bagged rice to Japan. Overall responsibility for the project transferred to San Francisco District effective in FY 2015, although levee maintenance will continue to be managed by Sacramento District.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,186,000. There was an additional \$5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Pablo Bay Mare Island Strait, CA

AUTHORIZATION: River and Harbor Acts of 1902, 1911, 1917, 1938, 1945, 1965, and 1968

LOCATION AND DESCRIPTION: San Pablo Bay and Mare Island Strait is a high-use, deep-draft project and is located in the County of Solano. It consists of the Mare Island Strait and Pinole Shoal Channels. Pinole Shoal Channel is authorized to 35-feet deep. Pinole Shoal Channel is 11 miles long and is part of the San Francisco Stockton Ship Channel, a major arterial. Mare Island Strait has not been dredged since the closure of Mare Island Naval Shipyard, but condition surveys are performed periodically.

FISCAL YEAR 2016 ALLOCATION: \$1,228,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included annual maintenance dredging of Pinole Shoal Channel by the U.S. Army Corps of Engineers (USACE) vessel ESSAYONS and participation in the Regional Preliminary Assessment (RPA) for the San Francisco Bay region.

FISCAL YEAR 2017 ALLOCATION: \$3,845,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of the Pinole Shoal Channel by the USACE vessel ESSAYONS, datum corrective action, preparation of the regional Dredged Material Management Plan, Pinole Shoal Channel entrapment monitoring, and advance maintenance dredging for two reaches.

BUDGETED AMOUNT FOR FY 2018: M: \$5,000,000 O: \$75,000 T: \$5,075,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,075,000 - Funds will be used for annual maintenance dredging of the Pinole Shoal Channel in order to provide continued access to refineries, and the ports of Sacramento and Stockton. Amount includes \$75,000 for datum corrective action.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Pinole Shoal Channel provides deep water access to Suisun Bay and the Ports of Sacramento and Stockton. Pinole Shoal Channel supports Military Ocean Terminal Concord, a strategic US military seaport in the National Port Readiness Network.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,862,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Ana River Basin, CA

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Project consists of the following:

- a. Brea Dam is located two miles north of Fullerton.
- b. Carbon Canyon Dam is located 16 miles northeast of Santa Ana.
- c. Fullerton Dam is located two miles northeast of Fullerton.
- d. Prado Dam is located 45 miles east of Los Angeles.
- e. San Antonio Dam is located eight miles north of Pomona.
- f. San Antonio and Chino Creeks Channels are located 30 miles east of Los Angeles and includes 16 miles of channel.

All dams except San Antonio have recreation areas.

FISCAL YEAR 2016 ALLOCATION: \$4,476,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities include rehabilitation of gates at Brea Dam; initiating efforts to revise the Prado Master Plan; and oil spill remediation at an abandoned facility within Prado Dam basin.

FISCAL YEAR 2017 ALLOCATION: \$4,871,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities planned include electrical rehabilitation at Brea Dam.

BUDGETED AMOUNT FOR FY 2018: M: \$2,919,000 O: \$2,660,000 T: \$5,579,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,942,000 - Funds will be used for routine operation and maintenance of six flood risk management projects. Amount includes \$568,000 for non-routine activity (rehabilitation and/or replacement of major components at Prado Dam).

RC: \$351,000 - Funds will be used for routine operation and maintenance for oversight of leased recreation areas.

H: N/A

EN: \$286,000 - Funds will be used for routine operation and maintenance for environmental stewardship. Amount includes \$10,000 for updates to the Master Plan.

WS: N/A

OTHER INFORMATION: There are several areas along the flood control channel and levee system that provide less than a 100-year level of protection.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$91,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: South Pacific

District: Los Angeles

Santa Ana River Basin, CA

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Barbara Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1935 and 1945

LOCATION AND DESCRIPTION: The project is 90 miles northwest of the city of Los Angeles and is located in the County of Santa Barbara. The project consists of entrance and interior channels. The project is authorized for 15-foot deep interior channels and a 20-foot deep entrance channel. The USCG cutter vessel BLACKFIN is stationed in the harbor, along with a USCG Marine Safety Detachment.

FISCAL YEAR 2016 ALLOCATION: \$3,812,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included maintenance dredging of the project by contract.

FISCAL YEAR 2017 ALLOCATION: \$4,095,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the project by contract.

BUDGETED AMOUNT FOR FY 2018: M: \$3,080,000 O: \$0 T: \$3,080,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,080,000 - Funds will be used for maintenance dredging of the project by contract.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project supports a strategic Coast Guard station, is a Critical Harbor of Refuge, and provides safe navigation for various types of commercial and recreational vessels. Impact on harbor businesses which provide goods and services to residents and visitors is over \$50 million per year. Commercial users of the harbor include a \$10,000,000-per-year fishing industry, cruise ships, sport fishing, charters, and whale watching tours. Clean Seas Corporation has two oil spill response vessels stationed in the harbor to provide quick response for 22 offshore oil platforms.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$78,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Success Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Tule River, six miles east of the city of Porterville in the County of Tulare. The project comprises an earthen-fill dam, a spillway, an auxiliary earthen-fill dam, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,399,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation and environmental stewardship. Non-routine activities included \$60,000 for a boundary survey.

FISCAL YEAR 2017 ALLOCATION: \$2,509,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation and environmental stewardship. Non-routine activities planned include \$240,000 for additional GPS boundary surveys and rectification.

BUDGETED AMOUNT FOR FY 2018: M: \$1,421,000 O: \$2,033,000 T: \$3,454,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$2,563,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$700,000 for non-routine activity (repair of bulkhead gate).

REC: \$776,000 - Funds will be used for routine operation and maintenance recreation.

H: N/A

EN: \$115,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed. Over the past 15 years multiple studies were performed to analyze the safety risk of Success Dam in its current state (without the spillway enlargement project). Analyses were completed in December 2015 and indicated that overtopping/overwash were actionable failure modes; thus, efforts for a Dam Safety Modification Report (DSMR), are warranted.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$62,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Suisun Bay Channel, CA

AUTHORIZATION: River and Harbor Acts of 1927 and 1930, Rivers and Harbors Act of 1935 and 1960

LOCATION AND DESCRIPTION: Suisun Bay Channel is a moderate-use, deep-draft project 30 miles northeast of the city of San Francisco in the County of Contra Costa. The project consists of the main channel and New York Slough. Authorized project depth of the main channel is 35 feet. Bullshead Reach is a critical maneuvering area in the main channel with a high shoaling rate.

FISCAL YEAR 2016 ALLOCATION: \$2,977,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included annual maintenance dredging of the main channel by the U.S. Army Corps of Engineers (USACE) vessel ESSAYONS, a shoaling analysis of the SF-16 open water disposal site, and participation in the Regional Preliminary Assessment (RPA) for the San Francisco Bay region.

FISCAL YEAR 2017 ALLOCATION: \$4,061,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for annual maintenance dredging of the main channel (including Bullshead Reach) by contract, continuation of the regional dredge material management plan, and geospatial data into the Corps Map system.

BUDGETED AMOUNT FOR FY 2018: M: \$7,000,000 O: \$800,000 T: \$7,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$7,800,000 - Funds will be used for annual maintenance dredging of the main channel (including Bullshead Reach) by contract in order to prevent draft restrictions to oil tankers, and to provide continued access to refineries and the ports of Sacramento and Stockton. Amount includes \$800,000 for non-routine activities (entrainment studies).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: All commercial deep draft and national defense shipping to Sacramento and Stockton must traverse through this project. The channels provide access to Ports of Sacramento, Stockton, and Concord Naval Weapons Station. It also supports Military Ocean Terminal Concord, a strategic US military seaport in the National Port Readiness Network.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,655,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Terminus Dam (Lake Kaweah), CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is 20 miles east of the city of Visalia in the County of Tulare, and is located on the Kaweah River. The project consists of an earthen-fill dam, an auxiliary earthen-fill dam, fuse gates, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$4,440,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$2,227,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$3,842,000 O: \$2,108,000 T: \$5,950,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$4,927,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$3,000,000 for non-routine activities (slide gate and steel liner repairs).

REC: \$779,000 - Funds will be used for routine operation and maintenance recreation.

H: N/A

EN: \$244,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$80,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ventura Harbor, CA

AUTHORIZATION: River and Harbor Act of 1968

LOCATION AND DESCRIPTION: The low-use, deep-draft harbor is 65 miles northwest of the city of Los Angeles in the County of Ventura. The project consists of an entrance channel, sand trap, three jetties, the south beach groin, and a detached breakwater.

FISCAL YEAR 2016 ALLOCATION: \$7,282,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included maintenance dredging of the entrance channel and sand trap by contract.

FISCAL YEAR 2017 ALLOCATION: \$5,100,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the entrance channel and sand trap by contract.

BUDGETED AMOUNT FOR FY 2018: M: \$5,163,000 O: \$0 T: \$5,163,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,163,000 - Funds will be used for routine maintenance dredging of the entrance channel by contract.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Ventura Harbor is home to the Channel Islands National Park Visitor Center, whose fleet supplies all provisions to the five islands in the park and provides education, recreation and research support. It is also home to the largest squid fishing fleet on the west coast. The harbor supports law enforcement and search-and-rescue missions in the area. All dredged materials are placed on downcoast shorelines for beneficial reuse.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$93,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yuba River, CA

AUTHORIZATION: Rivers and Harbors Act of 1896, Rivers and Harbors Act of 1902, Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The project consists of a concrete debris barrier (Daguerre Point Dam), protective works (groins), and fish ladders. The project is located in the County of Yuba. The project holds back hydraulic mining sediment and debris to prevent navigation impacts downstream. The project was originally constructed by the California Debris Commission and was transferred to the U.S. Army Corps of Engineers in 1986.

FISCAL YEAR 2016 ALLOCATION: \$1,440,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for navigation and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,512,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for navigation and environmental stewardship and to perform a periodic assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,519,000 T: \$1,519,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: \$1,316,000 - Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

REC: N/A

H: N/A

EN: \$203,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The Sacramento District was involved in litigation brought by the South Yuba River Citizens League regarding project impacts to Endangered Species Act listed species (salmon, steelhead and green sturgeon). As a result of the litigation, the Corps issued a Biological Assessment in October 2013 clarifying the discretionary activities at the dams. In May 2014, National Marine Fisheries Service issued a biological opinion that the proposed action is not likely to jeopardize the continued existence of the federally listed species.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$97,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is estimated to be: \$0.

Division: South Pacific

District: Sacramento

Yuba River, CA

COLORADO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bear Creek Lake, CO

AUTHORIZATION: Flood Control Act of 1968 (P.L. 90-483), Federal Water Project Recreation Act (P.L. 89-72)

LOCATION AND DESCRIPTION: Bear Creek Dam is located in the Denver metropolitan area on the southwest edge of Lakewood at the confluence of Bear Creek and Turkey Creek. Construction was authorized in 1968 and was completed in 1982. The main embankment measures 5,300 feet in length and has a maximum height of 179.5 feet; and the south embankment measures 2,100 feet in length with a maximum height of 65 feet. The reservoir impounded by the dam is 0.5 miles long with a maximum depth of 48 feet at the dam. The primary purpose of the dam is flood damage reduction. Fish and wildlife, and recreation are also authorized purposes.

FISCAL YEAR 2016 ALLOCATION: \$769,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other associated facilities. Significant non-routine work performed includes a periodic assessment/ inspection.

FISCAL YEAR 2017 ALLOCATION: \$437,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$27,000 O: \$449,000 T: \$476,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$416,000 – Funding provides for routine operation and maintenance for flood risk management.

RC: \$9,000 – Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$51,000 - Funding provides for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$4.2 million. The project encompasses 2,313 land acres, 107 water acres with 5 miles of shoreline, and has a total reservoir storage capacity of 30,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 151,497 visits per year, generates approximately \$4.3 million in revenue, and sustains 29 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chatfield Lake, CO

AUTHORIZATION: Emergency Watershed Protection (P.L. 81-516), Water Resources Development Act of 1986 (P.L. 99-662), Federal Water Project Recreation Act (P.L. 89-72), Water Resources Development Act of 1974 (P.L. 93-251)

LOCATION AND DESCRIPTION: Chatfield Dam is located in the Denver metropolitan area southwest of Denver on the South Platte River. Construction was authorized in 1967 and was completed in 1975. The dam measures 13,136 feet in length and has a maximum height of 147 feet. Chatfield Lake is 2.0 miles long with a maximum depth of 47 feet at the intake tower. The project provides benefits to flood damage reduction, fish and wildlife, water supply, and recreation.

FISCAL YEAR 2016 ALLOCATION: \$1,540,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other associated facilities. Significant non-routine work performed included revision of the water control manual and to installation and/or replacement of critical open-tube piezometers.

FISCAL YEAR 2017 ALLOCATION: \$1,702,000

DESCRIPTION OF WORK FOR FY 2017: Funds will be used for the routine operation and maintenance of the dam and other associated facilities. Additional funds will be used for surveys (\$ 75,000) and dewatering and inspection of the stilling basin (\$ 75,000) both in support of the FY-2018 periodic inspection..

BUDGETED AMOUNT FOR FY 2018: M: \$405,000 O: \$1,700,000 T: \$2,105,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,819,000 - Funding provides for routine operation and maintenance for flood risk management and periodic dam safety and bridge inspections. Non-routine activities include install drainage system on north side of spillway structure & channel - phase 2 (\$290,000).

RC: \$170,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$108,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: \$8,000 – Funding provides for management of water supply agreements.

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$11.5 million. The project encompasses 6,745 land acres, 1,422 water acres with 9 miles of shoreline, and has a total reservoir storage capacity of 233,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 740,000 visits per year, generates approximately \$21.3 million in revenue, and sustains 142 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$108,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cherry Creek Lake, CO

AUTHORIZATION: The Flood Control Act of 1941 (PL 77-228), 1944 (PL 78-534), and Fish and Wildlife Coordination Act (PL 79-732)

LOCATION AND DESCRIPTION: Cherry Creek Dam is located in the Denver metropolitan area in Aurora, Colorado. Construction of the dam was authorized in 1948 and was completed in 1950. The dam measures 14,300 feet in length and has a maximum height of 141 feet. Cherry Creek Reservoir is 3.25 miles long with a maximum depth of 46 feet at the intake tower under normal operation. The project provides benefits for flood damage reduction, fish and wildlife, and recreation.

FISCAL YEAR 2016 ALLOCATION: \$1,685,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other associated facilities. Significant non-routine work performed included revision of the water control manual, installation and/or replacement of critical open-tube piezometers, remove woody vegetation from spillway (phase 3) and repair a crack in the intake tower

FISCAL YEAR 2017 ALLOCATION: \$1,159,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities. Additional funds will be used to remove woody vegetation from spillway (phase 4).

BUDGETED AMOUNT FOR FY 2018: M: \$251,000 O: \$904,000 T: \$1,155,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$984,000 - Funding provides for routine operation and maintenance for flood risk management. Non-routine activities include \$179,000 for risk reduction measures to remove vegetation from the emergency spillway.

RC: \$116,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$55,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include pest and invasive species management (\$15,000).

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 total \$1.3 billion. The project encompasses 5,345 land acres, 844 water acres with 8 miles of shoreline, and has a total reservoir storage capacity of 91,900 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 817,000 visits per year, generates approximately \$23.7 million in revenue, and sustains 157 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$44,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: NWD

District: Omaha

Cherry Creek Dam & Lake, CO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Martin Reservoir, CO

AUTHORIZATION: Flood Control Act of 1936 as Caddoa Reservoir, renamed in 1940.

LOCATION AND DESCRIPTION: John Martin Reservoir is located near Hasty in the County of Bent, about midway between the towns of Lamar and Las Animas. It is located on the Arkansas River at river-mile 1159, and 58 miles upstream from the Colorado and Kansas state line. The dam has a concrete section, an earthen section, two earthen wing dikes, and an overflow, gated spillway. A State Park is also located at the project.

FISCAL YEAR 2016 ALLOCATION: \$2,836,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities included ADA upgrades and habitat improvement at Lake Hasty.

FISCAL YEAR 2017 ALLOCATION: \$2,951,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$7,438,000 O: \$1,778,000 T: \$9,216,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$8,273,000 - Funding will be used for routine operation and maintenance for flood risk management. Amount includes \$4,500,000 to dewater, inspect, and armor the stilling basin and \$2,000,000 to dredge reservoir sediment.

RC: \$453,000 - Funding will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$490,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$132,329,500, sediment control benefits \$9,252,000, and irrigation benefits \$33,366,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$177,000. There was an additional \$44,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Trinidad Lake, CO

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Trinidad Dam is located in the County of Las Animas, four miles upstream from the city of Trinidad and 250 miles from the city of Albuquerque, NM. It is located on the Purgatoire River at river mile 160.5, an Arkansas River tributary. The project consists of an earthen-fill dam, spillways, a reservoir, and recreation facilities. The State of Colorado operates and maintains the recreation areas.

FISCAL YEAR 2016 ALLOCATION: \$1,435,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,965,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship. Non-routine activities include stabilizing the Leone Bluff archaeological site (\$400,000).

BUDGETED AMOUNT FOR FY 2018: M: \$4,279,000 O: \$876,000 T: \$5,155,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,841,000 - Funding will be used for routine operation and maintenance for flood risk management. Amount includes \$3,000,000 for replacement of the upstream embankment riprap, \$270,000 for parking lot resurfacing, and \$450,000 to expand and secure the project office site.

RC: \$187,000 - Funding will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$127,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$1,763,000, sediment control benefits \$3,493,000, and irrigation benefits \$3,178,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$157,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

CONNECTICUT

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Black Rock Lake, CT

AUTHORIZATION: The Flood Control Act of 1960 (P.L. 86-645).

LOCATION AND DESCRIPTION: Black Rock Lake is located on Branch Brook, about two miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Black Rock Lake is part of a comprehensive system of flood control within the Housatonic River Basin. The project consists of an earth-filled dam, 933-feet long with a maximum height of 154 feet; an uncontrolled chute spillway, 140-feet wide with a maximum discharge capacity of 33,500 cubic feet-per-second; and a rectangular outlet conduit with two control gates. The reservoir provides a flood storage capacity of 8,755 acre-feet to control runoff from its net drainage area of 20.4 square miles.

FISCAL YEAR 2016 ALLOCATION: \$597,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$25,000 to removed boulders and other material from the spillway.

FISCAL YEAR 2017 ALLOCATION: \$601,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections.

BUDGETED AMOUNT FOR FY 2018: M: \$261,000 O: \$554,000 T: \$815,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$666,000 – Funds will provide for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$50,000 – Funds will provide for routine operation and maintenance. Activities include maintaining trails and other recreation areas for visitor safety.

H: N/A

EN: \$99,000 – Funds will provide for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$320.5 million in flood damages since placed in service in 1971. The project provides recreation opportunities to an average of 64,000 visitors each year and consists of 173 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$259,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Colebrook River Lake, CT

AUTHORIZATION: The Flood Control Act of 1960 (P.L. 86-645).

LOCATION AND DESCRIPTION: Colebrook River Lake is located on the West Branch of the Farmington River, about 8.1 miles above its junction with the main stem of the Farmington River. The project is located in Colebrook, Connecticut, and the pool extends into Sandisfield and Tolland, Massachusetts. Colebrook River Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,300 feet long with a maximum height of 223 feet; an earth-filled dike 1,240 feet long with a maximum height of 54 feet; an uncontrolled ogee weir spillway, 205 feet wide with a maximum discharge capacity of 96,000 cubic feet per second; and a 10-foot diameter outlet tunnel with three control gates. The reservoir provides a flood storage capacity of 97,700 acre-feet to control runoff from its net drainage area of 118 square miles.

FISCAL YEAR 2016 ALLOCATION: \$701,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$20,000 for repairs to Old Route 8 Bridge.

FISCAL YEAR 2017 ALLOCATION: \$709,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$9,000 to conduct required bridge inspections.

BUDGETED AMOUNT FOR FY 2018: M: \$521,000 O: \$716,000 T: \$1,237,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$934,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$61,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$238,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management.

WS: \$4,000 – Provides for routine operation and maintenance. This work includes additional operation of the gates for water releases during low flow periods and coordinating with local entities pertaining to these releases.

OTHER INFORMATION: Project has prevented an estimated \$154.5 million in flood damages since placed in service in 1969. The project provides recreation opportunities to an average of 115,000 visitors each year and consists of 388 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$134,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars

Division: North Atlantic

District: New England

Colebrook River Lake, CT

estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Greenwich Harbor, CT

AUTHORIZATION: Rivers and Harbors Acts of 1919 (P.L. 65-323), 1945 (P.L. 79-14), 1948 (P.L. 80-858); an Act to declare a certain portion of the waterway at Greenwich, Ct a non-navigable stream (P.L. 84-152); and Section 119 of the Water Resources Development Act of 1990 (P.L. 101-640).

LOCATION AND DESCRIPTION: Greenwich is located in the southwest corner of Connecticut near the New York/Connecticut state line. Greenwich Harbor consists of an outer harbor and three inner coves indenting the north shore of Long Island Sound. Project provides for a 12-foot entrance channel, 130 feet wide, from the Outer Harbor to the Town Wharf, thence, generally 100 feet wide, to a point about 50 feet from the head of the harbor, a total length of 1.4 miles; and two anchorages at the west side of the channel, one is 6 feet deep and about 12 acres in area located northeast of Grass Island and the other is 8 feet deep and about 21.5 acres in area located south of Grass Island. The project was constructed in 1951 and last maintained in 1968.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$300,000 O: \$0 T: \$300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$300,000 – Funds will be used to complete environmental coordination and prepare plans and specifications for proposed maintenance dredging of about 300,000 cubic yards of material from the project to restore authorized dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Shoaling of the channel is making passage difficult and having a negative effect on local marine businesses. Public safety and public access to and from Long Island Sound and the viability of water dependent businesses are being jeopardized.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Hancock Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Hancock Brook Lake is located along Branch Brook, about two miles upstream from its confluence with the Naugatuck River in Connecticut. The project is located in Thomaston and Watertown, Connecticut. Hancock Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with spillway and an un-gated outlet conduit.

FISCAL YEAR 2016 ALLOCATION: \$679,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$175,000 to conduct required periodic inspection and assessment of the project. In addition, non-routine work was funded for \$65,000 to perform a seepage evaluation.

FISCAL YEAR 2017 ALLOCATION: \$448,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$186,000 O: \$545,000 T: \$731,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$533,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$51,000 – Funding provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$147,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 4,030 acre-feet to control runoff from its net drainage area of 12 square miles. Project has prevented an estimated \$99.6 million in flood damages since placed in service in 1966. The project provides recreation opportunities to an average of 15,000 visitors each year and consists of 707 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$202,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Hop Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Hop Brook Lake is located on Hop Brook, about 1.4 miles upstream from its confluence with the Naugatuck River in Connecticut. The project is located in Waterbury, Middlebury and Naugatuck, Connecticut. Hop Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$1,102,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$3,000 to conduct a required bridge inspection.

FISCAL YEAR 2017 ALLOCATION: \$1,203,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$8,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$50,000 to complete a comprehensive master plan. There is a total of \$81,000 for sustainability work at this project to include installing a high efficiency pellet stove in the basin office (\$12,000) and installing solar photovoltaic systems at the project and basin offices (\$69,000).

BUDGET AMOUNT FOR FY 2018: M: \$547,000 O: \$1,015,000 T: \$1,562,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1016,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$3,000 to conduct a required bridge inspections. In addition, design and install compliant safety railings at dam tower (\$170,000).

RC: \$282,000 – Provides for routine operation and maintenance activities. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$264,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 6,970 acre-feet to control runoff from its net drainage area of 16.4 square miles. Project has prevented an estimated \$164 million in flood damages since placed in service in 1968. The project provides recreation opportunities to an average of 221,000 visitors each year and consists of 538 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$435,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Mansfield Hollow Lake, CT

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Mansfield Hollow Lake is on the Natchaug River, about 5.3 miles upstream from its confluence with the Willimantic River. The project is in the towns of Windham and Chaplin, Connecticut, and is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 14,050 feet long and a maximum height of 68 feet; six earth-filled dikes with a total length of 2,656 feet and a maximum height of 53 feet; an uncontrolled ogee weir spillway, 690-foot wide with a maximum discharge capacity of 106,600 cubic-feet- per-second; and five rectangular outlet conduits with 26 control gates. The reservoir provides a flood storage capacity of 52,000 acre-feet to control runoff from its net drainage area of 159 square miles.

FISCAL YEAR 2016 ALLOCATION: \$604,000

DESCRIPTIONS OF WORK FOR F Y 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work funded for \$35,000 to perform dam safety investigations including stability analysis of the dike B control tower and underwater inspections of gates 3 and 4.

FISCAL YEAR 2017 ALLOCATION: \$605,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$690,000 O: \$771,000 T: \$1,461,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,358,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. In addition, non-routine work will be funded to perform a video inspection of toe drains and evaluate the necessity of dikes C and F (\$120,000), repair dam crest pavement (\$480,000), and replace gatehouse electrical service (\$100,000).

RC: \$66,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$37,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$248.4 million in flood damages since placed in service in 1952. The project provides recreation opportunities to an average of 276,000 visitors each year and consists of 2,470 fee owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was

Division: North Atlantic

District: New England

Mansfield Hollow Lake, CT

\$111,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Northfield Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Northfield Brook Lake is located in Thomaston, Connecticut, along Northfield Brook, about 1.3 miles upstream from its confluence with the Naugatuck River. Northfield Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 810-feet long and a maximum height of 118 feet; an uncontrolled ogee weir spillway, 72-feet wide with a maximum discharge capacity of 8,800-cubic feet-per-second; and a 3-foot diameter outlet conduit with a control gate. The reservoir provides a flood storage capacity of 2,430 acre-feet to control runoff from its net drainage area of 5.7 square miles.

FISCAL YEAR 2016 ALLOCATION: \$736,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$95,000 to conduct required periodic inspection of the project. In addition, non-routine work was funded for \$130,000 to perform stability and seepage analysis of the dam.

FISCAL YEAR 2017 ALLOCATION: \$491,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$15,000 to conduct required bridge inspections.

BUDGETED AMOUNT FOR FY 2018: M: \$218,000 O: \$512,000 T: \$730,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$447,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$89,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$194,000 - Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$113.3 million in flood damages since placed in service in 1965. The project provides recreation opportunities to an average of 45,000 visitors each year and consists of 208 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$219,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Northfield Brook Lake, CT

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Patchogue River, CT

AUTHORIZATION: Rivers and Harbors Act of 1954 (P.L. 83-780), Section 107 of the Rivers and Harbors Act of 1960 (P.L. 86-645) and Section 364 of the Water Resources Development Act of 1996 (P.L. 104-303).

LOCATION AND DESCRIPTION: The Town of Westbrook is located along the north shore of Long Island Sound, approximately 7 miles west of the mouth of the Connecticut River and 20 miles east of New Haven, Connecticut. The Patchogue River is a small 3-mile tidal stream which flows southwesterly through Westbrook and empties into Long Island Sound. The existing Federal Navigation Project provides for an 8-foot channel and anchorage, and a 600-foot stone jetty extending into Duck Island Roads. The project was completed in November 1956 and last maintained in December 2012. Shoaling has made portions of the project essentially inaccessible to lobstering vessels for several hours on either side of low tide. Vessels using the project are increasingly at risk for damage due to grounding and breaking waves in the 8-foot entrance channel.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$400,000 O: \$0 T: \$400,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$400,000 – Funds will be used to perform maintenance dredging of the 8-foot entrance channel using the government dredge CURRITUCK. About 6,000 cubic yards of sandy material would be removed and placed in a near shore site off Hammonasset Beach State Park.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Federal channel provides access to Long Island Sound for public and private boating facilities located along the Patchogue River in Westbrook. Both recreational and small commercial fishing vessels, including approximately 6 commercial lobstering boats, use the river and harbor. The anchorage also provides refuge to commercial and recreational vessels.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$14,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Patchogue River, CT

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Stamford Hurricane Barrier, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: The Stamford Hurricane Barrier is located along the East and West Branches of Stamford Harbor and Westcott Cove in Stamford, Connecticut. The project includes the East Branch Barrier, an earth-filled dike with rock slope protection, a 90-foot wide gated opening for navigation and a 45,000 gallon-per-minute pump station to handle interior drainage. The project includes protection along the West Branch of Stamford Harbor, consisting of 1,349 feet of concrete wall, 160 feet of sheet pile bulkhead wall, 2,950 feet of earth-filled dike and a 229,500 gallon-per-minute pump station. The project also includes protection along Westcott Cove consisting of 4,400 feet of earth-filled dike and two pump stations with a total capacity of 85,500 gallons-per-minute.

FISCAL YEAR 2016 ALLOCATION: \$526,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$626,400

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. There is a total of \$148,000 of sustainability work on this project to install energy efficient windows in the control tower (\$26,000), installing a solar photovoltaic system at the project (\$107,000) and upgrading critical navigation lighting to LED lights (\$15,000).

BUDGETED AMOUNT FOR FY 2018: M: \$344,000 O: \$440,000 T: \$784,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$784,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation.

RC: N/A

H: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$101.9 million in flood damages since placed into service in 1969.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$181,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Thomaston Dam, CT

AUTHORIZATION: The Flood Control Act of 1944.

LOCATION AND DESCRIPTION: Thomaston Dam is located along the Naugatuck River, 30.4 miles upstream from its confluence with the Housatonic River. The project is located in Thomaston, Litchfield, Harwinton, and Plymouth, Connecticut. Thomaston Dam is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with an uncontrolled side channel spillway and a gated-outlet.

FISCAL YEAR 2016 ALLOCATION: \$1,016,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. Funding includes \$19,000 to conduct required bridge inspections and \$95,000 to conduct a required periodic inspection of the project. In addition, non-routine work is funded for \$48,000 to complete work on the project master plan.

FISCAL YEAR 2017 ALLOCATION: \$800,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. Funding includes \$8,000 to conduct required bridge inspections.

BUDGETED AMOUNT FOR FY 2018: M: \$1,062,000 O: \$830,000 T: \$1,892,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,560,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections, patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. Funds of \$10,000 will be used to conduct required bridge inspections. In addition, non-routine work will be funded for \$62,000 to clean and inspect the dam hydraulic power unit motors and complete mechanical upgrades. Additional funds will provide for potable public water system upgrades (\$45,000), repair dam tower air vent intake grate (\$50,000), and spillway channel rock removal and clean spillway weep holes (\$288,000).

RC: \$91,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$241,000 – Provides for routine operation and maintenance activities. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 42,000 acre-feet to control runoff from its net drainage area of 97.2 square miles. Project has prevented an estimated \$1,406.4 million in flood damages since placed in service in 1960. The project provides recreation opportunities to an average of 160,000 visitors each year and consists of 849 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$352,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars

Division: North Atlantic

District: New England

Thomaston Dam, CT

estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: West Thompson Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: West Thompson Lake is located along the Quinebaug River, in the Town of Thompson, Connecticut. West Thompson Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,550-feet long and a maximum height of 69.5 feet; an earth-filled dike 1,650-feet long with a maximum height of 30 feet; an uncontrolled L-shaped ogee weir spillway, 320-feet wide with a maximum discharge capacity of 63,000-cubic feet-per-second; and a 12-foot diameter horseshoe-shaped outlet conduit with three control gates.

FISCAL YEAR 2016 ALLOCATION: \$1,735,000

DESCRIPTION OF WORK FOR FY 2016: FY2016 funds were used to perform routine operation and maintenance of the project. These funds include \$19,000 to conduct required bridge inspections and \$175,000 to conduct required periodic inspection and assessment of the project. In addition, non-routine work was funded for \$165,000 to replace the gatehouse roof, \$120,000 to upgrade the electrical and communication services to the gatehouse, \$250,000 to complete access road improvements and \$350,000 to install piezometers and take additional borings to supplement the seepage analysis.

FISCAL YEAR 2017 ALLOCATION: \$661,000

DESCRIPTIONS OF WORK FOR FY 2017: FY2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$451,000 O: \$582,000 T: \$1,033,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$901,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections. Additional funds provide for installation of a log boom (\$275,000).

RC: \$89,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$43,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 26,800 acre-feet to control runoff from its net drainage area of 173.5 square miles. Project has prevented an estimated \$88.9 million in flood damages since placed in service in 1965. The project provides recreation opportunities to an average of 146,000 visitors each year and consists of 1,672 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$413,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars

estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

DELAWARE

APPROPRIATION: Operation and Maintenance

PROJECT NAME: IWW, Delaware River to Chesapeake Bay, DE and MD

AUTHORIZATION: House Document (HD) 63-196 (1919) as modified by the River & Harbor Act of 1927, by Rivers & Harbors Committee Document 71-41 (1930) Senate Document (SD) 71-151 (1930), HD 72-201 (1935), HD 73-18 (1935), HD 73-24 (1935), SD 83-123 (1954), and Water Resources Development Act of 1990.

LOCATION AND DESCRIPTION: The project extends from Reedy Point on the Delaware River, about 41 miles downstream from Philadelphia, Pennsylvania through a sea-level canal westward to the Elk River, following the Elk River and the upper Chesapeake Bay to deep water near Pooles Island. Project consists of maintenance of 46 miles of channels, including the Delaware City Branch channel, anchorage and turning basins on Back Creek and at Chesapeake City; maintenance and repair of five high-level bridges; maintenance of entrance jetties at Reedy Point; maintenance of roads and drainage ditches along canal banks, upland disposal areas; and maintenance of stabilized channel banks through rip-rap replacement and bulkhead repair. The project is classified as a high-use, deep-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$18,596,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of the project. Funding was also used for periodic inspection of high level bridges, SR-1 Bridge repair, replacement of Delaware City Bridge, installation of an impervious barrier at Pearce Creek Confined Disposal Facility (CDF), and railing replacement on Chesapeake City Bridge.

FISCAL YEAR 2017 ALLOCATION: \$24,777,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project, maintenance dredging of critical shoals within the 46 mile the navigation channel, and periodic inspection of high level bridges and miscellaneous steel repairs on St. George Bridge. Additional funds are provided to rehab approach roadway on Chesapeake City Bridge (\$1,150,000), repair substructure on Summit Bridge (\$950,000), purchase rip rap material (\$385,000), and purchase equipment (\$670,000).

BUDGETED AMOUNT FOR FY 2018: M: \$12,705,000 O: \$2,880,000 T: \$15,585,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$15,585,000 - Funds will be used for routine operation and maintenance of the project, including dispatching, channel exams, safety requirements for five high-level highway bridges, maintenance dredging of critical shoals within the 46 mile the navigation channel, periodic inspection of high level bridges.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Commerce on the waterway averages over 12 million tons annually. The U.S. Army Corps of Engineers took ownership of the St. Georges Bridge, Delaware (SR-1), in accordance with Section 3044 of the Water Resources Development Act of 2007.

Division: North Atlantic District: Philadelphia IWW, Delaware River to Chesapeake Bay, DE & MD

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,243,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, New Castle County, DE

AUTHORIZATION: River and Harbor Act of 1899, as modified by the River and Harbor Acts of 1922, 1930, 1935, 1940, and 1960

LOCATION AND DESCRIPTION: Wilmington Harbor provides for a channel with depths of 38, 35, 21, 10, and 7 feet from the Delaware River to Newport, DE. It also includes a turning basin 2050-feet long, 640-feet wide and 38-feet deep opposite the Wilmington Marine Terminal, and jetties at the mouths of Christina and Brandywine Rivers. The project extends from the Delaware ship channel upstream, a length of about 9.9 miles, and is considered a high-use, deep-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$3,762,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance activities for the project, including critical maintenance dredging of both the 35-foot and 38-foot project channels, monthly channel examination surveys and dredge material containment facility maintenance and dike construction by hired labor.

FISCAL YEAR 2017 ALLOCATION: \$4,355,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operation and maintenance activities for the project, including critical maintenance dredging of both the 35-foot and 38-foot project channels, monthly channel examination surveys and dredge material containment facility maintenance and dike construction by hired labor.

BUDGETED AMOUNT FOR FY 2018: M: \$7,395,000 O: \$690,000 T: \$8,085,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,085,000 - Funds will be used for operation and maintenance activities for the project, including critical maintenance dredging of both the 35-foot and 38-foot project channels, monthly channel examination surveys, dredge material containment facility maintenance activities by hired labor and design effort to raise dikes at Wilmington South.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Wilmington is a high-use, deep-draft port handling 500 vessels per year with an annual import/export cargo tonnage of 7 million tons, including imports of fresh fruit, juice concentrates, and beef.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$725,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Philadelphia

Wilmington Harbor,
New Castle County, DE

DISTRICT OF COLUMBIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Potomac and Anacostia Rivers, DC and MD (Drift Removal)

AUTHORIZATION: River and Harbor Act of 1965 (P.L. 89-298).

LOCATION AND DESCRIPTION: The project is located within District of Columbia, Prince Georges County of Maryland, and Fairfax County of Virginia. Project consists of the collection and removal of drift material deemed hazardous to the safe navigation of military, commercial, and recreational marine vessels in the Potomac and Anacostia Rivers.

FISCAL YEAR 2016 ALLOCATION: \$956,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for drift collection and removal operations to support safe passage, free of obstructions, on the Potomac and Anacostia Rivers and for arc flash compliance.

FISCAL YEAR 2017 ALLOCATION: \$875,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide drift collection and removal operations to support safe passage, free of obstructions, on the Potomac and Anacostia Rivers.

BUDGETED AMOUNT FOR FY 2018: M: \$875,000 O: \$0 T: \$875,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$875,000 - Funding will provide drift collection and removal operations to support safe passage, free of obstructions, on the Potomac and Anacostia Rivers.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This work provides safe navigation, free of obstruction, for security and commercial traffic on the Potomac and Anacostia Rivers adjacent to Washington, D.C.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$31,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Washington Harbor, DC

AUTHORIZATION: Rivers and Harbors Act of 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Project is in Washington, District of Columbia. The project provides for a channel in the Potomac River from Giesboro Point to Key Bridge, a second channel from Giesboro Point to the end of Washington Channel, and a third channel from the mouth of the Anacostia River to the foot of 15th Street Southeast, with turning basins opposite the Washington Navy Yard (800-feet wide and 2,400-feet long) and at the head of the Anacostia Channel (400 feet square). Channel dimensions are 24-feet deep and 400-feet wide except upstream from Anacostia Bridge where the width is reduced to 200 feet and from Giesboro Point to a point 3,000 feet downstream of Arlington Memorial Bridge and above Easby Point where channel dimensions are 20-feet deep and 200-feet wide

FISCAL YEAR 2016 ALLOCATION: \$25,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for gate inspection and maintenance, and removal of debris adjacent to the gates, which control the flow of water into and out of the Tidal Basin.

FISCAL YEAR 2017 ALLOCATION: \$25,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for gate inspection and maintenance, and removal of debris adjacent to the gates, which control the flow of water into and out of the Tidal Basin.

BUDGETED AMOUNT FOR FY 2018: M: \$25,000 O: \$0 T: \$25,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$25,000 - Funding will provide for gate inspection and maintenance, and removal of debris adjacent to the gates, which control the flow of water into and out of the Tidal Basin.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project also provides for the operation and maintenance of the inlet and outlet gates to the Tidal Basin which flushes water in the Washington channel to improve water quality in the channel.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$24,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

FLORIDA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), FL

AUTHORIZATION: River and Harbor Acts of 1912, 1927, 1930, 1935, 1937, 1938, 1948, 1950, 1954, 1960 (Section 107), 1966 and 1970 and the Water Resources Development Act of 1976.

LOCATION AND DESCRIPTION: The portion of the AIWW lies within the Jacksonville District boundary, from the Florida/Georgia border to the St. Johns River in Jacksonville. The AIWW is an inland, low use navigation project. The AIWW project authorizes a channel 90 feet wide in land cuts and narrow streams and 150 feet wide in open waters by 12 feet deep. The length of the project within SAJ boundaries is approximately 22 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$2,200,000 O: \$24,000 T: \$2,224,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,224,000 – Funds will be used for routine maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The portion of the AIWW is used to deliver fuel oil from the Navy fuel depot in Jacksonville to the Kings Bay Naval Base in Kings Bay GA.

1/ Estimated Unobligated Carry-In Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canaveral Harbor, FL

AUTHORIZATION: River and Harbor Acts of 1945 (Public Law (PL) 79-14) and 1962 (PL 87-874), Section 601(a) of Water Resources Development Act (WRDA) of 1986 (PL 99-662), Section 101(7) of WRDA of 1992 (PL 102-580), Section 313 of WRDA of 1996 (PL 104-303), Section 3047 of WRDA of 2007 (PL 110-114), Section 7002(1)(5) of Water Resources Reform and Development Act of 2014 (PL 113-121)

LOCATION AND DESCRIPTION: Canaveral Harbor, a high use, deep draft navigation project, is located on the east coast of Florida in Brevard County, on the shore of Cape Canaveral in an area known as the Canaveral Bight. WRRDA 2014 authorized new Canaveral Harbor Improvements including widening the main ship channel from the harbor entrance inland to the West Turning Basin and West Access Channel, from its current authorized width of 400 feet to 500 feet; deepening the Outer Reach, Cut 1A from -44 feet to -46 feet for a length of 11,000 feet; deepening the Outer Reach, Cut1B from -44 feet to -46 feet depth for a length of 5,500 feet; deepening the Outer Reach, Cut 1 from -44 feet to -46 feet for the 5,300 feet long portion of Cut 1 that is seaward of buoys 7/8 (Station 0+00 to Station 53+00); deepening the remainder of Cut 1 from buoys 7/8 to the apex of the channel turn, a length of 7,200 feet from -44 feet to -46 feet; a new 203 Turn Widener -46 feet deep X 23.1 acres (irregular shaped area) bounded to the north and northeast by the Civil Turn Widener and Outer Reach, Cut 1; deepening the U.S. Navy Turn Widener from -44 feet to -46 feet X 7.7 acres (triangular shaped area) bounded by outer and middle reaches to the north and northeast and the Civil Turn Widener to the southwest; deepening the Civil Turn Widener from -41 feet to -46 feet X 15.6 acres (irregular shaped area) bounded to the north and northeast by the middle reach and the U.S. Navy Turn Widener; deepening the Middle Reach from -44 feet to -46 feet for a length of 5,658 feet; deepening the Inner Reach, Cut 2 and Cut 3 from -40 feet to -44 feet for a length of 3,344 feet; deepening and expanding the Middle Turning Basin to encompass 68.9 acres to a project depth of -43 feet and a turning circle diameter of 1,422 feet; deepening the West Access Channel (east of Station 260+00) from -39 feet to -43 feet for a length of 1,840 feet; and expanding the West Turning Basin and West Access Channel (west of Station 260+00) and expanding the turning circle diameter from 1,400 feet to 1,725 feet X 141 acres at a depth of -35 feet. In addition, the original authorization included a barge lock 90 feet wide and 600 feet long west of the harbor dike and two entrance jetties to the 12-foot contour. The total length of project is approximately 11.5 miles.

FISCAL YEAR 2016 ALLOCATION: \$2,412,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation. Non-routine activities include an energy audit.

FISCAL YEAR 2017 ALLOCATION: \$9,872,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation, the North Reach Brevard County shore protection project, refurbishing the protective rip rap on the northwest island, replacing the lock electrical service, and initiating design for sector gate repairs.

BUDGETED AMOUNT FOR FY 2018: M: \$170,000 O: \$1,300,000 T: \$1,470,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,470,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

Division: South Atlantic

District: Jacksonville

Canaveral Harbor, FL

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 3 million tons of cargo passes through Canaveral Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$8,000. There was an additional \$5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Central & Southern Florida (C&SF), FL

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1958, 1960, 1962, 1965, and 1968; Water Resources Development Act (WRDA) of 1992, 1996, and 2000

LOCATION AND DESCRIPTION: The project, covering an area of approximately 16,000 square miles, lies within the southeasterly 18 counties of Florida, but also includes the upper St. Johns River Basin located in the northeastern section of the project; the Kissimmee River Basin in the central section; the Lake Okeechobee-Everglades in the central and southwestern section; East Coast-Everglades in the southeastern section. The project provides for flood relief and water conservation and provides principally for an East Coast Protective Levee extending from Homestead area north to eastern shore of Lake Okeechobee near St. Lucie Canal; three conservation areas for water impoundment in Everglades area west of East Coast Protective Levee, with control structures to effect transfer of water as necessary; local protection works along lower east coast; encirclement of Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach canals; enlargement of existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shores of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River Basin, with suitable control structures to prevent over drainage; an interrelated system of canals, levees, pumping stations and structures in southwest Dade County to control water levels; and facilities for regulation of floods in the upper St. Johns River Basin.

FISCAL YEAR 2016 ALLOCATION: \$19,656,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance activities. Non-Routine work included an energy audit.

FISCAL YEAR 2017 ALLOCATION: \$14,889,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance activities. Non-routine activities include boat ramp improvements, and sewage/septic maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$15,547,000 O: \$9,311,000 T: \$24,858,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$900,000 - Perform routine operations in support of navigation.

FRM: \$21,986,000 - Perform routine operations and maintenance in support of flood risk management. Non-routine flood risk management activities involves repair or replacement of heavily corroded culverts and flap gates at C-43 and C-44 (\$2,524,000). There is a total of \$50,000 for sustainability work on this project to install cool roof coating to reduce energy consumption.

RC: \$797,000 - Perform routine operations and maintenance in support of recreation. Non-routine recreation activities includes closure of WP Franklin swim beach (\$50,000). There is a total of \$3000 for sustainability work on the project to install hybrid solar water heating system.

H: N/A

EN: \$1,175,000 - Perform routine operations and maintenance in support of environmental stewardship.

WS: N/A

Division: South Atlantic

District: Jacksonville

Central & Southern Florida, FL

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$187,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Escambia and Conecuh Rivers, FL

AUTHORIZATION: River and Harbor Acts of 1880, 1907 and 1958

LOCATION AND DESCRIPTION: The Escambia-Conecuh Rivers are names applied to a single stream, a portion of which is located in Alabama known as the Conecuh River and a portion in Florida known as the Escambia River. This high use, shallow draft inland navigation project consists of Bay and River channels that are 100 foot by 10 foot.

FISCAL YEAR 2016 ALLOCATION: \$1,018,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$55,000 T: \$55,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$55,000 - Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Gulf Power Crist Plant is critical to the regional power grid. Both Gulf Power and Ascend Performance Materials contend that their facilities can not survive without this project. The local railway systems and highway systems could not handle the volume (approximately 3.5 million tons) of traffic that would be required to furnish the coal, limestone, and other raw materials required by these companies and currently supplied by barges. Over 2.6 million tons of commodities were transported through this project over a five year average.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$123,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Intracoastal Waterway, Caloosahatchee River to Anclote River, FL

AUTHORIZATION: House Document 371,76,1, Dated 2 March 1945

LOCATION AND DESCRIPTION: Project consists of a channel 9 feet deep by 100 feet wide from Caloosahatchee River to Anclote River; deepening existing 100-foot-wide entrance channel at Casey's Pass (Venice Inlet) to 9 feet; maintenance of bulkheads, revetments, and two jetties built at Casey's Pass under a previous project; and improvement and maintenance of the existing Sunshine Skyway borrow channel to 9 feet deep by 100 feet wide. Waterway includes existing improved channels in Pine Island Sound from Punta Rossa to Charlotte Harbor, in the entrance to Roberts Bay at Casey's Pass, in Little Sarasota Bay and Sarasota Bay from Nokomis to Tampa Bay, and in Boca Ciega Bay from Tampa Bay to Clearwater Harbor; a channel 6 feet deep by 80 feet wide along the southeastern side of Boca Ciega Bay and across Cats Point Shoal. Length of project waterway is approximately 160 miles. The project traverses the west coast of Florida.

FISCAL YEAR 2016 ALLOCATION: \$950,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to perform maintenance dredging of the project.

FISCAL YEAR 2017 ALLOCATION: \$4,000,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used restore the channel to pre-Hurricane Hermine conditions.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$102,000 T: \$102,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$102,000 - Funds will be used for geospatial land data migration mapping and conduct physical monitoring of the 2nd periodic renourishment of Venice Beach, Sarasota County, FL.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Section 111 of the Rivers and Harbors Act of 1968 analysis prepared for the 1984 Feasibility Report for Venice Beach determined that the Casey's Pass navigation project directly attributed to the erosion at the shores of Venice Beach, Sarasota County, FL. Casey's Pass navigation project is a feature of the Intracoastal Waterway, Caloosahatchee River to Anclote River, FL.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$28,000. There was an additional \$750,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: South Atlantic

District: Jacksonville

Intracoastal Waterway,
Caloosahatchee River to Anclote River, FL

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Intracoastal Waterway (IWW) - Jacksonville to Miami, FL

AUTHORIZATION: River and Harbor Acts of 1927 and 1945 (Public Law 79-14)

LOCATION AND DESCRIPTION: The entire length of the IWW lies within the Jacksonville District boundary. The inland, low use navigation project starts at the St. Johns River in Duval County at the northern most point and runs the entire length of the state where it ends in Miami Dade County. The IWW project authorizes a channel 12 feet deep by 125 feet wide from Jacksonville, FL south to Fort Pierce, Florida and 10 feet deep by 125 feet wide from Ft. Pierce, Florida south to Miami, Florida. The length of the project is approximately 349 miles.

FISCAL YEAR 2016 ALLOCATION: \$3,761,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$2,850,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to develop plans and specifications for the Ponce Reach of the IWW and the Broward County Reach 1 and for maintenance dredging of Broward County Reach 1.

BUDGETED AMOUNT FOR FY 2018: M: \$3,300,000 O: \$260,000 T: \$3,560,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,560,000 – Funds will be used for routine maintenance in support of navigation. Non-routine activities include geospatial land data migration mapping (\$260,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Agreement with the Florida Inland Navigation District (FIND) (non-Federal sponsor) to contribute funds for the operation and maintenance (O&M) of the IWW was executed on September 3, 1997. Since that date, FIND has provided over \$50,000,000 for the O&M of the waterway. Over 14,000 tons of cargo passes through the IWW on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jacksonville Harbor, FL

AUTHORIZATION: River and Harbors Act of 1965 (Public Law (PL) 89-298), Section 101(a)(17) of the Water Resources Development Act of 1999 (PL 106-53), Section 129 of the Energy and Water Development Appropriation Act of 2006 (PL 109-103), and Section 7002(1)(8) of the Water Resources Reform and Development Act (WRRDA) of 2014 (PL 113-121)

LOCATION AND DESCRIPTION: The existing high use, deep draft navigation project provides a channel 40 feet deep from the mouth of the St. Johns River to approximately river mile 20, via Dames Point-Fulton Cutoff, thence 34 feet to Commodore Point, and thence 30 feet deep to the Florida East Coast Railway Bridge at Dames Point Fulton Channel. The project also includes maintenance of the existing 42- and 40-foot depth entrance channel; maintenance of jetties at channel entrance; construction and maintenance of training walls and revetments; a navigation and floodway channel 26 feet by 200 feet along the south side of Commodore Point; and approach and mooring basin 20 feet deep, 1,300 feet long at 20-foot depth contour and 600 feet long at pier head line near Naval Reserve Armory in South Jacksonville, a depth of 24 feet between that depth contour and the pier head line from Hogan Creek to the foot of Laura Street; and a depth of 28 feet to within 60 feet long at pier head line between the foot of Laura Street and St. Elmo W. Acosta (formerly upper state) Bridge. Length of project is approximately 26.8 miles.

FISCAL YEAR 2016 ALLOCATION: \$6,072,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$9,780,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation and additional dredging of critical shoals.

BUDGETED AMOUNT FOR FY 2018: M: \$7,440,000 O: \$250,000 T: \$7,690,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$7,690,000 - Perform routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Located in the Southeastern U.S., Jacksonville Harbor is situated at the crossroads of the nation's rail and highway networks, supplying goods throughout the southeast and eastern coasts. Three railroads - CSX, Norfolk Southern and Florida East Coast Railway - operate in Northeast Florida, and three interstates (I-10, I-75 and I-95) provide fast access to major markets throughout the United States. The port is developing their direct loading capacity to move cargo even faster from the ship to rail at the terminal. While historically, Jacksonville Harbor's primary trade routes were to the Caribbean and Puerto Rico, now with emerging global trade, new vessels are providing direct services to Europe and Asia. Jaxport is one of the leading auto exporters in the country, shipping more

Division: South Atlantic

District: Jacksonville

Jacksonville Harbor, FL

than 600,000 cars and trucks annually. It's a strategic military cargo port, home to the 832nd Transportation Battalion, and both the Marines and Navy have large presences here, relying heavily upon this channel for operational requirements. The port was used to support contingency deployments to the CENTCOM AOR and is a vital part of CONplans to meet other combatant commander requirements.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,817,000. There was an additional \$346,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jim Woodruff Lock and Dam, FL, AL & GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The multiple-purpose project is located at mile 107.3 on the Apalachicola River at the confluence of the Chattahoochee and Flint Rivers (ACF), about 45 miles northwest of Tallahassee, Florida. The project includes a dam, powerhouse, navigation lock, fixed and gated spillways, 39 recreational areas and a 37,500-acre reservoir (Lake Seminole) with 532 miles of shoreline.

FISCAL YEAR 2016 ALLOCATION: \$8,673,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of the multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$6,529,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of the multi-purpose project.

BUDGETED AMOUNT FOR FY 2018: M: \$3,789,000 O: \$3,085,000 T: \$6,874,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$350,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: \$1,577,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$16,000 for sustainability work on this project to install low consumption valves in restroom facilities.

H: \$3,050,000 – Funds will be used for routine operations and maintenance in support of hydropower.

EN: \$597,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,300,000 of routine operation and maintenance of project features used jointly by multiple business lines: HYD - 35% and NAV - 65%. The project averages over 1.5 million visits to the recreational facilities annually. The power plant has a capacity of 43,350 kilowatts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$7,000. There was an additional \$20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manatee Harbor, FL

AUTHORIZATION: Section 202(a) of the Water Resources Development Act (WRDA) of 1986 (Public Law (PL) 99-662), Section 102(j) of WRDA of 1990 (PL 101-640), Section 156 of the Energy and Water Development Appropriations Act of 2004 (PL 108-137)

LOCATION AND DESCRIPTION: The high use, deep draft project is located on the Gulf coast of Florida, just south of Tampa. The project provides for Federal maintenance of an existing 40-foot deep by 400-foot wide entrance channel and turning basin. The entrance channel extends approximately 3 miles in length from the turning basin to its intersection with the Tampa Harbor Main channel.

FISCAL YEAR 2016 ALLOCATION: \$446,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$650,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations and maintenance in support of navigation and dewatering of the disposal area.

BUDGETED AMOUNT FOR FY 2018: M: \$900,000 O: \$0 T: \$900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$900,000 – Funds will be used for routine maintenance including offloading material from the Dredge Material Maintenance Area (DMMA) in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over three million tons of cargo passes through Manatee Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$15,000. There was an additional \$686,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Miami Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960 (Public Law 86-645); Section 1001(17) of the Water Resources Development Act of 2007 (Public Law 110-114)

LOCATION AND DESCRIPTION: The high use, deep draft project is located in Miami-Dade County on the lower east coast of Florida. The authorized project includes Cut-1 and Cut-2 depth of 52 feet plus one foot allowable overdepth, including a widener at the outer portion of Cut-1 of 800 feet in width; Cut-3 depth of 50 feet plus one foot allowable overdepth, including a turn widener at the intersection of Cut-3 and the Fisher Island Turning Basin; Fisher Island Turning Basin depth of 50 feet plus one foot allowable overdepth; Fisherman's Channel depth of 50 feet plus one foot allowable overdepth, channel width of 440 feet; Lummus Island Turning Basin depth of 50 feet plus one foot allowable overdepth; Cut 4 (Main Channel) and Main Turning Basin depth of 36 feet plus one foot allowable overdepth; and Dodge Island Channel depth of 34 feet plus one foot allowable overdepth.

FISCAL YEAR 2016 ALLOCATION: \$1,595,000

DESCRIPTIONS OF WORK FOR FY 2016: FY2016 funds were used to perform routine operations in support of navigation. Non-routine activities include a rebate to shippers in lieu of berth dredging.

FISCAL YEAR 2017 ALLOCATION: \$1,428,000

DESCRIPTIONS OF WORK FOR FY 2017: FY2017 funds are being used for routine operations in support of navigation and rebates of Harbor Maintenance Trust Fund payments to shippers.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 7 million tons of cargo passes through Miami Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,499,000 of which \$1,198,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Okeechobee Waterway (OWW), FL

AUTHORIZATION: River and Harbor Acts of 1945 and 1960 (Public Laws 79-14 and 86-645)

LOCATION AND DESCRIPTION: The high use, shallow draft inland navigation project provides a 155-mile long channel across the state from Fort Myers to Stuart and its maintained depth ranges from 8 feet to 10 feet. The waterway runs through Lake Okeechobee and consists of the Caloosahatchee River on the west side of the lake and the St. Lucie Canal on the east side. The project includes navigation locks at Ortona, Moore Haven, and St. Lucie. Additional locks at W. P. Franklin and Port Mayaca, authorized under the Central and Southern Florida project, are also located within the waterway.

FISCAL YEAR 2016 ALLOCATION: \$3,318,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation, environmental stewardship and recreation. Non-routine maintenance activities include timber guide wall repair and mooring dolphin installation.

FISCAL YEAR 2017 ALLOCATION: \$2,790,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation, environmental stewardship and recreation. Non-routine operation activities include sustainability work for attic insulation and sewage/septic water efficiency upgrades. Non-routine work in support of environmental stewardship includes boundary survey and rectification.

BUDGETED AMOUNT FOR FY 2018: M: \$152,000 O: \$2,540,000 T: \$2,692,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,110,000 – Funds will be used for routine operations and maintenance in support of navigation. There is a total of \$40,000 for sustainability work on this project for building envelope improvements.

FRM: \$15,000 – Funds will be used for routine operations and maintenance in support of flood risk management.

H: N/A

RC: \$754,000 – Funds will be used for routine operations and maintenance activities in support of recreation. There is a total of \$37,000 for sustainability work on this project to replace water fixtures and water line at campgrounds.

EN: \$813,000 – Funds will be used for routine operations and maintenance activities in support of environmental stewardship.

WS: N/A

OTHER INFORMATION: There are currently six special status species with Fish and Wildlife Service Recovery Plans inhabiting project lands and waters. These include manatee, Everglades snail kite, Okeechobee gourd, Eastern Indigo snake, crested caracara, and the wood stork. The waters and lands of the OWW project are infested with invasive species. Target species for removal include Brazilian pepper, Australian pine, air potato, Melaleuca, water hyacinth, water lettuce, alligator weed, cogon grass, sailfin catfish, fire ant, wild boar, and giant apple snail. The OWW and Central and South Florida projects contain 402 miles of shoreline and 654 miles of boundary. There are currently approximately 400 active permits. OWW has an annual visitation estimated at approximately 6 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$137,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Palm Beach Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960 (Public Law (PL) 86-645), Section 202(a) of Water Resources Development Act of 1986 (PL 99-662), Section 7002(1)(7) of Water Resources Reform and Development Act of 2014 (PL 113-121)

LOCATION AND DESCRIPTION: The high use, deep draft navigation project is located in Palm Beach County on the lower east coast of Florida. The existing Palm Beach Harbor project provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. The length of project is about 1.6 miles. The harbor also contains advanced maintenance features which includes three settling basins adjacent to the entrance channel 35 feet deep, approximately 550 feet by 500 feet and additional 2 feet of advanced maintenance from STA 30+00 to STA 47+00 in the entrance channel.

FISCAL YEAR 2016 ALLOCATION: \$5,420,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$3,540,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation and dredging to advance maintenance depth of the Settlement Basin.

BUDGETED AMOUNT FOR FY 2018: M: \$3,900,000 O: \$100,000 T: \$4,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,000,000 - Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project provides access for fuel oil to South Florida power plants. Over 1.8 million tons of cargo navigates the Palm Beach Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Panama City Harbor, FL

AUTHORIZATION: River and Harbor Act of 1948 and previous acts. Rehabilitation of the jetties was authorized by the Chief of Engineers in 1971.

LOCATION AND DESCRIPTION: Panama City Harbor is located on the northwest coast of Florida. The high use, deep draft navigation project consists of four channels: an approach channel 450 feet by 38 feet, an entrance channel 300 feet by 36 feet, the Watson Bayou Channel 100 feet by 10 feet and the Grand Lagoon Channel 100 feet by 8 feet.

FISCAL YEAR 2016 ALLOCATION: \$1,637,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR AND JUSTIFICATIONS 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$1,860,000 O: \$30,000 T: \$1,890,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,890,000 – Funds will be used for routine operations and maintenance.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 50% of the tonnage entering this port requires the full project depth. The tonnage through this port has expanded dramatically since the project depth was increased in 2004.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$191,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pensacola Harbor, FL.

AUTHORIZATION: Rivers and Harbors Acts 1902, 1935, 1937 and 1962

LOCATION AND DESCRIPTION: Pensacola Harbor is a high use deep draft harbor located on Pensacola Bay in northwest Florida. The project consists of a 35 x 500 feet main entrance channel, and 33 x 300-500 feet bay approach, and inner harbor channels. The Bayou Chico project is located within Pensacola Bay in Pensacola, Florida and provides for an entrance channel 15 x 100 feet, thence to a 14 x 75 foot channel terminating into a turning basin 14 x 500 and 500 feet long. The port has seen an increase in usage by cement and aggregate ships.

FISCAL YEAR 2016 ALLOCATION: \$160,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$1,915,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$34,000 T: \$34,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$34,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A.

RC: N/A.

H: N/A.

EN: N/A.

WS: N/A.

OTHER INFORMATION: This is a high use, deep draft project that typically requires little maintenance to provide project depths. Maintenance cost per ton of cargo shipped is very low making this project a good value for the return on investment. Use of this port by high technology industries is increasing. Deep water pipe laying vessels, General Electric wind and off shore exploration vessels are major uses of the port. The project also serves as the entrance channel to the Pensacola Naval Air Station. Over 800,000 tons of commodities are transported through this project annual.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$64,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Port Everglades Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960

LOCATION AND DESCRIPTION: The high use, deep draft navigation project is located in Broward County on the lower east coast of Florida. The outer part of the entrance channel is 45 feet deep by 500 feet wide and is 5,100 feet long including a 1,000-foot transition section inside the two jetties. The inner part of the entrance channel is 42 feet deep by 450 feet wide for a length of 4,800 feet through the main turning basin. The main turning basin is 42 feet deep over a rectangular area 1,700 feet by 2,300 feet. The 31-foot deep north turning basin extends 1,100 feet to the north, tapering from 800 to 500 feet at the northern extreme. The south turning basin extends approximately 1,100 feet to the south by 1,260 feet wide, with authorized depths of 31, 36, and 37 feet. The 42-foot deep by 400-foot wide south port channel extends 9,356 feet south from the entrance channel. The turning notch is 42 feet deep by 750 feet by 1,000 feet, adjoining the south port channel from the west approximately 6,500 feet south of the entrance channel. Length of project is approximately 3.5 miles.

FISCAL YEAR 2016 ALLOCATION: \$447,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$420,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation and reimbursement to shippers for maintenance of berthing areas.

BUDGETED AMOUNT FOR FY 2018: M: \$320,000 O: \$100,000 T: \$420,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$420,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 20 million tons of cargo navigates Port Everglades Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth, FL

AUTHORIZATION: River and Harbor Act of 1899, as amended

LOCATION AND DESCRIPTION: This project provides annual mission essential prevention, control and removal of nuisance aquatic vegetation impacting, obstructing or threatening navigation in the Federal navigation channels of the St. Johns, Kissimmee, Withlatchoochee, Ocklawaha and Crystal Rivers in addition to the Okeechobee Waterway projects. This includes approximately 600 miles of channel with 650,000 surface acres. Operational priority is given to controlling floating nuisance vegetation in order to keep the principal navigable waterways and locks open for navigation.

FISCAL YEAR 2016 ALLOCATION: \$3,168,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$3,880,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine maintenance in support of navigation and removal of aquatic vegetation from tributaries of the St. Johns River and Lake Okeechobee Waterway.

BUDGETED AMOUNT FOR FY 2018: M: \$3,259,000 O: \$0 T: \$3,259,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,259,000 – Funds will be used for routine maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$53,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tampa Harbor, FL

AUTHORIZATION: House Document 91-401, 91st Congress; Energy and Water Act of 2003, Report No. 108-357

LOCATION AND DESCRIPTION: The high use, deep draft navigation project consists of a channel from the Gulf of Mexico to Port Tampa and downtown Tampa. Project features include the entrance channel from the Gulf of Mexico to Hillsborough Bay. At Hillsborough Bay, the channel splits into two legs, with one continuing west to Port Tampa and the other east to Gadsden Point. The west channel continues to Port Tampa and ends in a turning basin. The west channel to Gadsden Point includes the Alafia River, Port Sutton, East Bay, and Seddon Channels. The project depth varies from 45 feet in the entrance channel at the Egmont Bar Channel to 30 feet in the Alafia River. Length of project is about 67 miles including 3.6 miles in the Alafia River.

FISCAL YEAR 2016 ALLOCATION: \$9,405,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$8,815,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation and geospatial land data migration activities.

BUDGETED AMOUNT FOR FY 2018: M: \$7,940,000 O: \$350,000 T: \$8,290,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,290,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 32 million tons of cargo enters Tampa Harbor on an annual basis. The Port of Tampa has more cargo tonnage than all other Florida ports combined.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$16,000. There was an additional \$523,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Water/Environmental Certification, FL

AUTHORIZATION: Authorities inherent in project-specific authorizations for operation and maintenance for navigation purposes.

LOCATION AND DESCRIPTION: The water quality certification is for deep draft and shallow draft navigation projects. No dredging activities can be performed without necessary environmental and water certifications. This national program is to perform critical, routine activities needed to acquire or renew water and environmental certifications for projects that are not funded separately. Funding is for critical activities to acquire water quality, environmental certification, and coordination with other Federal, State and local agencies for cyclical dredging at projects that do not receive annual funding to ensure required environmental documentation. Projects are required to comply with local, state, and federal environmental laws and regulations. These activities provide the necessary effort to ensure compliance, including endangered species compliance.

FISCAL YEAR 2016 ALLOCATION: \$40,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for miscellaneous consultation and environmental data calls on small projects throughout Florida.

FISCAL YEAR 2017 ALLOCATION: \$165,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 are being used for miscellaneous consultation and environmental data calls on small projects throughout Florida.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$170,000 T: \$170,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$170,000 - The Water/Environmental Certification activities encompass coordination with Federal and State natural resources agencies to meet environmental requirements associated with dredging for unbudgeted projects along the Gulf Coast of Florida.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The primary purpose of these activities is coordination between the Corps and other Federal and state agencies to meet environmental requirements associated with dredging.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

GEORGIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Allatoona Lake, GA

AUTHORIZATION: Flood Control Acts of 1941 and 1944, Section 4.

LOCATION AND DESCRIPTION: This 37,000 acre multi-purpose flood risk management project is located on the Etowah River, a segment of the Alabama-Coosa-Tallapoosa (ACT) Rivers System, 48 miles above Rome, Georgia. The project includes a dam, hydroelectric powerhouse, gated spillway, a reservoir, 23 Corps of Engineers recreation areas and 54 non-Federal recreation areas.

FISCAL YEAR 2016 ALLOCATION: \$7,582,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of the multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$8,032,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the multi-purpose project. Non-routine work includes critical infrastructure protection assessment and cultural resources site monitoring and protection.

BUDGETED AMOUNT FOR FY 2018: M: \$4,907,000 O: \$5,556,500 T: \$10,463,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$3,700,000 – Funds will be used for routine activities in support of recreation.

H: \$4,650,000 – Funds will be used for routine operation and maintenance in support of hydropower. Non-routine work includes turbine design (\$2,000,000) and intake emergency closure gate refurbishment design (\$150,000).

EN: \$886,000 – Funds will be used for routine activities to support environmental stewardship. Non-routine work includes inventory and data recovery at a threatened cultural resources site (\$114,000).

WS: \$94,500 – Funds will be used for routine operations in support of water supply and technical support for ongoing litigation and water allocation issues.

OTHER INFORMATION: The budgeted amount for the project includes \$1,133,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 78% and FRM – 22%. This project is located within the ACT Rivers System and 33 miles north of Atlanta, Georgia. The lake supports over 5 million visitors per year with over 90 million visitor-hours of recreation annually and is an important source of storage for the Atlanta Metropolitan Area's water supply. The project provides more than 51 million gallons per day for water supply. The project typically has a hydropower capacity of 82,000 kilowatts. Due to the recent fire in the powerhouse, the capacity is currently at 0 kilowatts. The powerhouse is scheduled to return to service as follows: Unit 4- May 2017, Unit 1- February 2018 and Unit 2- May 2018.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$316,000. There was an additional \$8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Atlantic

District: Mobile

Allatoona Lake, GA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Apalachicola, Chattahoochee and Flint Rivers (ACF), GA, AL and FL

AUTHORIZATION: River and Harbor Act of 1945, Section 2; modified by Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The project is located in southeast Alabama, southwest Georgia and northwest Florida. The project is a low-use inland navigation waterway and includes a 9 foot by 100 foot navigation channel in the Apalachicola River, Florida, a 9 foot by 100 foot channel in the Flint River, Georgia to the City of Bainbridge and a 9 foot by 100 foot navigation channel on the Chattahoochee River in Alabama and Georgia to Columbus, Georgia. The project includes George W. Andrews Lock on the Chattahoochee River in Early County, Georgia. George W. Andrews Lock is in caretaker status. Jim Woodruff Lock and Dam, Walter F. George Lock and Dam, West Point Dam and Lock, and Buford Dam and Lake Sidney Lanier projects on the ACF system are each funded separately.

FISCAL YEAR 2016 ALLOCATION: \$1,510,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation, recreation, and environmental stewardship. Non-routine activities included water control manual updates.

FISCAL YEAR 2017 ALLOCATION: \$1,026,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation, recreation, and environmental stewardship. Non-routine activities include master plan updates.

BUDGETED AMOUNT FOR FY 2018: M: \$239,000 O: \$1,606,000 T: \$1,845,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,560,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: \$138,000 – Funds will be used for routine operations and maintenance in support of recreation.

H: N/A

EN: \$147,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: N/A

OTHER INFORMATION: There are several threatened and endangered species in the lower part of the system.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$319,000. There was an additional \$11,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), GA

AUTHORIZATION: Rivers and Harbors Act of 1880; House Document 295, 53rd Congress., 3rd session; House Document 41, 52nd Congress, 1st session; House Document 450, 58th Congress, 2nd session; House Document 1236, 60th Congress, 2nd session; Senate Document 6, 81st Congress, 1st session; House Document 581, 63rd Congress, 2nd session; House Document 1391, 62nd Congress, 3rd session; Senate Document 178, 68th Congress, 2nd session; Senate Document 43, 71st Congress, 2nd session; Senate Committee Print, 74th Congress., 1st session; Rivers and Harbors Committee, Document 6, 75th Congress, 3rd session; House Document 618, 75th Congress, 3rd session; House Document 114, 77th Congress, 1st session; Section 107, P.L. 86-645.

LOCATION AND DESCRIPTION: The Savannah District's portion of the AIWW begins in the County of Beaufort, South Carolina at Port Royal Sound (mile 552) and continues south through the Counties of Jasper, South Carolina; Chatham, Bryan, Liberty, McIntosh, Glynn, and Camden Counties, Georgia. The end of the Savannah District's portion is at mile 713 in Cumberland Sound, GA. The low use, inland waterway crosses two deep draft harbors: Savannah Harbor and Brunswick Harbor. The project has an authorized depth of 12 feet deep mean lower low water (MLLW) and an authorized width of 90 feet inland cut and 150 feet in natural waterways.

FISCAL YEAR 2016 ALLOCATION: \$174,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$181,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$181,000 T: \$181,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$181,000 – Funds will be used for only critical operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: In FY 2014, 103,000 tons of goods were transported on the project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$43,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brunswick Harbor, GA

AUTHORIZATION: Water Resources Development Act of 1999, P. L. 108-07

LOCATION AND DESCRIPTION: Brunswick Harbor is located in the lower part of southeastern Georgia. It is a medium use deep-draft port with project dimensions of 38 feet deep by 500 feet wide in the bar channel and 36 feet deep by 400 feet wide in the inner channels through St. Simon's Sound, Brunswick River and East River. The inner harbor is maintained through use of Andrews Island, the sole upland disposal area. The inner harbor has two turning basins, one in East River and the other in Turtle River.

FISCAL YEAR 2016 ALLOCATION: \$10,881,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$11,267,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine maintenance in support of navigation and dredging of the entrance channel.

BUDGETED AMOUNT FOR FY 2018: M: \$3,897,000 O: \$631,000 T: \$4,528,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,528,000 - Funding will be used for routine operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This funding level allows for removal of approximately 30 percent of sediment in the bar channel. Primary commodities transported through Brunswick Harbor are coal, petroleum and its products, chemicals and related products, crude materials, manufactured goods and equipment, and farm products, totaling about 3.3 million tons in FY 2014. The port is the second largest roll on roll off port for import and export of vehicles in the United States. Brunswick Harbor houses a United States Coast Guard Station. Per United States Department of Commerce/Bureau of the Census, the 2013 value of waterborne commerce through Brunswick was \$5.7 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$237,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buford Dam and Lake Sidney Lanier, GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The multiple-purpose project is located approximately 40 miles north of Atlanta, Georgia on the Chattahoochee River in the Counties of Gwinnett, Hall, Dawson, Lumpkin and Forsyth. The project includes a hydroelectric powerhouse, a 39,000 acre flood risk management reservoir with 692 miles of shoreline, and 83 recreation facilities.

FISCAL YEAR 2016 ALLOCATION: \$11,764,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance of this multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$9,823,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance of this multi-purpose project. Non-routine work includes Geospatial Land Data Mapping.

BUDGETED AMOUNT FOR FY 2018: M: \$ 3,399,000 O: \$7,765,500 T: \$11,164,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$4,559,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$20,000 for sustainability work on this project to repair of water line pipes.

H: \$2,670,000 – Funds will be used for routine operations and maintenance in support of hydropower. Non-routine activities include design of the emergency intake closure gate (\$100,000).

EN: \$2,171,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship. Non-routine activities include work to complete the Master Plan (\$500,000).

WS: \$80,500 – Funds will be used for routine operations in support of water supply and provide technical support for litigation and water allocation issues.

OTHER INFORMATION: The budgeted amount for the project includes \$1,684,000 for routine operation and maintenance of project features used by multiple business lines: HYD - 75%, NAV – 4%, and FRM - 21%. Joint cost non-routine work involves Geospatial Land Data Migration Mapping (\$404,000) and installation of manholes in saddle dike 3 to monitor suspected leakage (\$200,000). The project is a three-time winner of the Corps “Project of the Year Award.” This project is currently the main source of drinking water for the Atlanta Metropolitan area. The project has over 6.9 million visits and over \$26.6 million in damages prevented in per year. The hydropower capacity is 127,000 kilowatts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$263,000. There was an additional \$43,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carters Dam and Lake, GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: This multiple-purpose 8,577 acre project is located on the Coosawattee River, a portion of the Alabama-Coosa-Tallapoosa (ACT) River System, 26.8 miles above the mouth of the river, near Chatsworth, Georgia. The project includes a dam, hydroelectric powerhouse (master plant that also controls Allatoona and Buford), a flood risk management reservoir and 10 recreational areas.

FISCAL YEAR 2016 ALLOCATION: \$7,233,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of this multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$7,774,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of this multi-purpose project. Non-routine work involves critical infrastructure protection assessment, forest management, and re-regulation dam saw cutting.

BUDGETED AMOUNT FOR FY 2018: M: \$5,381,000 O: \$3,206,000 T: \$8,587,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$341,000 – Funds will be used to repair the sluice tunnel road.

RC: \$1,578,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$40,000 for sustainability work on this project to install cool roofs on five gatehouses, six comfort stations, and shower houses.

H: \$3,970,000 – Funds will be used for routine operations and maintenance in support of hydropower activities.

EN: \$351,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: \$18,000 – Funds will be used for routine operations in support of water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$2,329,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 65% and FRM - 35%. Non-routine joint work includes performing saw cutting at the re-regulation dam to alleviate binding of the spillway gates. The Carters project includes a main dam and a reregulation dam. Two of the four generators can be reversed and utilized as pumpback units to pump water back to the main reservoir during non-peak generation hours for reuse during peaking hours. The total hydropower capacity is more than 479,000 kilowatts. The project had over 500,000 visits in FY 2012 and supplies approximately 2 million gallons/day in water supply.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$428,000. There was an additional \$69,000 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hartwell Lake, GA and SC

AUTHORIZATION: Flood Control Acts of 1950 and 1958; Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: The project is located midway between Atlanta, Georgia and Charlotte, North Carolina. The dam is a concrete gravity type; 1,900 feet long and 225 feet high with a 568-foot controlled spillway. The project provides 2,843,000 acre feet of storage with 1,416,000 acre feet allocated to hydropower, 293,000 acre feet to flood control and 1,134,000 acre feet to inactive storage. The project also boasts 962 miles of shoreline, 55,950 acres of water, and 20,933 acres of land.

FISCAL YEAR 2016 ALLOCATION: \$11,063,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operations and maintenance for this multipurpose project with power.

FISCAL YEAR 2017 ALLOCATION: \$11,343,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations and maintenance. Non-routine activities include replacing the waterline valves at seven campgrounds, completing the water reallocation study, and updating the Master Plan and Shoreline Management Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$3,415,000 O: \$ 9,337,000 T: \$12,752,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,280,000 – Funds will be used for routine operations and maintenance for flood risk management. Non-routine activities include repairing the weir and drain system along the earthen embankment (\$250,000), investigating active erosion downstream of Clemson Saddle Dike (\$100,000), and repair South Carolina weir and drain system along the earthen embankment (\$180,000).

RC: \$4,076,000 – Funds will be used for routine operations and maintenance for recreation. There is a total of \$25,000 for sustainability work on this project to replace outdoor lighting at the Visitor's Center to LED fixtures.

H: \$4,229,000 – Funds will be used for routine maintenance of the hydropower plant.

EN: \$1,881,000 – Funds will be used for routine operations and maintenance including shoreline management, forest management, and boundary inspections. Perform non-routine operation and maintenance activities including completing the Shoreline Management Plan, conducting an Environmental Assessment in conjunction with Shoreline Management Plan update, updating the Master Plan, and surveying and resetting missing monuments for 30 locations.

WS: \$87,000 – Funds will be used for routine operations including management of three existing water supply agreements and water supply storage tracking.

OTHER INFORMATION: The budgeted amount for the project includes \$1,199,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD – 89.5%, NAV – 4.6% and FRM – 5.9%. Non-routine activities on jointly used features include geospatial land data mapping (\$484,000) and critical infrastructure protection assessment (\$70,000). In FY 2016, \$1,405,049 in Recreation revenue was returned to the United States Treasury. The project served over 9 million visitors in FY 2012. Associated visitor spending within 30 miles was \$343,219,000, and jobs supported by recreation were 3,675. The project supplied 20 communities with water. The Hartwell Power Plant

Division: South Atlantic

District: Savannah

Hartwell Lake, GA and SC

produced 513,493 mega-watt hours in FY 2016 with \$26,394,689 returned to the United States Treasury. Total cumulative flood damages prevented is over \$95,000. Hartwell Project received \$1.8M in Dec 2016 for mitigation from Duke Energy as required by FERC in relicensing of their Keowee Toxaway Hydro Station. The Keowee Station is located on the northern reach of the Seneca River tributary feeding Hartwell Lake.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$578,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Strom Thurmond (JST) Dam and Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located 22 miles north of Augusta, Georgia in Clarks Hill, SC, and consists of a 2,282-foot long, 200-foot high concrete section and a controlled spillway, 1,096 feet long. It provides a total storage of 2,900,000 acre-feet. The authorized project purposes include Hydropower, Flood Control, Recreation, Water Supply/Water Quality, Fish and Wildlife, and Navigation (no longer operated for NAV as there is no commercial traffic). The multi-purpose project's 80,000 acres of land, 70,000 acres of water, and 1,200 miles of shoreline inhabit seven counties in Georgia and South Carolina.

FISCAL YEAR 2016 ALLOCATION: \$9,788,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operations and maintenance on this multi-purpose project with power.

FISCAL YEAR 2017 ALLOCATION: \$18,399,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations and maintenance for this multipurpose project with power. Non-routine operations and maintenance activities include replacement of j-seals and bolts, head gate replacement, construction of bird and duck nesting boxes, survey and mark retained road easements, re-establishing several native long leaf pine tree stands, establishing new GIS layers under Shoreline Management Plan, treat invasive species, survey and reset of broken/destroyed monuments, and support National Pollinator Initiative. There is a total of \$50,000 for sustainability work on this project to include repair/replacement existing waterlines.

BUDGETED AMOUNT FOR FY 2018: M: \$3,605,500 O: \$8,396,000 T: \$12,001,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$325,000 – Funds will be used for routine operations and maintenance for flood risk management.

RC: \$3,614,000 – Funds will be used for routine operations and maintenance for recreation. Non-routine recreation activities includes repairing restroom/dump station septic system at Big Hart Campground, and shoreline stabilization at West Dam Park. There is a total of \$25,000 for sustainability work on the project to complete a professional energy audit of Project Manager's Office and Contractor's compound to quantify areas for energy savings.

H: \$4,439,500 – Funds will be used for routine operations and maintenance for hydropower.

EN: \$2,370,000 – Funds will be used for routine operations and maintenance for environmental stewardship. Non-routine operation and maintenance activities include remediation of dichloro-diphenyl-trichloroethane contamination, boundary surveying and recertification, and pest and invasive species management, completing a second year of hydrilla treatments, through a combination of grass carp stocking and herbicide treatments, to reduce the occurrence of Avian Vacular Myelinopathy (AVM) in bald eagles in accordance with the Thurmond AVM Reduction Plan.

Division: South Atlantic

District: Savannah

JST Dam and Lake, GA & SC

WS: \$86,000 – Funds will be used for routine operations for water supply including oversight of water contracts and water usage.

OTHER INFORMATION: The budgeted amount for the project includes \$1,167,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 85%, NAV - 8%, and FRM - 7%. Non-routine activities on jointly used features include \$333,000 for Geospatial Land Data Migration Mapping. J. Strom Thurmond Power Plant has a capacity of 364,000 kilowatts. The project served 5,041,679 visitors in FY2012 with \$979,903 in revenue returned to the United States Treasury. Associated visitor spending within 30 miles was \$166,125,000 and jobs supported by recreation were 1,632. The project supported supplied 7 communities with water. The J. Strom Thurmond Power Plant produced 847,431 megawatt hours in FY 2016, returning \$26,953,127 in revenue to the United States Treasury. J. Strom Thurmond project prevented an estimated \$275,000,000 in cumulative flood damages from 1955 to 2016 and has an average annual benefit of over \$2,000,000 in flood damages prevented.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$69,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richard B. Russell (RBR) Dam and Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1950 and 1958; Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: The dam is located on the Savannah River, near Calhoun Falls, South Carolina, and is 59 miles north of Augusta, Georgia. The dam has a concrete section 1,884-feet long with a maximum height of 210 feet and a controlled spillway 590-feet long. It provides 1,166,200 acre-feet of storage, of which 126,800 acre-feet are allocated for hydropower, 140,000 for flood control, and 899,400 for inactive storage.

FISCAL YEAR 2016 ALLOCATION: \$7,984,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance for this multipurpose project. Non-routine work includes completion of a master plan and environmental assessment.

FISCAL YEAR 2017 ALLOCATION: \$7,842,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance for the multi-purpose project.

BUDGETED AMOUNT FOR FY 2018: M: \$3,586,000 O: \$5,417,000 T: \$9,003,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$333,000 – Funds will be used for routine operations for flood risk management.

RC: \$300,000 – Funds will be used for routine operations and maintenance for recreation.

H: \$5,957,000 – Funds will be used for routine operations and maintenance for hydropower.

EN: \$224,000 – Funds will be used for routine operations and maintenance for environmental stewardship.

WS: \$86,000 – Funds will be used for routine operations for water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$2,103,000 for routine operation and maintenance of project features jointly used by multiple business lines: FRM - .25%, HYD - 79% and REC – 20.75%. Non-routine activities on jointly used features include geospatial land data mapping (\$137,000) and a critical infrastructure protection assessment (\$70,000). The RBR Power Plant produced 482,078 megawatt hours in FY 2016 and returned \$41,200,000 to the U.S. Treasury. The project served 902,641 visitors in FY 2012 with associated visitor spending within 30 miles of the project was \$36,224,000. Jobs supported by recreation in FY 2012 were 391. The project supplied 3 communities with water. The project prevented an estimated \$37,000,000 in cumulative flood damages from 1955 to 2016.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$323,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah Harbor, GA

AUTHORIZATION: Water Resource Development Act of 1992, Sec.101 (10)

LOCATION AND DESCRIPTION: The high use, deep draft navigation project is adjacent to Savannah, Georgia along the border between Georgia and South Carolina, consisting of a bar channel in the Atlantic Ocean 11.5 miles long, 44-feet deep and 600-feet wide and an inner harbor channel in the Savannah River 21-miles long, 42-feet deep and 500-feet wide. The inner harbor has six turning basins and an inactivated tide gate structure adjacent to a sediment basin. Kings Island Turning Basin is the primary turning basin adjacent to the Georgia Port Authority docks located near the upstream end of the harbor. There are eight active, upland dredged material containment areas adjacent to the inner harbor, and one off-shore dredged material disposal site used for harbor maintenance.

FISCAL YEAR 2016 ALLOCATION: \$26,636,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used to perform routine operations and maintenance in support of navigation which includes dredging to remove maintenance material in preparation of harbor deepening project.

FISCAL YEAR 2017 ALLOCATION: \$39,279,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations and maintenance for navigation which includes dredging to remove maintenance material in preparation of the harbor deepening project and Bird and Long Island repairs.

BUDGETED AMOUNT FOR FY 2018: M: \$31,284,000 O: \$2,152,000 T: \$33,436,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$33,436,000 - Funding provides for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Savannah Harbor was the second largest eastern U.S. seaport after the Port of New York/Newark in 2014 handling more than one million imports of TEUs (twenty-foot equivalent units) per year. Savannah Harbor tonnage is 52-percent export tonnage and 48-percent import tonnage collecting approximately \$52 million for the Harbor Maintenance Trust Fund in FY 2013. It serves as the rapid deployment Port of Embarkation for the 3rd Infantry Division (ID) and other elements of the 18th Airborne Corps. It is listed as one of 17 U.S. strategic ports because of the presence of the 3rd ID stationed at Fort Stewart. Savannah serves as a U.S. Coast Guard Station. Latest commercial tonnage for FY 2013 was 33.7 million tons of cargo. The major commodity imported and exported is crude materials, inedible except fuels, manufactured equipment and machinery. Per United States Department of Commerce/Bureau of the Census, the 2013 value of waterborne commerce through Savannah was \$27.7 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$183,000. There was an additional \$6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah River below Augusta, GA

AUTHORIZATION: Rivers and Harbors Acts of 1880, 1930 and 1950

LOCATION AND DESCRIPTION: The low use, shallow draft project begins upstream of Savannah Harbor at river mile 21.31 and continues upstream to river mile 202.6 ending at Augusta, Georgia. The New Savannah Bluff Lock and Dam is located 187 river miles above Savannah Harbor, Georgia and is approximately 13 miles downstream of Augusta, Georgia. The structure's original purpose was to provide for passage of commercial navigation on the Savannah River. Commercial navigation through the lock ceased in the early 1980s. In 2014, the lock was closed to operations for recreational boating and fish passage due to the structural integrity of the lock wall. The City of Augusta, Georgia has operated the lock from 1987 until 2014 under a lease agreement with the U. S. Army Corps of Engineers.

FISCAL YEAR 2016 ALLOCATION: \$118,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine maintenance for navigation.

FISCAL YEAR 2017 ALLOCATION: \$137,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operations and maintenance for navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$137,000 T: \$137,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$137,000 – Funds will be used for routine operations for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project is in caretaker status. The New Savannah Bluff Lock and Dam provides a pool upstream in the Augusta, Georgia and North Augusta, South Carolina areas for drinking water and industrial uses. The City of Augusta operates the recreation facilities. The lock, previously operated by the City of Augusta, was closed in 2014 due to safety concerns relating to continued scouring and erosion around the foundation of the lock wall.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: South Atlantic

District: Savannah

Savannah River below Augusta, GA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Point Dam and Lake, GA and AL

AUTHORIZATION: Flood Control Act of 1963

LOCATION AND DESCRIPTION: The multiple-purpose project is located approximately 70 miles southwest of Atlanta, Georgia, on the Chattahoochee River in Troup and Heard Counties, Georgia, and Chambers County, Alabama. The project includes a hydroelectric powerhouse, a 26,000-acre flood damage reduction reservoir with over 500 miles of shoreline, 31,000 acres of public land, and 38 recreation facilities.

FISCAL YEAR 2016 ALLOCATION: \$6,930,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of the multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$8,450,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance in support of the multi-purpose project. Non-routine work involves bulkhead replacement and critical infrastructure protection assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$7,331,000 O: \$4,816,000 T: \$12,147,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$116,000 – Funds will be used for routine operations and maintenance in support of flood risk management.

RC: \$2,737,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$264,000 for sustainability work to repair failing water lines.

H: \$6,630,000 – Funds will be used for routine operations and maintenance in support of hydropower and non-routine work to design the refurbishment of the emergency closure intake gate (\$150,000), replace tail-deck gantry crane (\$1,500,000), design turbine replacement (\$2,000,000) and replace generator circuit breaker (\$220,000).

EN: \$1,131,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: \$10,000 – Funds will be used for routine operations and maintenance in support of water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$1,523,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 45%, NAV - 2%, FRM - 15%, ENS – 11% and REC - 27%. Non-routine activities on jointly used features includes Geospatial Land Data Migration Mapping (\$273,000). This project is part of the Apalachicola-Chattahoochee-Flint (ACF) River System. The average annual amount of flood damages prevented is over \$5.5 million. There are over 2 million visits annually to the recreation facilities and the project has a hydropower capacity of 73,375 kilowatts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$244,000. There was an additional \$5,000 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

HAWAII

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barbers Point Deep Draft Harbor, Oahu, HI

AUTHORIZATION: River and Harbor Act of 1965, PL 89-298

LOCATION AND DESCRIPTION: The Barbers Point Harbor is a Federally-authorized, medium-use, deep-draft harbor on Oahu on the Ewa plain about 20 miles west of Honolulu, and the associated Pacific Regional Visitor Center (PRVC) which is located on the second floor of historic Battery Randolph at Fort DeRussy adjacent to Waikiki Beach. The PRVC functions as an informational visitor center, designed to educate the public on the Corps' work in the Pacific and focuses on the Honolulu District's Civil Works Water Resources Development Program. It serves over 76,000 visitors a year.

FISCAL YEAR 2016 ALLOCATION: \$452,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to operate the Pacific Regional Visitor Center and complete maintenance dredging of Barbers Point Harbor by the government dredge ESSAYONS, where an estimated 45,000 cubic yards of sediment were removed.

FISCAL YEAR 2017 ALLOCATION: \$260,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to operate the Pacific Regional Visitor Center

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$269,000 T: \$269,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$269,000 – Funds will be used to operate the Pacific Regional Visitor Center.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$240,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hilo Harbor, Hawaii, HI

AUTHORIZATION: The project was authorized under the River and Harbor Act of 1907 and subsequent work authorized under the River and Harbor Act of 1912 and 1925.

LOCATION AND DESCRIPTION: The Hilo Deep Draft Harbor is located on the northeast coast of the island of Hawaii. The project was completed in 1930 and consists of a 10,080 foot long breakwater protecting a 35 foot deep basin. Hilo Harbor is one of the two main commercial ports for the Island of Hawaii.

FISCAL YEAR 2016 ALLOCATION: \$190,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to complete Phase I maintenance dredging by government dredge ESSAYONS, where an estimated 90,000 cubic yards of sediment were removed.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$551,000 T: \$551,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$551,000 - Funds will be used to conduct an underwater inspection and design analysis of the breakwater structure at Hilo Harbor. The Fiscal Year 2015 Project Condition Surveys (PCS) Inspection Report documented the increasing damage to the federally authorized breakwater. Inspection of the Hilo Harbor breakwater above and below water level will enable overall assessment of the structure's condition. Repair options will be identified and a schedule of repairs will be developed. A design analysis will be prepared that documents the findings from field investigations and provide recommendations on breakwater repair.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$670,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nawiliwili Deep Draft Harbor, Kauai, HI

AUTHORIZATION: The project was authorized under the River and Harbor Act of 2 Mar 1919 and September 1954.

LOCATION AND DESCRIPTION: Nawiliwili Harbor is located on the southeast coast of the island of Kauai and is the island's principal commercial harbor. The medium use, deep draft harbor consists of a breakwater 2,045 feet in length, and an S-shaped entrance channel 40 feet deep with a minimum width of 600 feet and a length of 2,400 feet.

FISCAL YEAR 2016 ALLOCATION: \$495,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to complete Phase I maintenance dredging by the government dredge ESSAYONS and remove approximately 150,000 cubic yards of material for ocean disposal. FY 2016 funds were also used to initiate Phase II environmental analysis and preparation of plans and specifications for removal of sediment utilizing mechanical clamshell in portions of the harbor basin that were not accessible by the government dredge in Phase I.

FISCAL YEAR 2017 ALLOCATION: \$400,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to complete Phase II environmental analysis and plans and specifications for maintenance dredging of remaining harbor basin to attain Federally-authorized depths.

BUDGETED AMOUNT FOR FY 2018: M: \$4,815,000 O: \$0 T: \$4,815,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,815,000 - Funds will be used to award a contract to conduct Phase II maintenance dredging by mechanical clamshell in portions of the harbor basin that were not accessible by the government dredge during Phase I maintenance dredging operations. Remaining dredging is necessary to allow full use of Federal navigation channel & basin. Maintenance of the Federal project features ensures safe navigation for the island communities that are dependent on water borne commerce. An estimated 10,000 cubic yards of sediment will be removed by mechanical clamshell dredge.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$262,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

IDAHO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Albeni Falls Dam, ID

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516) and Section 4 of the Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Albeni Falls Dam is 26 miles west of Sandpoint, Idaho and 4 miles east of Newport, Washington on the Pend Oreille River in Bonner County, Idaho. It is located downstream of Avista's Cabinet Gorge Dam and upstream of the Pend Oreille Utility District's Box Canyon Dam, approximately 40 miles north of Spokane, Washington. The dam is a 90-foot-high concrete gravity, gate-controlled structure with a spillway 472 feet long. Overall length, including the non-overflow abutment section, is 755 feet. Ten spillway gates are the vertical lift roller-chain type. The powerhouse contains three Kaplan turbines and generators for a total installed rated capacity of 42.6 megawatts. The project is multi-purpose, providing flood control, power generation, and regulation of stream flow for 15 downstream federal and non-federal hydroelectric projects. Lake Pend Oreille water storage seasonally augments flows on the Columbia and Pend Oreille Rivers for power production downstream. Operation of Albeni Falls Dam project allowed for installation of additional units at Chief Joseph and McNary Dams, increasing the FCRPS firm power capabilities by 251 megawatts. Other purposes include navigation, recreation, and fish and wildlife conservation.

FISCAL YEAR 2016 ALLOCATION: \$1,046,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds provided for routine O&M of recreation facilities, navigation activities, flood control structure, flood risk management and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,274,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provide for routine O&M of recreation facilities, navigation activities, flood control structure, flood risk management and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$602,000 O: \$857,000 T: \$1,459,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,317,000 – Funding provides for routine operations and maintenance for recreation.

H: Routine operations and maintenance of the hydropower facilities is directly funded by Bonneville Power Administration.

EN: \$28,000 – Funding provides for routine operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$114,000 for project features jointly used by multiple business lines: NAV - 50.1% and FRM - 49.9%. Non-routine joint activities include the NEPA Analysis of the Columbia River Basin Operations (\$34,000); repair of Clark Fork drift yard (\$13,000); and Spillway Gate Recoating (\$7,000). Albeni Falls Dam project hosts the largest campground program in Seattle District. It supports four major recreation areas and two day use areas

Division: Northwestern

District: Seattle

Albeni Falls, ID

that include campgrounds, fishing docks, boat ramps, swim beaches, picnicking, playgrounds, trails, interpretation, and a Class B Visitor Center with displays, restrooms, a theater, and tours. Total visitation to this project for FY 2014 was 277,894 visitors with an estimated benefit to the local economy of \$6.8 million. The project produces approximately 231,000 megawatt-hours of electricity, enough for 21,000 homes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$74,000. There was an additional \$44,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dworshak Dam and Reservoir, ID

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: A multi-purpose project located in Northern Idaho on the north fork of the Clearwater River; near Orofino, ID. The project is part of the Federal Columbia River Power System. The project includes the dam, a reservoir that has a gross storage capacity of 3,468,000 ac-ft of water, a powerhouse with an installed capacity of 400 Megawatts, 30,935 acres of land that provides recreation facilities and wildlife mitigation habitat, and the Dworshak National Fish Hatchery.

FISCAL YEAR 2016 ALLOCATION: \$1,186,000

DESCRIPTIONS OF WORK FOR FY 2016: Funded routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations to avoid unscheduled outages, minimum recreation, and environmental stewardship. Non-routine activities included small capital improvements, monolith foundation joint drain repair, interim risk reduction measures to install seepage measurement equipment and replacement of two gas powered vehicles with an electric vehicle.

FISCAL YEAR 2017 ALLOCATION: \$2,862,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations to avoid unscheduled outages, minimum recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$2,602,000 **O:** \$2,193,000 **T:** \$4,795,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$984,000 – Funding will provide for Operations and Maintenance (O&M) for recreation. There is a total of \$50,000 for sustainability work on this project to include Replace Light Fixtures and purchase and install flow meters, valves and associated plumbing parts and supplies to track and isolate potable water flow.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Power Marketing Agency.

EN: \$255,000 – Funding will provide for Operations and Maintenance (O&M) for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$3,556,000 for project features jointly used by multiple business lines: NAV - 15.7% and FRM - 84.3%. The project includes Dworshak Dam, Dworshak Reservoir land, powerhouse, recreation facilities, wildlife mitigation and Dworshak National Fish Hatchery. Since 1972 \$2.8 million in potential flood damages have been prevented. The dam is the highest straight-axis concrete dam in the Western Hemisphere with a structural height of 717ft. The project encompasses about 50,800 acres of which 30,935 acres provide recreation facilities and wildlife mitigation habitat.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$450,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lucky Peak Dam and Lake, ID

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: Project is located in Southern Idaho on the Boise River, 15 minutes from Boise, Idaho. The project includes the dam, and a flood control and irrigation reservoir that has a gross storage capacity of 306,000 acre-feet of water. The reservoir and 4,288 acres of land provides recreation facilities to over a million visitors annually and valuable wildlife mitigation habitat.

FISCAL YEAR 2016 ALLOCATION: \$2,623,000

DESCRIPTIONS OF WORK FOR FY 2016: Funded routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations of the flood risk management mission, minimum recreation, and environmental stewardship. Non-routine activities included design of a maintenance Bulkhead Hoist System and Intake Tower Bridge rehabilitation and the purchase of pre-engineered steel building to store operating equipment. Also included are replacing the failing fire suppression water line and establish an interoperable radio communications link.

FISCAL YEAR 2017 ALLOCATION: \$4,405,000

DESCRIPTIONS OF WORK FOR FY 2017: Routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations of the flood risk management mission, minimum recreation, and environmental stewardship. Non-routine activities include the purchase and installation of a Maintenance Bulkhead Hoist System.

BUDGETED AMOUNT FOR FY 2018: M: \$1,786,000 O: \$1,912,000 T: \$3,698,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,724,000 – Funding provides for routine operations and maintenance for flood risk management. Non-Routine includes \$40,000 for security gate maintenance, \$200,000 for Slide Gate cylinder repair and \$343,000 for replacement of a failed Emergency Fire Suppression Water Line. Additional funds are provided for north emergency gate hoist gear alignment (\$230,000), slide gate cylinder rehabilitation, additional cylinder (\$150,000), and dam safety vegetation removal (\$100,000).

RC: \$802,000 – Funding provides for routine operations and maintenance for recreation.

H: N/A

EN: \$172,000 – Funding provides for routine operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project consists of the dam, Lucky Peak Lake and associated federal lands. The project provides for flood damage reduction, recreation, wildlife habitat and irrigation. Since 1961, more than \$1,225 million in potential flood damages have been prevented by the Lucky Peak Project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$290,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Northwestern

District: Walla Walla

Lucky Peak Dam and Lake, ID

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

ILLINOIS

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Calumet Harbor and River, IL & IN

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1935, 1960, 1962, and 1965 (P.L. 89-209)

LOCATION AND DESCRIPTION: Calumet Harbor and River is a high-use, deep-draft harbor located in northeastern Illinois, on the southwest shore of Lake Michigan in Cook County, fifteen miles south of Chicago Harbor. The harbor lies within the corporate limits of the City of Chicago, except for breakwaters, approach channel, and an anchorage area which are all in Indiana.

The project consists of two miles of breakwater (6,714 feet concrete capped timber crib structures, 5,007 feet of stone-filled sheetpile cell structures), an approach channel (3,200 feet wide, 1.8 miles long and 29 feet deep); a harbor channel (3,000 feet wide, two miles long and 28 feet deep); a river navigation channel (8 miles long and 27 feet deep); three turning basins; a dredged material disposal facility (DMDF) with a design storage capacity of 1,600,000 cubic yards (CY); a boat shed facility; and a stone materials dock.

FISCAL YEAR 2016 ALLOCATION: \$8,961,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$377,190 – Funds were used for operations, navigation channel and structures’ inspections, safety signage, and other management purposes.
- b. \$2,267,100 – Funds were used to remove 62,000 cubic yards (CY) of sediment accumulated within outer harbor and river channel areas to restore fully functional width and authorized depth.
- c. \$455,400 – Funds were used for sediment management within the DMDF (grading and piling), which allowed normal dredging/ storage operations to continue.
- d. \$1,361,250 – Funds were used to stabilize the timber crib within a 400-foot section of the failing shorearm breakwater that protects commercial traffic within the entrance channel from an unsafe wave climate.
- e. \$4,500,000 – Funds were used to remove 36,000 cubic yards (CY) of lakebed rock that protrudes deeply in to the center half width of outer harbor channel to deliver full authorized depth for project.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$7,227,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provided for: regular operations, navigation channel and structures’ inspections, safety signage, and responsiveness to agencies, and stakeholders; primary dredging 80,000 cubic yards of shoaling in functional channel areas to restore fully functional width and authorized depth; sediment management within the CDF; completion of dredge material management plan study, which will provide recommendation for upland storage for the project; air quality monitoring around perimeter of facility; repair of critical 600-ft section of failing harbor entrance breakwater that protects navigational channel and protects commercial traffic from unsafe wave climate. Additional funds are provided for phase III of the outer harbor functional channel rock removal (\$4,400,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,791,000 O: \$1,017,000 T: \$3,808,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,808,000 total

- a. \$400,000 - Funds will be used for operations, navigation channel and structures’ inspections, safety signage, and responsiveness to agencies and stakeholders.
- b. \$617,000 - Funds will be used for sediment management within the Dredged Material Disposal Facility (grading, drying and moving/piling), which will allow normal dredging/storage operations to continue.
- c. \$1,520,000 – Funds will be used to dredge 45,000 CY of sediment from harbor and river channel segments.

Division: Great Lakes and Ohio River

District: Chicago

Calumet Harbor and River, IL & IN

- d. \$1,271,000 – Funds will be used to repair 750 foot section of harbor shore-arm, filling the disintegrated crib timber and resultant lost fill material with grout to provide continual support to the concrete superstructure.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The confined disposal facility (CDF) has reached its original design capacity, and life-extension measures are being implemented. Design and construction of a new dredged material disposal facility are expected to require at least six years to complete. Lack of adequate disposal facilities will interfere with routine maintenance dredging.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$434,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carlyle Lake, IL

AUTHORIZATION: Flood Control Acts of 1938, 1944, and 1958.

LOCATION AND DESCRIPTION: The project, completed in 1967, is located on Kaskaskia River, approximately 107 miles above its mouth, near the community of Carlyle, Illinois. Portions of the project are situated in Clinton, Fayette, Bond, and Marion Counties. Carlyle Lake is the largest man-made lake in Illinois, with over 26,000 acres of water and 11,000 acres of public land. It provides flood control, water quality control and water supply to nearby communities, recreation, and fish and wildlife conservation. It is authorized to augment navigation flows downstream on the Kaskaskia River.

FISCAL YEAR 2016 ALLOCATION: \$5,799,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to operate and maintain the project for flood risk, recreation, environmental stewardship, and water supply and to repair flood damages (December 2015/January 2016) to allow for safe operation. Funds were used to complete an update of the Carlyle Lake Master Plan using the watershed approach and to complete the Periodic Inspection of the main dam and flood control structures.

FISCAL YEAR 2017 ALLOCATION: \$6,287,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to operate and maintain the project for flood risk, recreation, environmental stewardship, and water supply, complete installation of a solar array for office complex efficiencies (sustainability) and complete efficiency improvements in the Boulder and Dam East Recreation Areas.

BUDGETED AMOUNT FOR FY 2018: M: \$3,075,000 O: \$3,673,000 T: \$6,748,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,288,000 – Funds will be used for routine operation and maintenance for flood risk management.

RC: \$3,682,000 – Funds will be used for routine operation and maintenance for recreation. Provides for efficiency improvements (sustainability) to Boulder Sewage Treatment System (\$600,000).

H: N/A

EN: \$745,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$33,000 – Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: FY 2012 project visitation was 2.85 million with \$80 million in recreation visitor spending (due to nationwide efforts to update the visitation estimation and reporting system FY13-FY16 data is unavailable).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$32,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago Harbor, IL

AUTHORIZATION: The Rivers and Harbors Acts of 1870, 1880, 1912, 1919, and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Chicago Harbor is low-use, deep-draft harbor located in northeastern Illinois, on the southwest shore of Lake Michigan within the corporate limits of the City of Chicago and Cook County. Chicago Lock consists of four outer breakwater reaches and two inner breakwater reaches that protect Navy Pier, Chicago Lock, Chicago Water Filtration Plant, Monroe St. Harbor, Grant Park and other facilities from damage due to storms. It includes an entrance channel (800-foot wide and 29 feet deep), and an outer harbor area (28 feet deep). The channel to the mouth of the Chicago River is at a depth of 21 feet.

FISCAL YEAR 2016 ALLOCATION: \$5,448,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$2,648,000 - Funds were used for operation and maintenance of Chicago Lock.
- b. \$1,749,000 – Funds were used to complete a winter closure, dewater and inspect both lock gate bays' mechanical and structural components, replace damaged gate seal to control Lake Michigan diversion, repair bubbler system to maintain continuous operations all year, and add new concrete ballast materials to replace loose ballast blocks that threatened to disrupt gate operations after backflow events.
- c. \$620,000 – Funds were used to complete the first of two project phases to relocate utilities from North Pier tunnel per Oct 2012 PI#5 directives and 2009 SPRA cadre recommendations.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$11,159,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provided for minimum essential operation and maintenance of Chicago Lock, 24/7 with 100% availability to commercial towboat and deepdraft barges and for dam safety and asset management programs to track high risk/consequence assets. Additional funding is provided for the northeast breakwater crib stabilization (\$6,050,000) and the north pier phase 2 dockwall replacement (\$2,285,000).

BUDGETED AMOUNT FOR FY 2018: M: \$572,000 **O:** \$2,448,000 **T:** \$3,020,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,020,000 – Funds will be used for minimum essential operation and maintenance of Chicago Lock to provide 24/7, 100% availability to commercial towboat, deepdraft barges, government, passenger and recreational vessels. Additional work includes the installation of additional site lighting to meet security requirements and resurfacing of portion of the concrete lock chamber wall.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The northeast breakwater is the port's main shield from the worst storms and largest waves on Lake Michigan. Only 950 feet of the 5,300 foot long, 125-year old timber crib has been stabilized with grout. Grout stabilization is needed along the remaining length due to accelerated crib

Division: Great Lakes and Ohio River

District: Chicago

Chicago Harbor, IL

deterioration from prolonged low lake levels. The technique requires only 20% of the cost of reconstructing failed segments.

The Chicago Lock provides extremely significant flood control benefits to the City of Chicago in preventing downtown flooding by the Chicago River, although the project was not authorized for this purpose. Significant repairs are needed to ensure the structural stability of the North Pier, but funding is difficult to obtain due to the mismatch between the authorized purposes of the project, and the benefits it delivers to the City of Chicago.

By separating the Chicago River from Lake Michigan, the North Pier functions like a dam, and is categorized as a Dam Safety Action Classification (DSAC) level 2. This means its condition is poor, and requires close monitoring of its structural components. A failure of this asset could lead to an uncontrolled release of Lake Michigan water into the Chicago River, and potentially flood portions of downtown Chicago.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$132,000. There was an additional \$37,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago River, IL

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1907, and 1946

LOCATION AND DESCRIPTION: The Chicago River is located in northeastern Illinois, within the corporate limits of the City of Chicago and Cook County. The project consists of a navigation channel that is 2.97 miles long and 21 feet deep from Michigan Avenue to North Avenue. A navigation channel, 3.7 miles long and 9 feet deep from North Avenue to Addison Street has also been authorized, but not constructed. The project also includes a perpetual responsibility for water control, as well as routine and emergency monitoring of the waterways within the Chicago District.

FISCAL YEAR 2016 ALLOCATION: \$554,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$236,000 – Funds were used to perform routine project operations, coordination, and channel condition surveys.
- b. \$180,000 – Funds were used to perform water control management and monitoring.
- c. \$139,000 – Funds were used to continue the operation and maintenance of the stream gage network.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$572,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provided for river operations in a major urban area. Collect precipitation and streamgage data for flood surveillance for City of Chicago, Emergency Management and NWS River Forecast Center.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$593,000 T: \$593,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$593,000 – Funds will be used for routine operations. Major activities include hydrographic surveys of river channel bathymetry and the collection of precipitation and streamgage data for flood surveillance for the City of Chicago, Emergency Management, and NWS River Forecast Center.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Chicago

Chicago River, IL

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chicago Sanitary and Ship Canal Dispersal Barriers, IL

AUTHORIZATION: Section 105, Consolidated Appropriations Act of 2012 (P.L. 112-74), Section 126, Energy & Water Development Appropriations Act of 2010 (P.L. 111-85), Section 3061, Water Resources Development Act 2007 (P.L. 110-114). Barrier I: Section 1202, Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646), as amended, Section 2309, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery 2006 (P.L. 109-234). Barrier II: Section 1135, Water Resources Development Act 1986 (P.L. 99-662), as amended, (Continuing Authority Program), Section 345, FY 2005 DC Appropriations Act (P.L. 108-335).

LOCATION AND DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago and Des Plaines Rivers. It is a part of the Chicago Area Waterway System, the only continuous waterway connection between the Great Lakes and Mississippi River basins. The dispersal barrier system was developed to deter the spread of invasive fish species between these watersheds. It includes the construction and operation of three electrical barriers, known as Barriers I, IIA, and IIB. Barrier I was constructed as a demonstration project and has been operating in the CSSC since 2002. A permanent electric barrier (Barrier II), with a design life of 20 years, was implemented in two independent stages (A & B). Barrier IIA has been operational since April 2009. Barrier IIB has been operational since April 2011. Barrier I and Barrier II were authorized as separate projects. Section 3061 of WRDA 2007 reauthorized the barriers as a single project at 100 percent Federal expense. WRDA 2007 also authorized USACE to upgrade and make permanent Barrier I; complete Barrier II; operate and maintain both barriers as a system; conduct a study of a range of options and technologies for reducing impacts of hazards that may reduce the efficacy of the barriers (Efficacy Study); and provide to each state a credit in an amount equal to the amount of funds the state contributed toward Barrier II. Construction of a permanent Barrier I facility was initiated in fiscal year (FY) 2013 and is scheduled for completion in FY 2018.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: All work done under the Construction account.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: All work done under the Construction account.

BUDGETED AMOUNT FOR FY 2018: M: \$4,100,000 O: \$12,600,000 T: \$16,700,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$16,700,000 – Funds will be used for operation and maintenance of the entire electric dispersal barrier system (Barrier I, IIA & IIB, and Demo) and the structural solutions to reduce the risk of fish bypass during flooding of the neighboring Des Plaines River and Illinois and Michigan Canal. The operation is 24 hours a day, 7 days a week. The CSSC connects the Great Lakes and Mississippi River Basins and allows transfer of non-native aquatic species.

Division: Great Lakes and Ohio River

District: Chicago

Chicago Sanitary and Ship Canal
Dispersal Barriers, IL

WS: N/A

1/ Unobligated "Carry-in" Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Farm Creek Reservoirs, IL

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project includes two reservoirs (Fondulac and Farmdale) located on tributary streams to the Illinois Waterway upstream of Peoria, Illinois providing flood control for East Peoria, Illinois.

FISCAL YEAR 2016 ALLOCATION: \$293,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of flood risk reduction infrastructure.

FISCAL YEAR 2017 ALLOCATION: \$446,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of flood risk reduction infrastructure.

BUDGETED AMOUNT FOR FY 2018: M: \$413,000 O: \$116,000 T: \$529,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$425,000 – Funds will be used for routine maintenance of two reservoirs, Farmdale and Fondulac.

RC: N/A

H: N/A

EN: \$104,000 – Funds will be used for routine operation and maintenance for environmental stewardship and for completion of the master plan.

WS: N/A

OTHER INFORMATION: Regional FY 2015 economic impacts are \$905,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$33,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVR Portion), IL & IN

AUTHORIZATION: Rivers and Harbors Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project includes a total of 268 river miles of 9-foot commercial navigation channel from Chicago to LaGrange Lock and Dam, near Beardstown, IL with eight locks and seven dams. The navigable portions of this river and the locks and dams that allow waterway traffic to move from one pool to another are integral parts of a regional, national, and international transportation network. Recreation facilities include a visitor center at Starved Rock Lock and Dam.

FISCAL YEAR 2016 ALLOCATION: \$48,630,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 were used to continue the permanent repairs to Marseilles Dam, procure Starved Rock and Marseilles Miter Gates, repair Starved Rock Upper Guide Wall concrete, replace Dresden Dam gates, repair Joliet Wall concrete at Brandon Road, conduct channel maintenance to include dredging, and conduct routine operation and maintenance of navigation, environmental and recreation infrastructure. Funds were also used to award a contract to install bulkhead recesses at Lagrange Lock and Dam.

FISCAL YEAR 2017 ALLOCATION: \$34,284,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used to operate and maintain eight lock and dam sites and the project office, critical fleet maintenance support service, dredging, water control, dredged material disposal, dam safety, and real estate management. Funds will also provide for the following non-routine items: completion of Starved Rock Upper Guide Wall concrete repairs and Marseilles Miter Gates. Prioritized maintenance contracts awarded prior to FY17 will require S&A labor to continue. Additional funds are provided to prepare plans and specifications and award contract for Starved Rock Lock and Dam lower miter gates (\$150,000) and perform supervision and administration for Dresden Island Lock and Dam boiler and steam line repair (\$75,000).

BUDGETED AMOUNT FOR FY 2018: M: \$29,405,000 O: \$18,929,000 T: \$48,334,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$47,778,000 – Funds will be used for operation and maintenance at eight lock and dam sites and the project office, critical fleet maintenance support service, dredging, water control, dredged material disposal, dam safety, and real estate management. Non Routine maintenance tasks include Peoria, Marseilles and Starved Rock Miter Gate procurements, Starved Rock Guidewall Repair, Dresden Dam Gates, Brandon Road Joliet Wall Concrete Repairs, Safety Guard Rail Replacement, Lagrange Bulkhead Recesses, and Dewaterings. Emergency work for Illinois waterway Peoria service base sheet pile wall maintenance (\$3,300,000), Marseilles upper bulkhead recesses (\$2,918,000), and Starved Rock upper bulkhead recesses (\$2,918,000).

FRM: N/A

RC: \$485,000 – Funds will be used for operation and maintenance of the visitor center at Starved Rock Lock and Dam. These funds support management of the recreation program and public visitation by providing safe recreation facilities and visitor assistance and protection.

H: N/A

EN: \$71,000 – Funds will be used for annual stewardship activities to protect the health, sustainability and integrity of the public lands associated with the project. These activities include natural resource

Division: Mississippi Valley

District: Rock Island

Illinois Waterway (MVR Portion), IL & IN

management practices, boundary maintenance, environmental evaluation and reviews, shoreline protection, cultural resource investigations, and water quality control.

WS: N/A

OTHER INFORMATION: More than 580 manufacturing facilities, terminals and docks ship and receive goods on the Upper Mississippi River Basin, which includes the Illinois Waterway. Annually, the regional project generates an estimated \$1 billion of transportation cost savings compared to overland methods. Regional FY 2014 regional recreational economic impacts are \$2.2 million with an estimated 79,000 recreation visitations.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$596,000. There was an additional \$63,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVS Portion), IL & IN

AUTHORIZATION: Rivers and Harbors Acts of 1927 and 1930

LOCATION AND DESCRIPTION: The portion of the Illinois Waterway within the boundaries of the St. Louis District extend from the mouth of the Illinois River at Grafton, Illinois to the tail water of LaGrange Lock and Dam at mile 80.15. The project operates and maintains the nine-foot navigation channel by dredging, channel patrol, water management, environmental compliance, stewardship of 16,000 acres of public lands and waters and river engineering. This is a high use waterway/navigation project.

FISCAL YEAR 2016 ALLOCATION: \$2,158,000

DESCRIPTIONS OF WORK FOR FY 2016: Activities in FY 2016 included dredging and channel maintenance and stewardship activities.

FISCAL YEAR 2017 ALLOCATION: \$1,847,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform minimum necessary levels of dredging on the main channel, channel patrol, water management, and environmental compliance.

BUDGETED AMOUNT FOR FY 2018: M: \$1,458,000 O: \$500,000 T: \$1,958,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,774,000 – Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

REC: N/A

H: N/A

EN: \$184,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The Illinois Waterway accounts for approximately 50 percent of the commercial commodity tonnage shipped south through St. Louis Harbor. The lower Illinois River project lands and waters contain important Federal and State managed wildlife areas and heavily utilized recreational features. This area includes approximately 16,000 acres of land, six state conservation areas, and one state park. FY 2012 project public visitation was in excess of 150,000 adding \$3,000,000 value to the region. (Due to nationwide efforts to update the visitation estimation and reporting system FY13-FY16 data is unavailable).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$7,000. There was an additional \$185,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: St. Louis

Illinois Waterway
(MVS Portion), IL & IN

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kaskaskia River Navigation, IL

AUTHORIZATION: Rivers and Harbors Act of 1962, Section 101; Water Resources Development Act (WRDA) of 1996, Section 321, Public Law (PL) 104-303; WRDA of 2000, Section 311, PL 106-541.

LOCATION AND DESCRIPTION: The project is located in south-central Illinois and empties into the Mississippi River 118 miles above the Ohio River. The project consists of a 36-mile navigation channel; a 600-foot lock; a dam with gated spillway; 3,000 acres of fee and easement lands; 6,000 acres of flowage easement; three barge terminals; two marinas; four major recreation areas with boat ramps; and numerous minor access points. Authorized purposes are navigation, recreation, fish and wildlife, and habitat restoration. This is a low use waterway/navigation project and safe harbor.

FISCAL YEAR 2016 ALLOCATION: \$4,762,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance of the project, dredging of the mouth two times due to major floods in the summer of 2015 and winter 2015-2016, updating the project Master Plan using the watershed approach, flood fighting operations during the 2015-16 major winter flood event to save the structures. Unwatering of the lock was deferred due to flood fight repairs and dredging needed at the mouth of the Kaskaskia. Repairs included repairing input/output racks, installing limit switches/cables, repairing closed circuit television system/camera and security systems, providing temporary office trailer for use while flood damaged offices were repaired, repairing the control room and visitor center. Funds were also used to develop an Arc Flash Safety Plan to comply with safety laws and regulations; to develop plans and specifications for repairs to damaged tainter gates/trunion braces and to inspect and test the dam bulkheads to determine if it is feasible to repair them.

FISCAL YEAR 2017 ALLOCATION: \$3,743,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for minimal operation and maintenance of the lock and dam and dredging of the mouth at less than 50% authorized, to operate recreation areas and visitor center, perform environmental compliance activities and recurring environmental stewardship effort that protect project natural resources in accordance with legal mandates. Additional funds are provided for channel dredging (\$400,000), dredging to authorized dimensions, dredging due to increased siltation from 2015 winter floods (\$500,000), and dredging to allow "one lane" access (\$750,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,202,000 O: \$1,687,000 T: \$4,889,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,429,000 – Funds will be used for routine operation and maintenance for flood risk management. Additional funds are provided to repair failed bulkhead hoisting equipment (\$150,000).

FRM: N/A

RC: \$218,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$242,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

Division: Mississippi Valley

District: St. Louis

Kaskaskia River Navigation, IL

OTHER INFORMATION: Commercial tonnage through lock continues upward. Tonnage was 928,000 in FY 2012, 1,014,250 in FY 2013, 1,277,840 in FY 2014, 1,313,021 in FY2015, and 1,392,860 in FY 16. FY2017 and beyond will continue upward with the \$5 billion dollar Prairie State Energy Campus on-line requiring a million tons of limestone a year for the scrubbers, the \$6 million dollar expansion of the Gateway FS bulk fertilizer facility at the Kaskaskia Regional Port District (KRPD) Dock 2 is in operation, steel increasing and tow boat construction underway. KRPD and the State of Illinois are currently developing a new grain terminal at Fayetteville. FY 2012 project visitation was 399,720 generating recreation economic benefits estimated at \$11,088,200.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$1,241,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Michigan Diversion, IL

AUTHORIZATION: Water Resources Development Act 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The Lake Michigan Diversion is in northeastern Illinois, centered around the City of Chicago. The work on this project involves flow and precipitation measurement in ungaged diversion watersheds, hydrologic modeling, and hydraulic modeling of outflows.

FISCAL YEAR 2016 ALLOCATION: \$652,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$614,000 – Funds were used for Lake Michigan water diversion data collection and flow measurements.
- b. \$162,000 – Funds were used for Lake Michigan water diversion data analysis, diversion accounting, modeling, and reporting efforts.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: FY 2017 funds will be used for data collection, flow measurements, water diversion data analysis, diversion accounting, modeling, and reporting efforts. U.S. Supreme Court ordered Lake Michigan water diversion in all Great Lakes states.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,100,000 T: \$1,100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: 1,100,000 Total

- a. \$800,000 – Funds will be used for activities required to meet U.S. Supreme Court ordered Lake Michigan water diversion data collection, analysis, reporting, and water diversion accounting modeling.
- b. \$300,000 – Funds will be used to complete Technical Committee activities as required by US Supreme Court order.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Beginning with the State of Illinois' reversal of the flow of the Chicago River in 1900, the other Great Lakes states (Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin) have been concerned about the diversions of Lake Michigan water out of the basin. Their concern has led to litigation and a series of U.S. Supreme Court Decrees, which have regulated the diversion since 1925. The 1967 Decree, modified in 1980, specifies the allowable diversion at 3,200 cubic feet-per-second. The USACE measures the actual diversion amount. Measurements are presently taken on the Chicago Sanitary and Ship Canal near Lemont. In accordance with the U.S. Supreme Court Decree and the Water Resources Development Act of 1986, the District maintains the responsibilities to complete diversion accounting computations and certification.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Shelbyville, IL

AUTHORIZATION: Flood Control Acts of 1944 and 1958

LOCATION AND DESCRIPTION: The project is located in Shelby and Moultrie counties and provides flood control, water supply, recreation, conservation of fish and wildlife, and water quality control and augments navigation flows downstream on the Kaskaskia River.

FISCAL YEAR 2016 ALLOCATION: \$6,146,000

DESCRIPTIONS OF WORK FOR FY 2016: Activities in FY 2016 included operating and maintaining the project and implementing recreation efficiencies and improvements and sustainability measures.

FISCAL YEAR 2017 ALLOCATION: \$6,195,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operation and maintenance of the project including maintaining the main dam, operation of high use recreation areas and environmental stewardship. In addition, funds are being used for 2015 winter flood repairs, a siltation survey (\$200,000), to clear brush and replace boundary posts and signs for Shelbyville (\$10,000), and for water management (\$10,000).

BUDGETED AMOUNT FOR FY 2018: M: \$5,178,000 O: \$3,657,000 T: \$8,835,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,733,000 – Funds will be used for routine operation and maintenance for flood risk management. Non-routine activities include repairs to the stilling basin (\$2,263,000) and spillway ditches (\$250,000).

RC: \$3,438,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$621,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$43,000 – Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: FY15 project visitation was 4,086,000 visits (FY16 numbers are not available as of this date).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$56,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVR Portion), IL

AUTHORIZATION: Rivers and Harbors Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project consists of a 314 river-mile reach of 9-foot commercial navigation channel from Guttenberg, IA, downstream to Saverton, Missouri. It includes 14 locks and 11 dams at 12 sites from locks 11 through 22. Recreation facilities include 25 public recreation areas and the visitor center located at Lock and Dam (L&D) 15.

FISCAL YEAR 2016 ALLOCATION: \$84,523,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to construct bulkhead slots at L&Ds 14, 15, 16 and 17, procurement of miter gates for L&Ds 12 and 15, repair L&D 18 concrete upstream dam gate piers, repair L&D 21 guide wall foundation, dewater L&Ds 13 and 21, conduct channel maintenance including dredging, operate and maintain navigation, environmental and recreation infrastructure. Funds were also used to administer ongoing fabrication contracts for gate replacements at Locks 16, 13, 11, & 14.

FISCAL YEAR 2017 ALLOCATION: \$86,265,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to operate and maintain twelve L&D sites and the project office; fleet maintenance support service; dredging; dredged material disposal; water control; periodic inspection; dam safety; and real estate management. Non-routine activities include: repair concrete L/Ds 13 and 17 monoliths, repair L/D 20 structural support beam for miter gate machinery, install relief wells at L/Ds 11 and 18, repair L/D 21 dam tainter and roller gates, repair L/D 14 guidewall foundation, repair Lock 19 service gates, repair L/D 11 dam tainter gate chains, dewater L/D 17, repair L/D 22 dam, and replace the anchorage system at L/D 20. In addition, funds are being used to revise the Mississippi River master plan (\$150,000), supervision and administration (S&A) / engineering during construction (EDC) for L/D 11,13,14,16 miter gates (\$170,000), install L/D 16 downstream (D/S) bulkhead slots (\$175,000), install L/D 15 D/S bulkhead slots (\$175,000), procure L/D 12 miter gates (\$150,000), S&A EDC for lock 19 guard gate replacement (\$20,000), repair lock 18 dam concrete and install instrumentation (\$345,000), and repair L/D 21 guidewall foundation (\$245,000).

BUDGETED AMOUNT FOR FY 2018: M: \$62,630,000 O: \$31,323,000 T: \$93,953,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$90,192,000 – Funds will be used for operation and maintenance at twelve L&D sites and the project office; fleet maintenance support service; dredging; dredged material disposal; water control; periodic inspection; dam safety; and real estate management. Non routine maintenance items include L/Ds 14 and 15 Guidewall Foundation Repair (\$185,000), Miter Gate Procurement (\$272,000), L/D 11 Tainter Gate Chains and Relief Wells (\$450,000), L/Ds 13 and 17 Monolith Repairs (\$480,000), Install Bulkhead Recesses at Multiple Sites (\$650,000), Safety Guard Rail Replacement (\$1,000,000), L/D 18 Floor Stabilization and Relief Wells (\$445,000), Lock 19 Service Gates (\$200,000), Wing Dam Repairs (\$3,500,000), Lock 20 Support Beams and Anchorage System (\$400,000), L/D 22 Dam Repairs (\$150,000), L/D 21 Repair Dam Tainter and Roller Gates (\$395,000), LeClaire Base Master Plan Maintenance (\$4,250,000), dewater L/D 16 Mississippi River (\$3,500,000), L/D 13 non overflow and overflow spillway riprap repairs (\$800,000), L/D 14 auxiliary bulkhead fabrication (\$4,800,000), and L/D 15 dam service bridge repair (\$7,892,000)

FRM: N/A

RC: \$2,676,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

Division: Mississippi Valley

District: Rock Island

Mississippi River between
Missouri River and Minneapolis
(MVR Portion), IL

EN: \$1,085,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: More than 580 manufacturing facilities, terminals and docks ship and receive goods on the Upper Mississippi River Basin. Annually, the regional project generates an estimated \$1 billion of transportation cost savings compared to overland methods. The savings equates to around \$24 per ton. FY 2015 recreation fee receipts and lease revenues were \$455,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$588,000. There was an additional \$41,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVS Portion), IL

AUTHORIZATION: Rivers and Harbors Act of 1930, as amended by Public Resolution No. 10 (1932).

LOCATION AND DESCRIPTION: The project extends from the mouth of the Missouri River at St. Louis upstream to the tail water of Lock and Dam (L&D) 22. It is a high use waterway/navigation project that includes 105 miles of river, a nine-foot navigation channel via a system of locks and dams; regulating works, dredging, stewardship of 50,000 acres of public lands, compliance, and 46 recreational access areas.

FISCAL YEAR 2016 ALLOCATION: \$28,311,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform operation and maintenance activities on 105 miles of navigation channel, Locks & Dams 24, 25 and Mel Price Lock, environmental stewardship for 50,000 acres of public lands and access/outreach/education of 3,600,000 visitors. Funds were also used for non-routine repair work to include task orders for rehab of the dam piers and installation of tainter gate chains and sprockets at Lock and Dam 25.

FISCAL YEAR 2017 ALLOCATION: \$22,018,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to operate and maintain the project, including operation of Locks & Dams 24, 25, and Mel Price, 105 miles of navigation channel maintenance, environmental compliance, environmental stewardship, recreation and public education. Funds are also being used for critical maintenance and repairs to Locks 24, 25, and Mel Price. Additional funds are provided for resolution of encroachments and trespasses on fee title land (\$50,000).

BUDGETED AMOUNT FOR FY 2018: M: \$35,851,000 O: \$8,049,000 T: \$43,900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$41,592,000 – Funds will be used for routine operation and maintenance of project, including operation of Locks and Dams 24, 25 and Mel Price Lock and maintenance of the navigation channel. Non-routine work will include upgrades to lighting as sustainability measures (\$162,000), repair miter gate anchorage at lock 25 (\$1,200,000), replace condemned roller gate bulkheads (\$5,000,000), replace bulkhead hoist crane for lock 24 and 25 (\$3,000,000), perform concrete repairs to lockwall at lock 25 (\$300,000), sandblast and paint lock bullnose at lock 25 (\$160,000), repair downstream landwall miter gate for lock 24 (\$450,000), Lock 25 dam pier rehab (\$7,900,000), and repair Mel Price side guide cell (\$500,000).

FRM: N/A

RC: \$1,408,000 – Funds will be used for routine operation and maintenance for recreational.

H: N/A

EN: \$900,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Total commercial commodities passing through the project in FY 2016 were

Division: Mississippi Valley

District: St. Louis

Mississippi River between
Missouri River and Minneapolis
(MVS Portion), IL

60 million tons. FY 2012 project public visitation was 3,600,000 which contributes \$64,500,000 in economic benefits to the region.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$41,000. There was an additional \$19,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rend Lake, IL

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located near Benton, Illinois in Franklin and Jefferson Counties. The project provides flood control, water supply, recreation, and conservation of fish and wildlife. The earth dam is located on the Big Muddy River at mile 103.7 and two sub-impoundment dams are located on the upper arms of the lake.

FISCAL YEAR 2016 ALLOCATION: \$5,550,000

DESCRIPTIONS OF WORK FOR FY 2016: Activities in FY 2016 included operation and maintenance of the project and periodic inspection of the main dam and sustainability work packages for solar and LED lighting upgrades.

FISCAL YEAR 2017 ALLOCATION: \$5,656,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operation and maintenance of the project including maintaining the main dam and two sub-impoundment dams, operation of high use recreation areas, environmental stewardship, and \$1,000 for water management.

BUDGETED AMOUNT FOR FY 2018: M: \$2,984,000 O: \$4,609,000 T: \$7,593,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,477,000 – Funds will be used for routine operation and maintenance for flood risk management.

RC: \$3,037,000 – Funds will be used for routine operation and maintenance for recreation. Non-routine activities include implementation of recreation efficiencies and improvements (\$120,000).

H: N/A

EN: \$1,007,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$72,000 – Funds will be used for routine operation for water supply.

OTHER INFORMATION: FY 2012 project visitation was 3,672,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waukegan Harbor, IL

AUTHORIZATION: Rivers and Harbors Act of 1902, 1930, 1945, and Section 201 of the Rivers and Harbors Act of 1970.

LOCATION AND DESCRIPTION: Waukegan Harbor is an emergent, deep-draft harbor located on the western shore of Lake Michigan in Waukegan, IL. The project consists of 1,900 feet of protective breakwater, 4,225 feet of protective piers, and a 13-acre inner basin.

FISCAL YEAR 2016 ALLOCATION: \$3,479,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging to restore minimum functional depth within the approach channel. Funds were also used to replace the failed superstructure concrete on the east end of the North Pier.

FISCAL YEAR 2017 ALLOCATION: \$1,580,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2017 funds provides for maintenance dredging to restore minimum functional depth of the approach channel.

BUDGETED AMOUNT FOR FY 2018: M: \$2,000,000 O: \$0 T: \$2,000,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,000,000 – Funding provides for dredging of the significant shoaling to restore minimum functional depth of the approach channel. Port closes to commercial traffic without annual dredging of this area.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: If annual dredging is not performed, winter storms will close the harbor to all deep-draft vessels. Temporary harbor closure has occurred every year from 2011 through 2014 truncating the shipping season and harming industrial operations. Annual closure is due to the large shoal (400,000 – 500,000 CY) that has accumulated immediately north of the Approach Channel along the outer breakwater. Advanced maintenance dredging is necessary, although recent efforts have been inadequate to ensure channel reliability. The continued commercial viability of the bulk cargo terminals in the port are completely dependent on annual dredging of 80K CY of sand within the harbor approach channel, and at least 70K CY of sand within the advanced maintenance area. Meeting this dredging need would require \$1.75M annually, although substantial savings could be achieved if a larger dredging effort was completed periodically (every two years) as opposed to annually. The port provides a Life Safety function on southern Lake Michigan. The USCG sets barge traffic load lines contingent on this port being available as a harbor of refuge. Lacking maintenance dredging, the port will be impossible to enter during a storm. Barge operators in the region will then be compelled to light-load their vessels to comply with more restrictive USCG safety requirements, reducing shipping efficiency and profitability.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$176,000. There was an additional \$5,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Great Lakes and Ohio River

District: Chicago

Waukegan Harbor, IL

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

INDIANA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brookville Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Brookville Lake is located in Franklin and Union counties on the East Fork of the Whitewater River about one-half mile above Brookville, IN. The dam is an earthen-fill structure, 181 feet high and 2,800 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,117,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2015 carry-in funds were used to replace water lines after years of leaks, repairs and stabilization issues for the FRM business line. All other project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,357,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$279,000 O: \$937,000 T: \$1,216,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,038,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$67,000 – Funding provides for routine O&M of recreation.

H: N/A

EN: \$103,000 – Funding provides routine O&M for environmental stewardship.

WS: \$8,000 – Funding provides for performance of routine activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$925,000 and total \$39,779,000 since 1973. FY 2012 recreation visits were 689,287 and estimated visitor expenditures were \$15,160,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$64,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Burns Waterway Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1965 (P.L. 89 -298); Sec 121 of Energy and Water Development Appropriations Act of 2005 (P.L. 108-447)

LOCATION AND DESCRIPTION: Burns Waterway Harbor is a moderate-use, deep-draft harbor located in northwestern Indiana. It is on the southern shore of Lake Michigan in Porter County, 28 miles southeast of Chicago Harbor. The project consists of a north breakwater (4,630 feet of rubblemound structure), a west breakwater (1,200 feet of rubblemound structure), an approach channel (400 feet wide and 30 feet deep), Outer Harbor Basin (28 feet deep), and East and West Harbor Arms (each 27 feet deep and 620 feet wide).

FISCAL YEAR 2016 ALLOCATION: \$1,834,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$191,070 – Funds were used for routine harbor operations, navigation channel and structures' inspections, safety signage, and other management responsibilities.
- b. \$1,642,410 – Funds were used to remove 86,000 cubic yards (CY) of sediment accumulated within the approach channel area.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$3,034,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provided for: regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to agencies; stakeholders and primary dredging of the approach channel of a medium use commercial deep draft port, to restore full functional length, width and depth; placement of riprap within certain Federal Channel areas to control erosion from vessel prop wash and protect dock walls from scour that can lead to structural failure.

BUDGETED AMOUNT FOR FY 2018: M: \$3,446,000 O: \$203,000 T: \$3,649,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,649,000 Total

- a. \$203,000 – Funds will be used for routine harbor operations, navigation channel and structures' inspections, safety signage, and other management responsibilities.
- b. \$2,178,000 – Funds will be used to dredge approximately 90,000 cubic yards within the approach channel area.
- c. \$1,268,000 – Funds will be used for Channel Scour Hole repairs by USACE marine plant (place large riprap size stone in channel bottom of Harbor Arms).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Severe shoaling has developed along the ArcelorMittal shoreline revetment east of the approach channel. 86,000 CY of sand naturally moves to the west into the Federal channel limits

Division: Great Lakes and Ohio River

District: Chicago

Burns Waterway Harbor, IN

annually. These conditions narrow the harbor approach channel and hinder commercial vessels' ability to make the turn into the harbor, especially during adverse wind conditions. Safe port entry has necessitated annual dredging in this area during FY 2016, and 2017. Pending the conditions observed during 2018, the annual approach channel dredging could potentially be reduced and performed every other year instead of annually, while still ensuring a safe and reliable port for commercial users.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$20,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cagles Mill Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cagles Mill Lake lies in Owen and Putnam Counties in south-central Indiana near Poland, midway between Indianapolis and Terre Haute. The dam is located on Mill Creek, 2.8 miles above its confluence with Big Walnut Creek, forming the Eel River. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The structure is 150 feet high and 900 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,347,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding provided Phase II completion of control hoist replacement work initiated in FY 2014. All other project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,104,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds provide for routine O&M for each business line plus boundary surveying and rectification (\$30,000).

BUDGETED AMOUNT FOR FY 2018: M: \$246,000 O: \$843,000 T: \$1,089,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$964,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$27,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$98,000 – Funding provides routine O&M for environmental stewardship. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$5,174,000 and total \$325,981,000 since 1953. FY 2012 recreation visits were 541,572 and FY 2012 visitor expenditures were estimated to be \$12,290,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$57,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cecil M. Harden Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cecil M. Harden Lake is located in west-central Indiana about 50 miles west of Indianapolis and lies in Parke and Putnam Counties near Ferndale. The dam is located on Big Raccoon Creek approximately 33 miles upstream of its confluence with the Wabash River. The dam is constructed from rolled earth with gate controlled outlet works and uncontrolled open spillway and is 119 feet high and 1,860 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,431,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding provided for Master Plan revisions to bring the project's plan in to compliance. All other project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,180,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operation and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$220,000 O: \$827,000 T: \$1,047,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$955,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Dam safety programs and sustainability activities are also supported with these funds.

RC: \$33,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$59,000 – Funding provides for routine performance of environmental stewardship. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: NA

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$2,852,000 and total \$159,717,000 since 1960. FY 2012 recreation visits were 1,047,411 and FY 2012 visitor expenditures were estimated to be \$22,004,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$50,000. There was an additional \$48,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Indiana Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1910, 1913, 1919, 1922, 1930, 1935, 1937 and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Indiana Harbor is a high-use, deep-draft harbor located in northwestern Indiana, on the southwest shore of Lake Michigan in Lake County, 19 miles southeast of Chicago Harbor. The project consists of a north breakwater (1,120 feet of rubblemound structure); an easterly breakwater (2,524 feet of rubblemound structure); an approach channel (29-foot deep and 800-foot wide); an anchorage and maneuver basin (28-foot deep); a harbor entrance (27-foot deep and 280-foot wide); and a main canal (22-foot deep).

FISCAL YEAR 2016 ALLOCATION: \$11,226,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were executed as follows:

- a. \$189,000 – Funds were used for routine harbor operation and maintenance (O&M), navigation channel and structures' inspections, safety signage, and other management actions.
- b. \$1,797,000 – Funds were used for repairs to stabilize the east navigation structure, which has lost 30% of its crown and its cross section on the lake side.
- c. \$4,042,000 – Funds were used for to remove 100,000 cubic yards (CY) of Non-TSCA sediment, restoring 3 to 4 feet of depth loss in the Reach 4, 5, and 7 (turning basin)
- d. \$4,613,000 – Funds were used for continual air-quality monitoring, analysis, and public reporting, DMDF site security, and groundwater pumping and treatment.
- e. \$584,000 – Funds were used for confined disposal facility (CDF) site maintenance, primarily erosion control monitoring and repairs to dikes to assure stability.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$11,795,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for: continual air-quality monitoring, analysis, and public reporting; to remove 150,000 cubic yards (CY) of sediment and restore 3-4' of depth loss in Reaches 1 (entrance) and 4 (turning basin); repair east navigation structure, which has lost 30% of its crown and its cross section on the lake side; maintenance associated with CDF site features, primarily erosion control monitoring and repairs to dikes to assure stability; regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to agencies, stakeholders; engineering and design to raise center dike by 3 feet to match elevation of perimeter dikes; dam safety and asset management programs to track high-risk/ consequence assets.

BUDGETED AMOUNT FOR FY 2018: M: \$7,037,000 O: \$4,527,000 T: \$11,564,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$11,564,000 total

- a. \$201,000 – Funds will be used for routine harbor operation and maintenance (O&M), navigation channel and structures' inspections, safety signage, and other management actions.
- b. \$4,326,000 – Funds will be used for continual air-quality monitoring, analysis, and public reporting, CDF site O&M and security, and groundwater pumping and treatment.
- c. \$622,000 – Funds will be used for all maintenance associated with DMDF site features and roadways, primarily erosion control monitoring/repairs to the perimeter dikes to ensure stability.
- d. \$840,000 – Funds will be used to repair 200' of failing laid-up stone in East Breakwater via rubblemound encapsulation.
- e. \$5,575,000 – Funds will be used to remove 175,000 cubic yards (CY) of Non-TSCA sediment, restoring 3 to 4 feet of depth loss in all channel reaches within the port, and complete the backlog dredging effort. Future dredging removes new shoals, not legacy material

Division: Great Lakes and Ohio River

District: Chicago

Indiana Harbor, IN

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The removal of the highly-contaminated TSCA sediments was postponed into 2017 due to USEPA concerns regarding the capability of the DMDF to safely contain those materials. USACE is working through those issues with USEPA and IDEM. Dredging for navigation purposes has proceeded elsewhere within the harbor. The volume of sediment backlog has been reduced significantly, and all legacy dredging work will be completed by the end of 2018.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$54,000. There was an additional \$130,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Edward Roush Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: J. Edward Roush Lake is located on the Wabash River in northeastern Indiana about 20 miles southwest of Ft. Wayne and 80 miles northeast of Indianapolis. The dam site is at mile 411.4 of the Wabash River and lies in Huntington and Wells Counties, Indiana. The dam is rolled earthen-fill with a concrete center section. The dam contains the emergency spillway with three crest gates and has a Corps operated and maintained levee and pump plant that protects the City of Markle, Indiana approximately seven miles upstream from the dam. The dam is 91-feet high and 6,500-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,931,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M). Funding also provides for renovation of the emergency generator at the pump plant.

FISCAL YEAR 2017 ALLOCATION: \$3,693,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds provide for routine O&M for each business line during FY17 plus installation of rip rap (\$2,557,000).

BUDGETED AMOUNT FOR FY 2018: M: \$125,000 O: \$959,000 T: \$1,084,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$989,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$33,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$62,000 – Funding provides routine O&M for performance of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution. Also, Pest and invasive species management (\$10,000) and Section 106 activities (\$5,000).

WS: N/A

OTHER INFORMATION: In FY 2015 this project is estimated to have prevented \$6,818,000 in flood damages and totaled \$334,088,000 since 1967. FY 2012 recreation visits were 406,976 and FY 2012 visitor expenditures were estimated at \$8,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$47,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississinewa Lake, IN

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Mississinewa Lake is located in north central Indiana about seven miles southeast of Peru and 65 miles northeast of Indianapolis. The dam is at mile 7.1 on the Mississinewa River, a tributary of the Wabash River. The project lies in Miami, Wabash, and Grant counties. The dam is earthen-fill with gate controlled outlet works and uncontrolled open spillway. It is 140-feet high and 8,000-feet long. The project was authorized as a multi-purpose, flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2016 ALLOCATION: \$1,223,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,168,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operations and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$246,000 O: \$864,000 T: \$1,110,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018: All FY18 work within each business line will fund routine O&M.

N: N/A

FRM: \$987,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$37,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$86,000 – Funding provides for routine O&M for environmental stewardship activities, including natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution. Also, pest and invasive species management (\$5,000).

WS: N/A

OTHER INFORMATION: The project is estimated to have prevented \$10,674,000 in flood damages in FY 2015 and totaled \$523,007,000 since 1967. FY 2012 recreation visits were 751,624 and FY 2012 visitor expenditures were \$16,690,000.

11/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$33,000. There was an additional \$48,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Monroe Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Monroe Lake lies mostly in Monroe County with portions in Brown and Jackson Counties of south central Indiana. It combines the North, Middle, and South Forks of Salt Creek. The dam is located about 26 miles from Salt Creek's confluence with the East Fork of the White River and is about 10 miles south of Bloomington. The dam is earthen core and rock shell with gate-controlled outlet works and uncontrolled open spillway. The dam is 93-feet high and 1,350-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2016 ALLOCATION: \$1,214,000

DESCRIPTIONS OF WORK FOR FY 2016: In addition to routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,324,000

DESCRIPTIONS OF WORK FOR FY 2017: All FY 2017 project work will be routine O&M. There is a total of \$40,000 for sustainability work on this project to include water and electric efficiency upgrades.

BUDGETED AMOUNT FOR FY 2018: M: \$270,000 O: \$874,000 T: \$1,144,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$946,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$34,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$156,000 – Funding provides for routine O&M of environmental stewardship activities

WS: \$8,000 – Funding provides for performance of annual activities required to support management of water supply contracts, and addresses local and congressional concerns.

OTHER INFORMATION: The project is estimated to have prevented \$1,839,000 in flood damages in FY 2015 and \$93,793,000 since 1965. FY 2012 recreation visits were 967,716 and FY 2012 visitor expenditures were estimated at \$21,500,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$50,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Patoka Lake, IN

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298) managed under P.L. 89-72

LOCATION AND DESCRIPTION: Patoka Lake is located 118.3 miles above the mouth of the Patoka River about 13 miles northeast of Jasper and 95 miles south of Indianapolis in southern Indiana. The lake lies in portions of Dubois, Orange, and Crawford counties in Indiana. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The dam is 84 feet high and 1,550 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,210,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,136,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operation and maintenance. There is a total of \$24,000 for sustainability work on this project to include electric efficiency upgrades and energy saving measures.

BUDGETED AMOUNT FOR FY 2018: M: \$218,000 O: \$935,000 T: \$1,153,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,021,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$53,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$71,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution. Also provides for development of cultural resource data (\$5,000), site monitoring and protection (\$5,000), and Section 106 Activities (\$15,000).

WS: \$8,000 – Funding provides for routine O&M of water supply and addresses local and congressional concerns.

OTHER INFORMATION: The project is estimated to have prevented \$5,522,000 in flood damages in FY 2015 and total \$209,821,000 since 1978. FY 2012 recreation visits were 604,414, and FY 2012 estimated visitor expenditures were \$12,950,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$59,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Louisville

Patoka Lake, IN

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Salamonie Lake, IN

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Salamonie Lake is located 34 miles southwest of Ft. Wayne in Wabash and Huntington Counties of north-central Indiana. The dam is at mile 3.1 on the Salamonie River, a tributary of the Wabash River. The dam is earthen-fill with gate-controlled outlet works and uncontrolled open spillway. It is 133-feet high and 6,100 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,143,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,253,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operation and maintenance. There is a total of \$120,000 for sustainability work on this project to include water efficiencies upgrades.

BUDGETED AMOUNT FOR FY 2018: M: \$244,000 O: \$847,000 T: \$1,091,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$976,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$34,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$81,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented \$8,790,000 in flood damages in FY 2015 and total \$430,719,000 since 1967. FY 2012 recreation visits were 487,650 and estimated FY 2012 visitor expenditures were \$10,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$53,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

IOWA

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Coralville Lake, IA

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located on the Iowa River, approximately 14 miles north of Iowa City, Iowa, County of Johnson. Coralville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 4,900 acres and the flood control pool is 24,800 acres with 475,000 acre-feet of storage.

FISCAL YEAR 2016 ALLOCATION: \$4,177,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to continue the Master Plan update, repair roads and roofs, and conduct routine operation and maintenance of flood reduction, environmental and recreation infrastructure. Funds were also used for the purchase and installation of the plug-in electric vehicle charging station in order to support the goals and objectives in Executive Order 13693.

FISCAL YEAR 2017 ALLOCATION: \$4,326,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to continue the Master Plan update, repair paving, and conduct routine operation and maintenance of flood reduction, environmental and recreation infrastructure.

BUDGETED AMOUNT FOR FY 2018: M: \$6,818,000 O: \$3,097,000 T: \$9,915,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$7,629,000 – Funds will be used for routine operation and maintenance of the flood control work and related infrastructure. In addition, funds will provide for repair of the control tower concrete and sill plate (\$5,000,000).

RC: \$1,688,000 – Funds will be used for routine operation and maintenance for recreation. Non-routine funds of \$385,000 will be used to replace water heaters, shower heads and water lines.

H: N/A

EN: \$598,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Cumulative damages prevented are more than \$550 million. The project includes 24,591 acres of fee title lands and 11 recreation area sites. FY 2015 recreation fee receipts and lease revenues were \$664,000. Population at risk is 173,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$56,000. There was an additional \$9,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Missouri River, Sioux City to Mouth, IA, NE, KS & MO

AUTHORIZATION: Flood Control Acts of 1912 (P.L. 62-241), 1917 (P.L. 64-367), 1925 (P.L. 68-585), 1927 (P.L. 70-560), 1930 (P.L. 73-67), 1935 (P.L. 73-409), 1945 (P.L. 79-14), 1970 (P.L. 91-611)

LOCATION AND DESCRIPTION: The Missouri River Bank Stabilization and Navigation Project (BSNP) extends from the mouth at St. Louis, Missouri, to River Mile 735 at Sioux City, Iowa. It is an open-river-type waterway with sinuous bend-ways without locks or dams that utilizes river flows to establish and provide shallow-draft, low-use commercial transportation through a system of more than 8,000 dike and revetment structures, while minimizing bank erosion and channel meandering. The Project is split between Kansas City and Omaha Districts at River Mile 498 at Rulo, Nebraska.

FISCAL YEAR 2016 ALLOCATION: \$9,667,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the authorized constructed requirements to provide system reliability required by stakeholders.

FISCAL YEAR 2017 ALLOCATION: \$9,689,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the authorized constructed requirements to provide system reliability required by stakeholders. Non-routine activities include \$88,000 management of Missouri River natural resources.

BUDGETED AMOUNT FOR FY 2018: M: \$5,300,000 O: \$3,664,000 T: \$8,964,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,838,000 – Funding provides for operation and maintenance for navigation. Additional funds are provided for real estate management for the Missouri River banks stabilization project (\$90,000).

FRM: N/A

RC: N/A

H: N/A

EN: \$126,000 – Funds provides for operation and maintenance related to environmental stewardship.

WS: N/A

OTHER INFORMATION: The Missouri River, a major tributary of the Mississippi River, has a long history of regional significance. The Project estimated tonnage transported (based on local boat report and industry number for 2016) is 6.7 million tons; has 38 boat ramps, 20 city river fronts and/or marinas; and supports recreational boating and fishing along the river. Multiple public and industrial water supplies draw water from the Missouri River including, Kansas City, St. Joseph, Laton Power Plant and the Callaway Nuclear Power Plants. Furnished potable water exceeds 1.0 million gallons per hour. The Bank Stabilization and Navigation structures support all the authorized purposes of the project by providing public and commercial water supplies, recreation, irrigation, railroads, highways, agriculture and flood protection levees, and flood walls.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$475,000. There was an additional \$8,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Northwestern District: Kansas City and Omaha Missouri River, Sioux City to Mouth,
IA, NE, KS, MO

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern

District: Kansas City and Omaha

Missouri River, Sioux City to Mouth,
IA, NE, KS, MO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Missouri River Fish and Wildlife Recovery, IA, KS, MO, MT, NE, ND, SD

AUTHORIZATION: Water Resource and Development Act (WRDA) 1986 & 1999 and WRDA 2007, Fish and Wildlife Coordination Act of 1958 (P.L. 85-624), and Endangered Species Act of 1973 (P.L. 93-205)

LOCATION AND DESCRIPTION: The Missouri River Recovery Program (MRRP) is a mitigation project that provides habitat features on numerous land tracts to restore native vegetation and includes terrestrial and aquatic features, chutes, and riparian zone on the lower 800 miles of the Missouri River extending from the mouth at St. Louis, Missouri, to River Mile 735 located at Sioux City, Iowa. The project is split between Kansas City and Omaha Districts at River Mile 498 located at Rulo, Nebraska.

FISCAL YEAR 2016 ALLOCATION: \$5,382,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the Missouri River Recovery Program mitigation features and structures.

FISCAL YEAR 2017 ALLOCATION: \$2,810,000

DESCRIPTION OF WORK FOR FY 2017: Funds will be used for routine operation and maintenance of the Missouri River Recovery Program mitigation features and structures.

BUDGETED AMOUNT FOR FY 2018: M: \$741,000 O: \$1,806,000 T: \$2,547,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,547,000 – Funding provides for operation and maintenance for navigation.

FRM: N/A

RC: N/A.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Currently there have been 28 terrestrial sites and 40 shallow water habitat restoration sites completed and transitioned to operation and maintenance. In addition to mitigating the adverse environmental effects of the Missouri River Bank Stabilization and Navigation Project (BSNP), Missouri River Recovery Program mitigation project lands provide areas to develop habitat that assists in the recovery of the Federally listed endangered pallid sturgeon and ensures compliance with the U.S. Fish and Wildlife's Biological Opinion on the operation and maintenance of the Missouri River mainstem reservoir system, BSNP, and the Kansas River reservoir system. Mitigation sites also provide extensive benefit to native fish and wildlife populations and opportunities for public use to include hunting, fishing, hiking and wildlife viewing. This work is operation and maintenance of the Missouri River Fish and Wildlife Recovery efforts and is not to negatively impact the Missouri River navigation channel or authorized purposes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$35,000. There was an additional \$6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern District: Kansas City and Omaha Missouri River Fish and Wildlife Recovery,
IA, KS, MO, MT, NE, ND, SD

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rathbun Lake, IA

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located on the Chariton River, near Centerville, Iowa, Counties of Wayne, Lucas, Monroe and Appanoose. The project includes an earth-fill dam 10,600 feet long with a crest about 102 feet above the original streambed. The dam has gated outlet works and an uncontrolled chute-type spillway, and total reservoir storage capacity of 570,500 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$2,884,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,484,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities and non-routine work for sustainability installation of light-emitting diode (LED) lights (\$70,000).

BUDGETED AMOUNT FOR FY 2018: M: \$772,000 O: \$2,016,000 T: \$2,788,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,592,000 – Funding provides for operation and maintenance for flood risk management. A total of \$335,000 will be used for (\$130,000) the replacement of corrugated metal work and (\$205,000) for repair of service gate work.

RC: \$980,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$206,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$10,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1968 has totaled \$267.2 million with an average annual economic benefit of \$11.1 million. The project encompasses 33,909 land acres, 11,013 water acres with 155 miles of shoreline, and provides 2.5 billion gallons of water annually to approximately 80,000 customers of the Rathbun Regional Water Association (one of the largest rural water systems in the Country). It provides recreational programs, activities, and facilities that support approximately 683,000 visits per year, generates approximately \$20.7 million in revenue, and sustains 243 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$148,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern

District: Kansas City

Rathbun Lake, IA

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Red Rock Dam and Lake Red Rock, IA

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Red Rock Dam is located on the Des Moines River, approximately 40 miles southeast of Des Moines, Iowa, County of Marion. Lake Red Rock is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 15,250 acres which makes it Iowa's largest lake and the storage volume is 1,436,000 acre-feet at flood pool level.

FISCAL YEAR 2016 ALLOCATION: \$4,678,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform road and roof repairs, and conduct routine operation and maintenance of flood reduction, environmental and recreation infrastructure.

FISCAL YEAR 2017 ALLOCATION: \$4,711,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of flood reduction, environmental and recreation infrastructure.

BUDGETED AMOUNT FOR FY 2018: M: \$2,822,000 O: \$4,273,000 T: \$7,095,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$5,208,000 – Funds will be used for routine operation and maintenance of the flood control works and related infrastructure. Non-routine activities include \$1,600,000 to mitigate effects of a scour hole in the Des Moines River adjacent to the SE Des Moines Levee and \$425,000 to protect the foundation of the southeast Des Moines Pump Station.

RC: \$1,368,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$519,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Population at risk is 136,000 with \$1.2 billion cumulative damages prevented. The project includes 50,300 acres of fee title lands, and 11 recreation area sites. FY 2015 recreation fee receipts and lease revenues were \$567,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Saylorville Lake, Iowa

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: The dam is located 11 miles northwest of Des Moines, Iowa, on the Des Moines River, County of Polk. Saylorville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 5,950 acres with a storage volume of 586,000 acre-feet at flood pool level.

FISCAL YEAR 2016 ALLOCATION: \$4,742,000

DESCRIPTIONS OF WORK FOR FY 2016: : FY 2016 funds were used to continue diversion dam repairs, complete plans and specifications for the Barrier Dam Pumping Station Modification, perform road and roof repairs, and conduct routine operation and maintenance of flood reduction, environmental and recreation infrastructure. Funds were also used for the purchase and installation of the plug-in electric vehicle charging station in order to support the goals and objectives in Executive Order 13693.

FISCAL YEAR 2017 ALLOCATION: \$5,526,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to continue diversion dam repairs, perform road and roof repairs, and conduct routine operation and maintenance of flood reduction, environmental and recreation infrastructure.

BUDGETED AMOUNT FOR FY 2018: M: \$14,914,000 O: \$4,309,000 T: \$19,223,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$16,471,000 – Funds will be used for routine operation and maintenance for flood control. Non-routine activities include \$13,100,000 to construct a supplemental pump station at the Big Creek Remedial Works.

RC: \$1,989,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$699,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$64,000 – Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: Cumulative damages prevented are estimated at \$357 million. The project includes 25,515 acres of fee title lands and 13 recreation areas. FY 2014 recreation fee receipts and lease revenues were \$603,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$286,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

KANSAS

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clinton Lake, KS

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam 9,250 feet long with a crest 114 feet above the original streambed. The reservoir is located on the Wakarusa River, one mile west of Lawrence, Kansas, County of Douglas. Project purposes include flood protection, water supply, recreation, water quality, and fish and wildlife management to the State of Kansas and the region.

FISCAL YEAR 2016 ALLOCATION: \$2,417,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,953,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities and non-routine total of \$345,000 to include zebra mussel protection (\$60,000), land classification updates (\$150,000), and two sustainability packages to implement water-saving improvements and solar energy savings at the administrative sites and maintenance buildings of project (\$75,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,323,000 O: \$2,339,000 T: \$3,662,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,864,000 – Funding provides for operation and maintenance for flood risk management. A total of \$175,000 will be used for a periodic inspection work.

RC: \$1,550,000 – Funding provides for operation and maintenance for recreation facilities on Clinton Lake, Kansas Project including campgrounds, day use parks, fishing decks and boat ramp facilities. A total of \$658,000 will be used for sustainability work to include a rural water connection.

H: N/A

EN: \$240,000 – Funding provides for operation and maintenance for environmental stewardship and to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests or Other activities including intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$8,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1977 has totaled over \$1.6 billion with an average annual economic benefit of \$13.9 million. The project encompasses 22,245 land acres, and 7,309 water acres providing a reservoir total storage capacity of 411,200 acre-feet of water with 85 miles of shoreline, and supplies 3.1 billion gallons of water per year to City of Lawrence and Rural Water Districts in the State of Kansas. It provides recreational programs, activities, and facilities that support approximately 1.6 million visits per year, generates approximately \$45.4 million in revenue, and sustains 513 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Council Grove Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Council Grove Lake is located 1.5 miles northwest of Council Grove in Morris County, Kansas on the Grand (Neosho) River at river mile 449.5. This is a multi-purpose project authorized for flood control, water supply, water quality control, and recreation. The project has a 6,500 foot long earth fill embankment with an uncontrolled spillway. At conservation pool depth, the lake covers 3259 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,487,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities of the flood control structure, project recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,535,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$357,000 O: \$1,386,000 T: \$1,743,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$912,000 – Funding will be used for routine O&M and collection of dam safety data. A new tilt deck trailer will be purchased to replace aging equipment that supports daily routine maintenance activities.

RC: \$600,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$221,000 – Funding will be used for routine environmental compliance activities.

WS: \$10,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1964, Council Grove Lake is estimated to have prevented \$196 million in cumulative flood damages. Over 907,000 recreation visits with an estimated local economic impact of \$13 million occurred at Council Grove Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$28,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: El Dorado Lake, KS

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: El Dorado Lake is two miles northeast of the town of El Dorado in Butler County, Kansas. It is located at river mile 114.7 on the Walnut River, a tributary of the Arkansas River. This is a multi-purpose project authorized for flood control, water supply, water quality control, and recreation. The project consists of a 20,850 foot long earth embankment with a spillway. At the conservation pool depth, the lake covers 7,997 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,465,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, recreation areas, environmental compliance activities, and management of water storage agreements. Non-routine work at the project consisted of a contract to repair the service gates (\$2,000,000).

FISCAL YEAR 2017 ALLOCATION: \$801,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$438,000 O: \$543,000 T: \$981,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$831,000 – Funding will be used for routine O&M and collection of dam safety data. Non-routine activities include replacing the electric line to the gate tower (\$125,000).

RC: \$30,000 – Funding will be used for routine O&M.

H: N/A

EN: \$115,000 – Funding will be used for routine O&M for environmental compliance activities, cultural resources water quality monitoring, natural resources management, invasive species control, and compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, tracking water storage contract billing and payments, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1981, El Dorado Lake is estimated to have prevented \$323 million in cumulative flood damages. Over 866,000 recreation visits with an estimated local economic impact of \$8.6 million took place at El Dorado Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$571,000. There was an additional \$58,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elk City Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Elk City Lake is 7 miles east of the town of Elk City in Montgomery County, Kansas located on the Elk River at river mile 8.7. This is a multi-purpose project authorized for flood control, water supply, water quality, recreation, and environmental stewardship. The project consists of a 4,840 foot earth embankment with an uncontrolled spillway, 16 foot conduit, and stilling basin. The outlet works are located near the right abutment and are controlled by two 7 by 16 foot hoist-operated tractor gates. At conservation pool depth the lake covers 4,118 acres.

FISCAL YEAR 2016 ALLOCATION: \$941,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$970,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities. There is a total of \$10,000 for sustainability light-emitting diode (LED) solar lighting at restroom facilities to include solar roof panels

BUDGETED AMOUNT FOR FY 2018: M: \$570,000 O: \$977,000 T: \$1,547,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,140,000 – Funding will be used for routine O&M on structures that reduce flood risk; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data. Non-routine activities include repairing the embankment (\$325,000).

RC: \$192,000 – Funding will be used for routine O&M activities for recreation.

H: N/A

EN: \$205,000 – Funding will be used for routine environmental compliance activities, including monitoring of threatened and endangered species, protection of cultural resources, water quality monitoring, and National Environmental Policy Act (NEPA) compliance activities.

WS: \$10,000 – Funding will be used for routine monitoring of water usage; management of current water storage agreements; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: Since construction in 1966, Elk City Lake is estimated to have prevented \$534,000,000 in cumulative flood damages. Over 171,000 recreation visits with an estimated local economic impact of \$1,739,000 occurred at Elk City Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fall River Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Fall River Lake is four miles northwest of the town of Fall River in Greenwood County, Kansas located on the Fall River at river mile 54.2. This is a multi-purpose project authorized for flood control, water quality, fish and wildlife, and supplemental water supply. The project consists of a 5,545 foot long earth embankment with a gate-controlled, concrete, gravity ogee weir and 8 tainter gates. At conservation pool depth the lake covers 2,350 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,125,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 funds were used for routine operations and maintenance (O&M) activities on the flood control structure, recreation areas, and environmental compliance activities.

FISCAL YEAR 2017 ALLOCATION: \$1,581,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities and to update the project Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$232,000 O: \$1,387,000 T: \$1,619,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$989,000 – Funding will be used for routine O&M of structures that reduce flood risk; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

RC: \$277,000 – Funding will be used for routine O&M activities related to recreation, including ranger patrols; mowing and other service contracts; utilities; and break-down maintenance.

H: N/A

EN: \$353,000 – Funding will be used for routine environmental compliance activities, including monitoring of threatened and endangered species, protection of cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance activities.

WS: N/A

OTHER INFORMATION: Since construction in 1949, Fall River Lake is estimated to have prevented \$537,000,000 in cumulative flood damages. Over 149,000 recreation visits with an estimated local economic impact of \$1,495,000 occurred at Fall River Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$99,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hillsdale Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill embankment about 11,600 feet long (including approximately 3,300 feet of dike section) with a crest 100 feet above the original streambed, and reservoir storage capacity of 163,900 acre-feet. It is located approximately twelve miles above the mouth of Big Bull Creek, a tributary of the Marais des Cygnes River and about five miles north of Paola, Kansas, County of Miami.

FISCAL YEAR 2016 ALLOCATION: \$966,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$891,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$220,000 O: \$856,000 T: \$1,076,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$0 – N/A

FRM: \$900,000 – Funding provides for operation and maintenance for flood risk management. Additional funds provide for repairing and replacing inclinometers (\$60,000) and upper lateral support of the emergency gate storage system modification (\$30,000).

RC: \$80,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$85,000 – Funding provides for operation and maintenance for environmental stewardship and to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations. Non-routine activities include pest and invasive species management (\$13,000).

WS: \$11,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1981 has totaled \$51.3 million with an average annual economic benefit of \$7.8 million. The project encompasses 13,103 land acres, 4,616 water acres with 51 miles of shoreline, and the reservoir supplies 1.8 billion gallons of water annually to eleven rural water districts in the region. It provides recreational programs, activities, and facilities that support approximately 171,000 visits per year, generates approximately \$6.0 million in revenue, and sustains 61 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Redmond Dam and Reservoir, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: John Redmond Dam and Reservoir is three miles northwest of the City of Burlington in Coffey County, Kansas. It is located on the Grand (Neosho) River at river mile 343.7. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 21,790 foot long earth fill embankment and a gated ogee weir, concrete spillway with 14 tainter gates. At conservation pool depth the lake covers 8,084 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,875,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities. Non-routine maintenance consisted of awarding a contract to repair a tainter gate trunnion arm (\$1,925,000).

FISCAL YEAR 2017 ALLOCATION: \$1,565,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$347,000 O: \$1,543,000 T: \$1,890,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,099,000 – Funding will be used for routine O&M for flood risk management.

RC: \$313,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$468,000 – Funding will be used for routine environmental compliance activities.

WS: \$10,000 – Funding will be used for monitoring of water usage, management of current water storage agreements, renegotiation of expiring water supply agreements, and monitoring of water quality.

OTHER INFORMATION: Since construction in 1964, John Redmond Dam and Reservoir is estimated to have prevented \$841 million in cumulative flood damages. Over 127,000 recreation visits with an estimated local economic impact of \$1.4 million occurred at John Redmond Dam and Reservoir in FY 2012. The State of Kansas is working under an approved Section 408 permit to mechanically dredge the reservoir to increase the current water supply for use at the nearby Wolf Creek nuclear plant.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$509,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kanopolis Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam with a crest 121 feet above the original streambed, having a total length of 15,360 feet, including dike sections on the left and right abutments; and reservoir storage capacity of 413,500 acre-feet. The project is located at mile 184 on the Smoky Hill River and eleven miles northwest of Marquette, Kansas, County of Ellsworth.

FISCAL YEAR 2016 ALLOCATION: \$2,886,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of the dam and other facilities, and non-routine \$200,000 design (Phase 1), \$900,000 replacement of the emergency gate (Phase 2), and sustainability work of \$40,000 for the replacement of windows in the administrative building.

FISCAL YEAR 2017 ALLOCATION: \$4,968,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities and for the non-routine repair/replacement of the service sluice gates (\$3.15M), habitat/natural resource management (\$50,000), and establishment of pollinator-friendly habitat (\$15,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,885,000 O: \$1,300,000 T: \$3,185,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,471,000 – Funding provides for operation and maintenance for flood risk management.

RC: \$515,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$191,000 – Funding provides for operation and maintenance for environmental stewardship and to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$8,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1947 has totaled \$2.4 billion with an average annual economic benefit of \$37.0 million. The project encompasses 21,121 land acres, 3,406 water acres with 41 miles of shoreline, and the reservoir supplies 225.0 million gallons of water annually. It provides recreational programs, activities, and facilities that support approximately 213,000 visits per year, generates approximately \$6.5 million in revenue, and sustains 73 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$126,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Marion Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Marion Lake is three miles northwest of the City of Marion in Marion County, Kansas, and located on the Cottonwood River at river mile 126.7. This is a multi-purpose project authorized for flood control, water supply, water quality, and recreation. The project consists of an 8,375 foot long rolled earth fill embankment with a gate-controlled, concrete gravity ogee weir spillway containing three tainter gates. At conservation pool depth the lake covers 6,210 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,175,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, recreation areas, environmental compliance activities, and management of water storage agreements. Non-routine maintenance at the project included initiating repairs to the spillway bridge superstructure (\$1,000,000).

FISCAL YEAR 2017 ALLOCATION: \$4,482,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities and to complete repairs to the spillway bridge superstructure.

BUDGETED AMOUNT FOR FY 2018: M: \$500,000 O: \$1,751,000 T: \$2,251,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,228,000 – Funding will be used for routine O&M activities.

RC: \$830,000 – Funding will be used for routine O&M activities.

H: N/A

EN: \$183,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control and National Environmental Policy Act (NEPA) compliance.

WS: \$10,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1968, Marion Lake is estimated to have prevented \$391 million in cumulative flood damages. Over 66,000 recreation visits with an estimated local economic impact of \$1 million occurred at Marion Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$981,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Melvern Lake, KS

AUTHORIZATION: Flood Control Acts of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located eight miles south of Lyndon, Kansas, County of Osage County. An earth-filled dam 9,700 feet long with a crest of 119 feet, the project includes a 6,930 acre lake with 17,248 acres of land surrounding, and reservoir with a storage capacity of 358,600 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$2,420,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,490,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities. There is a total of \$63,000 for sustainability work on this project to include conversion to solar-powered light-emitting diode (LED) light system.

BUDGETED AMOUNT FOR FY 2018: M: \$625,000 O: \$2,089,000 T: \$2,714,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,356,000 – Funding provides for operation and maintenance for flood risk management.

RC: \$838,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$212,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$308,000 – Funding provides for operations for water supply. Non-routine activities include a reallocation study (\$300,000).

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1972 has totaled \$344.1 million with an average annual economic benefit of \$11.4 million. The project encompasses 23,366 land acres, 6,930 water acres with 101 miles of shoreline, and the reservoir supplies 275.0 million gallons of water annually to two water districts in the region. It provides recreational programs, activities, and facilities that support approximately 358,000 visits per year, generates approximately \$14.0 million in revenue, and sustains 155 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Milford Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: This is a multi-purpose project located on the Republican River about ten miles above the confluence of the Republican and Smoky Hill Rivers, which form the Kansas River; near Fort Riley, Kansas, and about four miles northwest of Junction City, Kansas, Counties of Geary, Dickinson, Clay, and Riley. An earth-fill dam 6,300 feet long with a crest 143 feet above the original streambed, and reservoir storage capacity of 1,131,000 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$2,372,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,549,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$478,000 O: \$1,889,000 T: \$2,367,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,203,000 – Funding provides for operation and maintenance for flood risk management. A total of \$104,000 will be used for relief well and collector ditch rehabilitation work.

RC: \$1,000,000 – Funding provides for operation and maintenance for operation and maintenance of recreation.

H: N/A

EN: \$150,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$14,000 – Funding provides for operation and maintenance for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1965 has totaled \$2.1 billion with an average annual economic benefit of \$55.5 million. The project encompasses 44,231 land acres, and 15,709 water acres with 163 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 1.0 million visits per year, generates approximately \$32.2 million in revenue, and sustains 301 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$18,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pearson-Skubitz Big Hill Lake, KS

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pearson-Skubitz Big Hill Lake is 4.5 miles east of the City of Cherryvale in Labette County, Kansas. It is located at river mile 33.3 on Big Hill Creek, a tributary of the Verdigris River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a rolled earth fill embankment that is 3,902 feet long with a broad crested weir and two drop inlet structures. At conservation pool depth the lake covers 1,240 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,556,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,392,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam and other facilities. Funding of \$16,000 will be used to replace overhead street lights with modern low energy light-emitting diode (LED) lighting in recreation areas.

BUDGETED AMOUNT FOR FY 2018: M: \$2,590,000 O: \$1,209,000 T: \$3,799,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,974,000 – Funding will be used for routine O&M of flood risk management. A total of \$2,300,000 is planned for use in repairing the service gates and associated equipment.

RC: \$710,000 – Funding will be used for routine O&M activities related to recreation.

H: N/A

EN: \$110,000 – Funding will be used for routine environmental compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1981, Pearson-Skubitz Big Hill Lake is estimated to have prevented \$70 million in cumulative flood damages. Over 187,000 recreation visits with an estimated local economic impact of \$2 million occurred at Pearson-Skubitz Big Hill Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$155,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Perry Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: This multipurpose project is located on the Delaware River, two miles north of Perry, Kansas, County of Jefferson. The project includes an earth-fill dam 7,750 feet long with a crest 121 feet above the original streambed, and reservoir storage capacity of 715,500 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$2,479,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,845,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities. There is a total of \$200,000 for sustainability work on this project to include water efficiency upgrades.

BUDGETED AMOUNT FOR FY 2018: M: \$1,121,000 O: \$2,106,000 T: \$3,227,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,679,000 – Funding provides for operation and maintenance for flood risk management. A total of \$140,000 will be used for (\$80,000) sustainability work to install insulation, windows and doors and (\$60,000) for provide for a security risk analysis. Additional funds are provided for Dam Safety – abandon horizontal displacement gages (\$50,000), installation of five piezometers (\$125,000), re-grade and placement of riprap on downstream outlet (\$105,000), and removal of vegetation/trees on upstream and downstream right abutment (\$52,000).

RC: \$1,290,000 – Funding provides for operation and maintenance for recreation. A total of \$150,000 will be used for replacement of a restroom/shower house.

H: N/A

EN: \$250,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$8,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1967 has totaled \$7.8 billion with an average annual economic benefit of \$65.9 million. The project encompasses 39,338 land acres, 11,146 water acres with 160 miles of shoreline, and provides critical support to the Missouri River during times of flooding and navigation flow support during periods of drought. It provides recreational programs, activities, and facilities that support approximately 812,000 visits per year, generates approximately \$27.8 million in revenue, and sustains 303 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$31,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pomona Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located eight miles northwest of Pomona, Kansas, and thirty-four miles upstream from Ottawa, Kansas, County of Osage. An earth-filled dam 7,750 feet long with a crest 119 feet above the original streambed, and a reservoir storage capacity of 239,500 acre-feet. The project includes a 3,865 acre lake with 8,445 acres of land surrounding.

FISCAL YEAR 2016 ALLOCATION: \$2,236,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$2,480,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,380,000 O: \$1,491,000 T: \$2,871,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,818,000 – Funding provides for operation and maintenance for flood risk management. A total of \$10,000 will be used to repair riprap and bedding in outlet channel. Additional funds are provided to repaint the service bridge (\$500,000).

RC: \$845,000 – Funding provides for operation and maintenance for recreation. A total of \$95,000 will be used for a facilities operation efficiency report.

H: N/A

EN: \$191,000 - Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$17,000 - Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1964 has totaled \$357.8 million with an average annual economic benefit of \$15.8 million. The project encompasses 10,500 land acres, 4,000 water acres with 52 miles of shoreline, and supplies 55.0 million gallons of water annually for supplemental downstream water quality for the State Water Assurance District. It provides recreational programs, activities, and facilities that supports approximately 524,000 visits per year, generates approximately \$18.9 million in revenue, and sustains 220 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern

District: Kansas City

Pomona Lake, KS

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Toronto Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Toronto Lake is four miles southeast of the town of Toronto in Woodson County, Kansas, and located on the Verdigris River at river mile 271.5. This is a multi-purpose project authorized for flood control, water supply, water quality, fish and wildlife, and recreation. The project consists of a rolled impervious and random earth fill embankment that is 4,712 feet long with a gate-controlled, concrete, gravity, ogee weir with eight 40 by 25 foot tainter gates. At conservation pool depth the lake covers 2,660 acres.

FISCAL YEAR 2016 ALLOCATION: \$717,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,191,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities and to update the project Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$153,000 O: \$773,000 T: \$926,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$799,000 - Funding will be used for routine O&M activities and collection of dam safety data.

RC: \$23,000 - Funding will be used for routine O&M of recreation facilities.

H: N/A

EN: \$94,000 - Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance.

WS: \$10,000 - Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1960, Toronto Lake is estimated to have prevented \$558 million in cumulative flood damages. Over 111,000 recreation visits with an estimated local economic impact of \$1.1 million occurred at Toronto Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$26,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tuttle Creek Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-645), WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: This is a multi-purpose project is located at River Mile 10 on the Big Blue River, six miles North of Manhattan, Kansas, Counties of Riley and Pottawatomie. An earth and rock-fill dam 7,500 feet long with a crest 166 feet above the original streambed, gated outlet works, and gated concrete spillway; and a reservoir storage capacity of 2,141,300 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$3,471,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities and non-routine work for repairs to Gates 3 and 4 cracked wheels (\$600,000), and for the design of security improvements (\$100,000).

FISCAL YEAR 2017 ALLOCATION: \$11,464,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities; and non-routine work for continued repairs to Gates 3 and 4 cracked wheels (\$2,200,000), for the design of the spillway bridge deck replacement Phase 1 (\$200,000) and replacement of the spillway bridge deck, Phase 2 Construction (\$4,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,937,000 O: \$2,038,000 T: \$3,975,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,983,000 - Funding provides for operation and maintenance for flood risk management. A total of \$175,000 will be used for (\$105,000) for a hydraulic steel structure climbing inspection and (\$70,000) for relief well rejuvenation work. Additional funds are provided to repair concrete spalls and cracks at Piers 1,3,4,14 and seal cracks (\$130,000).

RC: \$520,000 - Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$458,000 - Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations. A total of \$297,000 will be used for (\$220,000) for a comprehensive master plan study and (\$77,000) for boundary surveying and inspection work.

WS: \$14,000 - Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1960 has totaled \$9.6 billion with an average annual economic benefit of \$120.2 million. The project encompasses 33,643 land acres, 12,361 water acres with 104 miles of shoreline, and provides low-flow supplementation to the Kansas and Big Blue Rivers; navigation supplementation on the Missouri River; and water quality and recreation to the State of Kansas and the region. It provides recreational programs, activities, and facilities that support approximately 736,000 visits per year, generates approximately \$22.7 million in revenue, and sustains 228 jobs. The project utilizes volunteers and

Division: Northwestern

District: Kansas City

Tuttle Creek Lake, KS

partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$487,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilson Lake, KS

AUTHORIZATION: Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This is a multi-purpose project and includes an earth-fill dam 5,600 feet long with a crest 172 feet above the original streambed, with reservoir storage capacity of 766,300 acre-feet. The Project is located on the Saline River, twenty miles East of Russell, Kansas, Counties of Russell and Lincoln.

FISCAL YEAR 2016 ALLOCATION: \$1,892,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$1,711,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$363,000 O: \$1,403,000 T: \$1,766,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,030,000 - Funding provides for operation and maintenance for flood risk management. A total of \$83,000 will be used for relief well rejuvenation work.

RC: \$550,000 - Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$186,000 - Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: N/A

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1965 has totaled \$2.2 billion with an average annual economic benefit of \$17.8 million. The project encompasses 21,796 land acres, and 9,209 water acres with 100 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 201,000 visits per year, generates approximately \$5.9 million in revenue, and sustains 67 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$50,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

KENTUCKY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barkley Dam and Lake Barkley, KY & TN

AUTHORIZATION: River and Harbor Act 1946 (P.L. 79-525), River and Harbor Act 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Barkley Dam and Lake Barkley is a high-use waterway located in southwestern Kentucky, approximately 26 miles east of Paducah, KY. The project consists of a 110-foot by 800-foot lock, earth and concrete gravity-type dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas. The project is the lower-most dam on the Cumberland River and is connected to Kentucky Lake on the Tennessee River via a canal.

FISCAL YEAR 2016 ALLOCATION: \$11,434,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project; dredging at Cumberland River Mile 104 (\$1,264,000); installation of lower miter gate diagonal turnbuckles and replacement of fill valve strut pins (\$600,000); and performance of an alternative energy audit (\$75,000).

FISCAL YEAR 2017 ALLOCATION: 11,404,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project; repairs to dam monoliths (\$100,000); and additional dredging at Cumberland River Mile 104 (\$1,237,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,617,000 O: \$8,630,000 T: \$12,247,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,508,000 – Funding provides for routine O&M for navigation. Additional funding is provided for replacement of electrical operating system for lock and emergency dam (\$2,100,000)

FRM: N/A

RC: \$1,643,000 – Funding provides for routine O&M for recreation.

H: \$3,288,000 – Funding provides for routine O&M for the hydroelectric plant.

EN: \$812,000 – Funding provides for routine O&M for environmental stewardship.

WS: \$25,000 – Funding provides for routine O&M for water supply.

OTHER INFORMATION: Barkley Lock processed 3,901,810 tons of waterborne commerce in 2015. Steady and reliable movement of coal and aggregate is vital to the Tennessee Valley Authority due to limited storage at their fossil fuel power plants. Shippers relying on Barkley Lock realize average annual transportation savings of more than \$49,000,000. The hydropower plant generates 690,000 megawatt-hours of energy annually, enough for 58,000 homes. The recreation facilities rank 20th of 422 among the Corps for recreation with 3,247,344 project visits in FY 2012, which is the year of record for visitation, with \$69,390,000 in trip spending. The project prevented \$175,459,000 in damages through FY 2015. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$1,971,000 shared between business lines as follows: HYD – 6%, NAV – 68%, and FRM – 26%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$8,000. There was an additional \$15,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barren River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Barren River Lake is located in south-central Kentucky approximately 95 miles south of Louisville and about 16 miles southwest of Glasgow. The dam site is at mile 79.2 on Barren River. The dam is rolled earth and rock-fill, 146 feet high and 3,970 feet long. The lake area lies in Allen and Barren Counties with a small portion located in Monroe County. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality. The project covers 10,000 acres at summer pool and 20,150 acres at the maximum flood control pool.

FISCAL YEAR 2016 ALLOCATION: \$2,963,000

DESCRIPTIONS OF WORK FOR FY 2016: The funding was used to install a replacement Piezometer. All other project work completed, by business line, during FY 2016 will be routine operation and maintenance.

FISCAL YEAR 2017 ALLOCATION: \$2,754,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operation and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$620,000 O: \$2,613,000 T: \$3,233,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,955,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Dam safety programs and activities are also supported with these funds.

RC: \$721,000 – Funding provides for routine O&M of day-use and overnight recreation facilities, and real estate functions to support recreation management by other lessees, agencies and partners.

H: N/A

EN: \$546,000 – Funding provides for performance of environmental stewardship activities which include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$11,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs.

OTHER INFORMATION: FY 2015 flood damages prevented were \$3,700,000 (\$192,383,000 cumulative since 1964). FY 2012 recreation visits were 1,397,714 and visitor expenditures were \$28,790,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$94,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Louisville

Barren River Lake, KY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Big Sandy Harbor, KY

AUTHORIZATION: River and Harbor Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Big Sandy Harbor is a high-use, shallow-draft harbor consisting of the lower 9 miles of the Big Sandy River, starting at its confluence with the Ohio River. The Big Sandy Harbor requires dredging in this portion of the Big Sandy River annually.

FISCAL YEAR 2016 ALLOCATION: \$1,885,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) dredging activities.

FISCAL YEAR 2017 ALLOCATION: \$1,908,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,865,000 O: \$0 T: \$1,865,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,865,000 – Funds will provide for routine O&M dredging for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The five-year average of commodities transported on this waterway exceeds 10,000,000 tons. This is a critical waterway for the region, primarily supporting energy related cargo.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$130,000. There was an additional \$0 of unobligated funds that are committed within in the Corps for scheduled ongoing requirements in FY2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buckhorn Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Buckhorn Lake is located in southeastern Kentucky, 43.3 river miles upstream from Beattyville, where the Middle Fork and the North Fork of the Kentucky River converge. The dam site is 0.5 miles upstream from the community of Buckhorn. The dam is earthen and rock-fill with gate controlled outlet works and a gate controlled spillway. The structure is 160-feet high and 1,020-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,958,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,693,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$240,000 O: \$1,580,000 T: \$1,820,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,095,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$489,000 – Funding provides for routine O&M of day-use and overnight recreation facilities. These funds also support real estate functions for recreation management by other lessees, agencies and partners.

H: N/A

EN: \$236,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$1,318,000 and total \$75,135,000 since 1959. FY 2012 recreation visits were 334,161 and estimated visitor expenditures were \$6,620,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$45,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carr Creek Lake, KY

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Carr Creek Lake is located in the mountainous region of southeastern Kentucky, about 12 miles south of Hazard. The dam is located on Carr Fork, 8.8 miles above the confluence with the North Fork of the Kentucky River, approximately 16 miles upstream from Hazard. The entire project lies in Knott County. The dam is rock and earthen-fill, 130 feet high and 720 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,949,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,882,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M, and install efficiency improvements in recreation area restrooms.

BUDGETED AMOUNT FOR FY 2018: M: \$304,000 O: \$1,546,000 T: \$1,850,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,174,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$478,000 – Funding provides for routine O&M of day-use and overnight recreation facilities. These funds also support real estate functions to support recreation management by other lessees, agencies and partners.

H: N/A

EN: \$190,000 – Funding provides routine O&M for performance of environmental stewardship. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$8,000 – Funding provides for performance of routine activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$2,688,000 and total \$107,516,000 since 1976. FY 2012 recreation visits were 858,071 and FY 2012 visitor expenditures were estimated to be \$16,700,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$76,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cave Run Lake, KY

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738) and 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cave Run Lake is located in northeastern Kentucky, about 12 miles south of Morehead. The dam site is at mile 173.6 of the Licking River. The dam is rolled earth and rock-fill with gate controlled outlet works and is 148 feet high and 2,700 feet long. The lake is confined within Bath, Menifee, Morgan, and Rowan Counties and within the proclamation boundary of the Daniel Boone National Forest. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,028,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,094,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$179,000 O: \$783,000 T: \$962,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$722,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$127,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$102,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection.

WS: \$11,000 – Funding provides for routine O&M activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$6,149,000 and total \$264,389,000 since 1973. FY 2012 recreation visits were 287,651 and FY 2012 visitor expenditures were estimated to be \$5,620,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dewey Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dewey Lake is located in Floyd County, KY on Johns Creek of the Levisa Fork, a tributary of the Big Sandy River. It is 5.4 miles above the mouth of Johns Creek and 79.4 miles above the mouth of the Big Sandy River. The project includes operation and maintenance (O&M) of Dewey Lake. The lake is impounded by a rolled earth-fill dam with an uncontrolled spillway. The crest length of the dam is 913 feet. The dam was completed in July of 1949.

FISCAL YEAR 2016 ALLOCATION: \$1,835,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities include routine operation and maintenance (O&M) activities and updating the Master Plan.

FISCAL YEAR 2017 ALLOCATION: \$1,749,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$718,000 O: \$1,202,000 T: \$1,920,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,322,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$549,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$49,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The project has prevented over \$123,329,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 1,066,000 and average annual visitation from 2008 to 2012 exceeded 1,289,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elvis Stahr (Hickman) Harbor, KY

AUTHORIZATION: Rivers and Harbors Act of 1960, Section 107; Water Resources Development Act 1988, Section 53(b)

LOCATION AND DESCRIPTION: This harbor is located near Hickman, Kentucky in Fulton County and is used primarily for the export of agricultural products. The project extends from the main channel (mile 922.0) of the Mississippi River along the city front to a point about 0.3 miles below the junction of Obion Creek and Bayou Du Chien. The approved channel dimensions are 9 feet deep, 250 feet wide and 5,800 feet long with a 500 foot by 600 foot turning basin at its upstream end. This harbor contains the US Coast Guard boat basin for the Cutter Chena and landing access for the ferry between Kentucky and Missouri. The local interest is the city of Hickman, KY.

FISCAL YEAR 2016 ALLOCATION: \$665,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin. Funds were also used for limited dredging in the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$925,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor and turning basin and limited harbor dredging to authorized channel dimensions.

BUDGETED AMOUNT FOR FY 2018: M: \$900,000 O: \$15,000 T: \$915,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$915,000 – Funding provides for navigation channel surveys and to perform maintenance dredging of the harbor to authorized channel dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 934,000 tons. The harbor includes the U.S. Coast Guard Cutter Chena boat basin and a local ferry providing transportation to and from Missouri.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Falls of the Ohio National Wildlife Conservation Area, KY & IN

AUTHORIZATION: An Act of December 29, 1981 (H.R. 2241, PL 97-137, Title II, 95 Stat 1710) established the 1,000-acre Falls of the Ohio National Wildlife Conservation Area, at a cost not to exceed \$300,000. An Act of November 28, 1990 (P.L. 101-640, 101st Cong., 2nd Session) modified PL 97-137 by authorizing an interpretive center at Falls of the Ohio National Wildlife Conservation Area, at an estimated total cost of \$3,200,000.

LOCATION AND DESCRIPTION: Falls of the Ohio National Wildlife Conservation Area is located in Clark and Floyd Counties in Indiana and Jefferson County in Kentucky. It consists of the land area in and along the Ohio River in the states of Indiana and Kentucky. The Conservation Area lies along the shoreline of the Ohio River, as well as within the river in areas known as Sand and Shippingport Islands. Existing within the area is part of the Ohio River and the Falls of the Ohio.

FISCAL YEAR 2016 ALLOCATION: \$19,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$223,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M and will complete a comprehensive update of the Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$8,000 O: \$35,000 T: \$43,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$43,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: The “Falls” is a misnomer for this series of rapids. The area contains exposed limestone fossil beds during normal river flows. These fossil beds are the only location in the entire 981 mile length of the Ohio River where bedrock is exposed.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Louisville

Falls of the Ohio National Wildlife
Conservation Area, IN & KY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fishtrap Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Fishtrap Lake is located in Pike County, KY on the Levisa Fork of the Big Sandy River. It is 103.3 miles above the mouth of the Levisa Fork. The project includes operation and maintenance (O&M) of Fishtrap Lake. The lake is impounded by a rolled rock dam with impervious core and a controlled spillway. The top length of the dam is 1,100 feet. The dam was completed in February 1969.

FISCAL YEAR 2016 ALLOCATION: \$2,054,000

WORK DESCRIPTIONS FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, an emergency exercise, mineral extraction risk assessment activities, and to initiate a Level One Inventory.

FISCAL YEAR 2017 ALLOCATION: \$2,190,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities, and to initiate a Level One Inventory.

BUDGETED AMOUNT FOR FY 2018: M: \$834,000 O: \$1,356,000 T: \$2,190,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,680,000 – Funds will provide for routine O&M for flood risk management. Routine activities include steel inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$464,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$46,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. The project will also complete a Level One Inventory to adequately capture project resources to minimize potential loss, primarily due to mineral extraction concerns.

WS: N/A

OTHER INFORMATION: The project has prevented over \$618,000,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 544,000 and average annual visitation 2008-2012 exceeded 508,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$62,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grayson Lake, KY

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Grayson Lake is located in Carter County, Kentucky, on the Little Sandy River, 51.2 miles above its mouth. The lake is impounded by an earthen dam with a central impervious core. It has a maximum height of 120 feet and a top length of 1,460 feet. The spillway is an uncontrolled, broad crested, saddle spillway at the left abutment. The dam was completed in 1968.

FISCAL YEAR 2016 ALLOCATION: \$1,511,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,525,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$690,000 O: \$1,282,000 T: \$1,972,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,559,000 – Funds will provide for routine O&M for flood risk management. Routine activities include steel inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management. Also, Sustainability package to install solar panels at the project is included (250,000) and install inflow monitoring system (\$175,000).

RC: \$340,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$40,000 Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: \$33,000 – Funds will provide for routine O&M for water supply to provide an estimated 1.5 million gallons per day to approximately 10,000 citizens in Carter and Elliott Counties, KY.

OTHER INFORMATION: The project has prevented over \$143,184,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 615,000 and average annual visitation from 2008 to 2012 exceeded 1,008,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green & Barren Rivers, KY

AUTHORIZATION: Rivers & Harbors Appropriation Act of 1888; 1909 Act (P.L. 60-317)

LOCATION AND DESCRIPTION: Six lock and dams on the Green River and one on the Barren River were constructed under the project authority, but only two remain operational for navigation. Green River Lock and Dam Number 1 is a low-use waterway located on the Green River at river mile 9.1 at Spotsville, KY. The project consists of a fixed crest dam and a single 84-foot by 600-foot lock chamber. Green River Lock and Dam Number 2 are located on the Green River at river mile 63.1, at Calhoun, KY. The project consists of a fixed crest dam and a single 84-foot by 600-foot lock chamber.

FISCAL YEAR 2016 ALLOCATION: \$2,118,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed during FY 2016 was in the Navigation business line for routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$2,180,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed during FY 2017 will be in the Navigation business line for routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$1,571,000 O: \$1,849,000 T: \$3,420,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,402,000 – Funding provides for routine O&M. In addition, funds are provided to replace signage on dam (\$320,000), and replace motor control center at Lock and Dam #1 (\$600,000)

FRM: N/A

RC: N/A

H: N/A

EN: \$18,000 – Funding provides for routine O&M.

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$94,000. There was an additional \$30,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Green River Lake lies in Taylor and Adair counties in south central Kentucky. It is approximately 90 miles south-southeast of Louisville and about 8 miles south of Campbellsville. The dam site is at mile 305.7 on Green River. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The dam and is 143 feet high and 2,350 feet long. The project also includes an earth-filled dike that is 105 feet high and 1,952 feet long. The project also has a visitor's center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$2,682,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$2,575,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M and \$65,000 for sustainability work to include water efficiency upgrades.

BUDGETED AMOUNT FOR FY 2018: M: \$475,000 O: \$2,442,000 T: \$2,917,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,980,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$695,000 – Funding provides for routine O&M of the recreation facilities.

H: N/A

EN: \$231,000 – Funding provides for routine O&M of natural resource management, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$11,000 – Funding provides for routine water supply activities.

OTHER INFORMATION: FY 2015 estimates of flood damages prevented were \$3,519,000 and total \$172,450,000 since 1967. FY 2012 recreation visits were 834,525 and estimated FY 2012 visitor expenditures were \$17,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$41,000. There was an additional \$40,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kentucky River, KY

AUTHORIZATION: Rivers and Harbors Act of 1879.

LOCATION AND DESCRIPTION: The project is a low-use waterway located in east central Kentucky. Its authorization provided for 14 locks and dams on the Kentucky River for navigation. It stretches from Beattyville to the confluence with the Ohio River at Carrollton. Kentucky Locks numbers 5 through 14 have been transferred from the USACE to the Commonwealth of Kentucky. Kentucky Locks numbers 1 through 4 are leased to the Commonwealth of Kentucky for Public Parks and Recreation.

FISCAL YEAR 2016 ALLOCATION: \$10,000

DESCRIPTIONS OF WORK FOR FY 2016: All funding in FY 2016 was for routine operations.

FISCAL YEAR 2017 ALLOCATION: \$10,000

DESCRIPTIONS OF WORK FOR FY 2017: All funding in FY 2017 is for routine operations.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 – Funding provides for annual review of the Commonwealth's lease and to respond to requests and questions from the Commonwealth. The Navigation line item covers the costs for the Planning and Real Estate Divisions to process the transfer of the property to the Commonwealth of Kentucky.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since the locks are no longer operated by the Corps they are considered excess property. A disposition study is planned to initiate transfer of the four remaining locks if and when funding is made available.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Laurel River Lake, KY

AUTHORIZATION: Section 203 of the Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Laurel River Lake is located in the Counties of Laurel and Whitley, approximately nine miles west of Corbin, Kentucky. The project consists of a rock-fill dam, a hydropower plant, and a reservoir with recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$2,022,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$2,173,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$844,000: O: \$1,854,500 T: \$2,698,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$194,000 – Funding provides for routine O&M for recreation.

H: \$1,796,000 - Funding provides for routine O&M for the hydropower plant.

EN: \$55,500 - Funding provides for the routine O&M for environmental stewardship.

WS: \$42,000 – Funding provides for routine O&M for water supply.

OTHER INFORMATION: The hydropower plant generates 66,000 megawatt-hours of energy annually, enough for 5,500 homes. Laurel River Lake had 305,421 project visits in FY 2012, which is the year of record for visitation, with an estimated \$5,810,000 in trip spending. Revenue returned to the U.S. Treasury under Water Supply Agreements collections in FY 2015 was \$125,000. The budgeted amount includes \$611,000 for project features jointly used by multiple business lines: HYD – 24% and REC – 76%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$16,000. There was an additional \$14,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Martins Fork Lake, KY

AUTHORIZATION: Section 201 (a) of the Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Martins Fork Lake is located at river mile 15.6 of the Martins Fork of the Cumberland River, approximately 13 miles southeast of the town of Harlan, Kentucky. The project consists of a concrete gravity dam and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$1,080,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,193,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$585,000 O: \$911,000 T: \$1,496,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,280,000 – Funding provides for routine operation and maintenance for flood risk management and repairs to the stilling basin.

RC: \$16,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$198,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: \$2,000 – Funding provides for routine operation and maintenance for water supply.

OTHER INFORMATION: This project prevents a major portion of average annual flood damages at Harlan and the surrounding areas. Martins Fork Lake had 180,556 project visits in FY 2012, which is the year of record for visitation, with an estimated \$3,663,000 in trip spending. The project has prevented \$1,601,000 in damages through FY 2015.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Middlesboro Cumberland River, KY

AUTHORIZATION: Section 5 of the Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is located at Middlesboro, Kentucky on Yellow Creek, a tributary of the Cumberland River, about 660 miles above its confluence with the Ohio River. The project consists of a canal and levee system about 4 miles in length which diverts Bennett's Fork Creek around the city into Yellow Creek.

FISCAL YEAR 2016 ALLOCATION: \$261,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$264,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$264,000 T: \$264,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$264,000 – Funding provides for routine O&M for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented \$564,033,000 in flood damages through FY 2015.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$28,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nolin Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Nolin Lake is located 12 miles south of Leitchfield, KY and 70 miles south of Louisville in Edmonson, Grayson, and Hart Counties of central Kentucky. The dam site is 7.8 miles above the mouth of the Nolin River, and 9.6 miles upstream from Lock Number 6 on the Green River. The dam is rock-fill and earthen core with gate-controlled outlet works, and an uncontrolled open spillway. The dam is 166 feet high and 980 feet long. The project was authorized as a multi-purpose flood control project with recreation management, environmental stewardship, and water supply activities.

FISCAL YEAR 2016 ALLOCATION: \$2,716,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$2,709,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine operations and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$432,000 O: \$2,448,000 T: \$2,880,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,736,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$727,000 – Funding provides for routine O&M of recreation facilities. These funds support management of the recreation program and real estate functions to support recreation management by others.

H: N/A

EN: \$409,000 – Funding provides for routine O&M of environmental stewardship activities, including natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$8,000 – Funding provides for routine management of water supply contracts, and addresses local and congressional interests.

OTHER INFORMATION: The project is estimated to have prevented flood damages in FY 2015 of \$2,296,000 and total \$121,688,000 since 1963. FY 2012 recreation visits were 1,236,588 and FY 2012 estimated visitor expenditures were \$26,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$118,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks & Dams, KY, IL, IN & OH

AUTHORIZATION: The 1909 Act (P.L. 60-317), Rivers & Harbor Appropriation Action of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: This Federal project manages eight locks and dams in the Ohio River starting with Markland at river mile 531.5 and ending with Locks and Dam Number 53 at river mile 962.6. Locks and Dams Numbers 52 and 53 are low-lift wicket dams. Markland, McAlpine, Cannelton, Newburgh, John T. Myers, and Smithland Locks and Dams are modern high-lift projects between 40 and 50 years old.

FISCAL YEAR 2016 ALLOCATION: \$33,733,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and non-routine maintenance included:

- Repair dam and miter sills at Locks and Dam 52
- Replace dam cable connections at John T Myers Locks and Dam
- Rent floating crane for dam repairs at Locks and Dam 52
- Replace high mast lighting with energy efficient lights at Newburgh and John T Myers Locks and Dams
- Replace HVAC units with energy efficient units at Newburgh and John T Myers Locks and Dams
- Repaired culvert valve at McAlpine Locks and Dam
- Performed structural and mechanical repairs to the tainter gates at Markland Locks and Dam
- Replaced critical dam warning signs at Smithland and Cannelton Locks and Dams

FISCAL YEAR 2017 ALLOCATION: \$40,691,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine O&M activities and non-routine activities including:

- Repair auxiliary chamber lower miter gate sill at Locks and Dam 52
- Repair auxiliary chamber filling and emptying valves at Markland Locks and Dam
- Rent floating crane for dam repairs at Locks and Dam 52
- Replace high mast lighting with energy efficient lights at McAlpine and Markland Locks and Dams

Additional funds for non-routine activities are provided for:

- Replace the main service transformer to lock at Smithland (\$150,000)
- Replace the dam tainter gate skin sheets at Cannelton (\$1,130,000)
- Continue current contract for dam repairs at Locks and Dam 52 (\$2,821,000)
- Fund a new dam repair contract at Locks and Dam 52 (\$3,750,000)
- Order replacement wickets and hardware for Locks and Dam 52 (\$1,500,000)
- Replace power feeder components at Smithland (\$410,000)

BUDGETED AMOUNT FOR FY 2018: M: \$28,827,000 **O:** \$18,504,000 **T:** 47,331,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$47,256,000 – Funding will be used for routine O&M activities and non-routine maintenance repair activities to replace worn pintle balls, contact blocks, and anchorages at Newburgh Lock and Dam, for the design of new miter gates at Cannelton (\$450,000), and to fabricate replacement upper gates at Cannelton (\$13,000,000).

FRM: N/A

Division: Great Lakes and Ohio River

District: Louisville

Ohio River Locks and Dams, KY,
IL, IN & OH

RC: N/A

H: N/A

EN: \$75,000 – Funds will be used for cultural resources site monitoring and protection management of special status species.

WS: N/A

OTHER INFORMATION: Some of the highest tonnage on the inland waterways passes through the Louisville District locks with L&D 52 averaging over 90 million tons per year. The Olmsted Locks and Dams construction project will replace L&D 52 and L&D 53. In the interim, these must remain operational. In FY 2012 recreation visits at the locks and dams in this Federal project were 935,447 and estimated FY 2012 visitor expenditures were \$19,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,164,000. There was an additional \$1,030,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Work, KY, IL, IN & OH

AUTHORIZATION: The River and Harbors Act of 1827

LOCATION AND DESCRIPTION: This project consists of the Ohio River channel from Mile 438, at Foster, KY to Mile 981, at Cairo, IL, and is maintained by the Louisville District.

FISCAL YEAR 2016 ALLOCATION: \$5,953,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to perform routine operation and maintenance (O&M) dredging including annual channel condition surveys, identify areas that required dredging, updates of navigation charts, and coordination with Federal and State wildlife agencies, U.S. Coast Guard and the towing industry. Funding will also repair the embankment of the Kentucky Peninsula.

FISCAL YEAR 2017 ALLOCATION: \$5,600,000

DESCRIPTIONS OF WORK FOR FY 2017: Routine O&M dredging including annual channel condition surveys, identify areas that required dredging, updates of navigation charts, and coordination with Federal and State wildlife agencies, U.S. Coast Guard and the towing industry.

BUDGETED AMOUNT FOR FY 2018: M: \$5,800,000 O: \$0 T: \$5,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,800,000 – Routine O&M for navigation. Areas requiring dredging will be dredged by contract, with after dredge surveys to verify satisfactory completion of the work. Other work to be performed includes updates of navigation charts, coordination with federal and state wildlife agencies regarding environmental impacts and mitigation measures, and state water quality certification.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$128,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Louisville

Ohio River Open Channel Work,
KY, IL, IN & OH

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Paintsville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Paintsville Lake is located 7.8 miles above the mouth of Paint Creek about 4 miles west of Paintsville in Johnson County, KY. The lake is impounded by a rock-fill dam with a central impervious core. Its maximum height is 160 feet above the streambed, and the crest length is approximately 1,600 feet with a crest elevation of 757 feet, mean sea level. The dam was completed in 1984.

FISCAL YEAR 2016 ALLOCATION: \$1,416,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and initiation of a Level One Inventory.

FISCAL YEAR 2017 ALLOCATION: \$1,263,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and initiation of a Level One Inventory

BUDGETED AMOUNT FOR FY 2018: M: \$530,000 O: \$852,000 T: \$1,382,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,087,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$181,000 – Funds will provide for O&M Recreational functions.

H: N/A

EN: \$76,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. In addition, the project will complete a Mark Boundary survey.

WS: \$38,000 – Funds will provide for routine O&M for water supply to provide an estimated 6 million gallons per day to Johnson County and large portions of adjacent counties.

OTHER INFORMATION: The project has prevented over \$30,290,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 1,024,000 and average annual visitation from 2008 to 2012 exceeded 998,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rough River Lake, KY

AUTHORIZATION: The Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Rough River Lake is located near the community of Falls of Rough, 20 miles from Leitchfield and 95 miles southwest of Louisville, in Breckinridge, Hardin, and Grayson counties of south-central Kentucky. The dam is located on the Rough River, 89.3 miles above its confluence with the Green River. The dam is rolled, earthen- and rock-fill type, with gate-controlled outlet works. It is 130-feet high and 1,590-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2016 ALLOCATION: \$3,798,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M). \$1,000,000 will be used to survey several miles of flowage easement and also recertification and resolution of disposal actions for the real estate encroachments.

FISCAL YEAR 2017 ALLOCATION: \$5,216,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed, by business line, during FY 2017 will be routine O&M. There is a total of \$48,000 for sustainability work on this project to include water and electric efficiency upgrades. There is a total of \$65,000 for sustainability work on this project to include water efficiency upgrades. There is also \$1,900,000 for flowage easement surveys and \$200,000 for real estate acquisition report.

BUDGETED AMOUNT FOR FY 2018: M: \$1,786,000 O: \$2,514,000 T: \$4,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,931,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$701,000 – Funding provides for routine O&M of recreation facilities. These funds support the recreation program and real estate functions to support recreation management by other lessees, agencies and partners.

H: N/A

EN: \$1,654,000 – Funding provides for routine O&M. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$14,000 – Funding provides for routine coordination of water supply and congressional concerns for water needs affecting public health and welfare.

OTHER INFORMATION: This project is estimated to have prevented \$4,092,000 in flood damages in FY 2015 and total \$233,268,000 since 1959. FY 2012 recreation visits were 582,913 and estimated FY 2012 visitor expenditures were \$12,000,000.

Division: Great Lakes and Ohio River

District: Louisville

Rough River Lake, KY

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$41,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Taylorsville Lake, KY

AUTHORIZATION: The Flood Control Act of 1966 (P.L. 89-789) and managed as a P.L. 89-72 project.

LOCATION AND DESCRIPTION: The dam is located 40 miles southeast of Louisville, and 4 miles upstream from Taylorsville, KY. It is at mile 60.0 of the Salt River, a tributary of the Ohio River. All fee and easement property is located in Spencer, Nelson, and Anderson counties. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. It is 163-feet high and 1,280-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,430,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M). FY 2016 funds will be used to replace the underground diesel storage tank and line with an above ground tank and double-walled piping to the control tower.

FISCAL YEAR 2017 ALLOCATION: \$1,096,000

DESCRIPTIONS OF WORK FOR FY 2017: All work within each business line will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$244,000 O: \$855,000 T: \$1,099,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$880,000 – Funding provides for routine O&M of the dam, outlet works and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$71,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$148,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: In FY 2015 the project is estimated to have prevented \$3,306,000 in flood damages and total \$109,098,000 since 1983. FY 2012 recreation visits were 684,785 and FY 2012 visitor expenditures were estimated at \$14,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$39,000. There was an additional \$70,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wolf Creek Dam, Lake Cumberland, KY

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Wolf Creek Dam is located ten miles southwest of Jamestown at mile 460 on the Cumberland River in Russell County, Kentucky. The project consists of an earthen-fill and concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$9,272,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance of the project and continuation of a water supply reallocation study (\$149,000). Funding was also used for non-routine maintenance to rehabilitate two restrooms in a day use area and a campground (\$220,000) and for engineering and design for repairs of monolith leaks (\$175,000).

FISCAL YEAR 2017 CONFERENCE AMOUNT: \$9,195,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project and continuation of a water supply reallocation study (\$114,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,572,000 O: \$8,041,000 T: \$11,613,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,637,000 – Funding will be used for routine operation and maintenance for recreation.

H: \$5,841,000 – Funding will be used for routine operation and maintenance for the hydropower plant and to repair leakage in the cable tunnel.

EN: \$507,000 – Funding will be used for routine operation and maintenance for environmental stewardship.

WS: \$135,000 – Funding will be used for routine operation and maintenance for water supply and a water supply reallocation study.

OTHER INFORMATION: The budgeted amount for the project includes \$3,493,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD – 44% and FRM – 56%. These joint activities include \$1,125,000 for a work package to repair leaks in Monolith 18. The hydropower plant generates 965,000 megawatt-hours annually, enough for 80,000 homes. Lake Cumberland ranks 13th of 422 Corps facilities for recreation with 3,855,410 project visits in FY 2012, which is the visitation year of record, with an estimated \$101,000,000 in trip spending. The project prevented \$1,661,952,000 in damages through FY 2015. Expected recovery cost of storage once water supply reallocation study is complete and all storage agreements are executed is estimated to be \$11 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$65,000. There was an additional \$20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Nashville

Wolf Creek Dam, Lake Cumberland, KY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yatesville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Yatesville Lake, KY is four miles south of Yatesville and 5 miles west of Louisa in Lawrence County, 18 miles above the mouth of Blaine Creek. The dam was completed in 1991, constructed with rock-fill and a central impervious core, and founded on in-situ overburden. The maximum height is 105 feet and the crest length is 760 feet. The uncontrolled, broad-crested spillway is located one-half mile southeast of the dam.

FISCAL YEAR 2016 ALLOCATION: \$1,181,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and completing a Level One Inventory.

FISCAL YEAR 2017 ALLOCATION: \$1,279,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$494,000 O: \$1,080,000 T: \$1,574,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,167,000 – Funds will provide for routine O&M for flood risk management. Routine activities include bridge inspections, water management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$190,000 – Funds will provide for routine O&M Recreational facilities.

H: N/A

EN: \$92,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: \$125,000 – Funds will provide for Yatesville lake water supply study.

OTHER INFORMATION: The project has prevented over \$26,090,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 339,000 and average annual visitation from 2008 to 2012 exceeded 252,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

LOUISIANA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atchafalaya River and Bayous Chene, Boeuf & Black, LA

AUTHORIZATION: River and Harbor Act of 3 July 1968, 13 Aug 1068, Sec 101

LOCATION AND DESCRIPTION: The project is located in south central Louisiana. It provides for a 20-foot deep by 400-foot wide navigation channel.

FISCAL YEAR 2016 ALLOCATION: \$6,965,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for dredging the Atchafalaya Bar channel and for routine operation and maintenance.

FISCAL YEAR 2017 ALLOCATION: \$6,645,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to dredge critical reaches in Atchafalaya River, Crewboat Cut, Bay and Bar, perform channel condition surveys of the entire project and routine operation and maintenance, coordinate and prepare environmental compliance consistency, and continue monitoring the effectiveness of Value Engineering Study alternatives to improve navigation and to alleviate unconsolidated fluid mud in the bar channel.

BUDGETED AMOUNT FOR FY 2018: M: \$ 6,495,000 O: \$150,000 T: \$6,645,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,645,000 – Funds will be used to dredge critical reaches in Atchafalaya River Bayou Chene, Crewboat Cut, Bay and Bar to reduced dimensions, and to perform channel condition surveys of Atchafalaya River.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barataria Bay Waterway, LA

AUTHORIZATION: River and Harbor Act 2 March 1919

LOCATION AND DESCRIPTION: The project is located in southeast Louisiana. The navigation channel is 12 feet deep by 125 feet wide for 36.9 miles in the inland and bay channel reaches and 15 feet deep by 250 feet wide for the 3.1 mile bar shallow draft channel.

FISCAL YEAR 2016 ALLOCATION: \$107,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for project management, hydrographic surveys, permit reviews, and to prepare for future dredging operations.

FISCAL YEAR 2017 ALLOCATION: \$3,600,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, for hydrographic surveys, to prepare for future dredging operations, to collect and disseminate water level data, to change benchmarks, and review permit applications. Additional funds are being used for dredging of the navigation channel to maintain authorized project dimensions (\$3,500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 - Funds will be used for project management, for hydrographic channel condition surveys, to complete BCOE review to prepare for future dredging operations, real estate functions and to process project permit applications.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Barataria Bay Waterway connects the Gulf Intracoastal Waterway system to natural gas, oil and sulfur production sites and to commercial fishing areas within Barataria Bay and the Gulf of Mexico.

1 Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Bodcau Dam and Reservoir, LA

AUTHORIZATION: Flood Control Act of 1938, Flood Control Act of 1936, modified by Act of 1939.

LOCATION AND DESCRIPTION: Bayou Bodcau Dam and Reservoir is located on Bayou Bodcau, a tributary of the Red River. It is a single purpose flood control reservoir. Recreation and natural resource stewardship are important secondary uses of project lands at Bodcau.

FISCAL YEAR 2016 ALLOCATION: \$1,459,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance and to perform levee slide repairs.

FISCAL YEAR 2017 ALLOCATION: \$1,471,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance and to perform slide repairs on the levee.

BUDGETED AMOUNT FOR FY 2018: M: \$339,000 O: \$1,173,000 T: \$1,512,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$900,000 – Funds will be used for routine operation and maintenance of the dam, dam safety data gathering, water control/quality analysis and collection, real estate management, and slide repair.

RC: \$383,000 - Funds will be used for routine operation and maintenance of recreation areas.

H: N/A

EN: \$229,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Bayou Bodcau Dam was classified as DSAC III in 2008 as part of the Corps-wide dam safety initiative. The Dam has prevented \$68,000,000 in flood damages since it was placed in operation. Project visitation is over 222,000 per year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$185,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Lafourche and Lafourche Jump Waterway, LA

AUTHORIZATION: Rivers and Harbors Act of 1935 and 1960

LOCATION AND DESCRIPTION: The project is located in southeast Louisiana in Lafourche Parish. Bayou Lafourche is a 36.3 mile shallow draft navigation channel from LaRose, Louisiana to Belle Pass in the Gulf of Mexico. Channel dimensions are 6 feet deep by 60 feet wide from mile 35 to mile 21.9, 9 feet deep by 100 feet wide from mile 21.9 to mile 13.0, 12 feet deep by 125 feet wide from mile 13.0 to mile 3.4, 24 feet deep by 300 feet wide from mile 3.4 to mile 0.0 (Port Fourchon Reach), and 26 feet deep by 300 feet-wide, from mile 0.0 to mile -1.3 (Belle Pass).

FISCAL YEAR 2016 ALLOCATION: \$1,090,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for project management, channel dredging, hydrographic surveys, environmental assessment, managing water level data, and reset of gauges from National Geodetic Vertical, permit reviews and right-of-way to dredged disposal areas.

FISCAL YEAR 2017 ALLOCATION: \$911,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management channel maintenance dredging, hydrographic surveys, preparation of environmental assessments for wetland development/restoration sites, to collect and disseminate water level data, to reset gauges from National Geodetic Vertical Datum to North American Vertical Datum, to review permit applications to provide right-of-entry to dredged material disposal areas, and foreshore and jetty rock repairs.

BUDGETED AMOUNT FOR FY2018: M: \$635,000 O: \$134,000 T: \$769,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$769,000 – Funds will be used for project management, to complete BCOE Review for By Lafourche dredging, for channel maintenance dredging, to perform hydrographic surveys, to review permit applications and to provide right-of-entry to dredged material disposal areas.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Port Fourchon is a multi-use facility serving 90% of the Gulf of Mexico's deepwater oil production and is the land base for the Louisiana Offshore Oil Port which handles 15% of foreign oil imports. The facility is connected to 45%-50% of the U.S. refining capacity and furnishes 18% of the U.S. oil supply. It is equipped to serve about 250 companies involved with offshore oil production, container/break-bulk shipping, trucking, commercial fishing and recreational industries. In support of the vast majority of Gulf deepwater platforms, approx. 275 large supply vessels traverse the Port Fourchon channel on a daily basis. The port performs oil rig refurbishments and has heavy lifting capabilities for deep water vessels.

Division: Mississippi Valley

District: New Orleans

Bayou Lafourche and
Lafourche-Jump Waterway, LA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$979,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Pierre, LA

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located in the vicinity of Shreveport, Louisiana. It provides for flood control by channel improvement and enlargement of Ockley Drive Ditch and segments of Bayou Pierre.

FISCAL YEAR 2016 ALLOCATION: \$23,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for routine operation and maintenance.

FISCAL YEAR 2017 ALLOCATION AMOUNT: \$23,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$42,000 O: \$0 T: \$42,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$42,000 – Funds will be used for operation and maintenance for flood damage reduction.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Segnette Waterway, LA

AUTHORIZATION: River and Harbor Act of 1954

LOCATION AND DESCRIPTION: The project is located in southeast Louisiana in Jefferson Parish. It is a 6 feet deep by 60 feet wide, 12.2 mile navigation channel from Westwego, Louisiana to the Gulf Intracoastal Waterway (GIWW). The channel provides maritime accessibility to the Gulf of Mexico for industries located along the shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for permit review, surveys and project management.

FISCAL YEAR 2017 ALLOCATION: \$20,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, hydrographic surveys, dredging preparation efforts, and to review permit applications.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$ 20,000 T: \$20,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$20,000 – Funds will be used for project management, hydrographic surveys, and to review permit applications.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Bayou Segnette Waterway connects the Gulf Intracoastal Waterway to the Gulf of Mexico for oil and gas production supply companies and serves as an access channel for local hunters and the crab and recreational fishing industries.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche and Vermilion River, LA

AUTHORIZATION: Flood Control Act of 1941; Reclassified as an "Operations and Maintenance, General" project in 1956 by the Chief of Engineers.

LOCATION AND DESCRIPTION: The project is located in southwest Louisiana. The project is a multi-purpose project providing shallow draft navigation and flood control to several parishes.

FISCAL YEAR 2016 ALLOCATION: \$5,000

DESCRIPTIONS OF WORK FOR FY 2016: FY2016 funds were used for permit reviews.

FISCAL YEAR 2017 ALLOCATION: \$12,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for permit review and hydrographic channel condition surveys.

BUDGETED AMOUNT FOR FY 2018: M: \$12,000 O: \$0 T: \$12,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$12,000 - Funds will be used for permit review for Teche Vermillion.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: New Orleans

Bayou Teche and Vermilion
River, LA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche, LA

AUTHORIZATION: River and Harbor Act 26 June 1934 and prior RHA's

LOCATION AND DESCRIPTION: The project is located in south central Louisiana in St. Mary Parish. The project is primarily a shallow draft navigation project.

FISCAL YEAR 2016 ALLOCATION: \$58,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for hydrographic surveys and permit review.

FISCAL YEAR 2017 ALLOCATION: \$50,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for hydrographic surveys real estate management, maintenance dredging, and permit reviews.

BUDGETED AMOUNT FOR FY 2018: M: \$50,000 O: \$0 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Funds will be used for hydrographic surveys, permit review, and real estate review.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caddo Lake, LA

AUTHORIZATION: Flood Control Act of 1965, PL 89-298, Water Resources Development Act of 1976, Public Law 94-587.

LOCATION AND DESCRIPTION: Caddo Lake is located in Caddo Parish, LA, about 19 miles northwest of Shreveport, LA, just upstream of the confluence of Black and Twelve Mile Bayous. The lake helps to provide upstream storage for Shreveport/Bossier City, LA, the third largest city in Louisiana with a population exceeding 200,000.

FISCAL YEAR 2016 ALLOCATION: \$372,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for minimal critical operation and maintenance. Funds were also used to dewater and repair concrete in the still basin, repair seal between monolith 1 and 2 on the left bank and other repairs.

FISCAL YEAR 2017 ALLOCATION: \$209,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2107 are being used for minimal critical operation and maintenance of the lake.

BUDGETED AMOUNT FOR FY 2018: M: \$7,000 O: \$191,000 T: \$198,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$141,000 – Funds will be used for routine operation and maintenance for flood damage reduction.

RC: \$57,000 - Funds will be used for operation and maintenance of recreation facilities.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The lake has over 33,000 visitors annually.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$165,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Calcasieu River and Pass, LA

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The 68-mile channel is located in southwest Louisiana and extends from the Gulf of Mexico to Lake Charles, Louisiana. The project is authorized at 40x400 feet inland and 42x800 feet in the bar channel.

FISCAL YEAR 2016 ALLOCATION: \$31,030,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for dredging inland reach 5-15, hydrographic surveys, permit review, the Saltwater Barrier Control Structure, and right-of-entry for dredged material disposal areas. Funds were also used to dredge the Calcasieu Bar Channel and Devil's Elbow to project dimensions and Energy Transfer Port work.

FISCAL YEAR 2017 ALLOCATION: \$32,007,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging, to operate and maintain the Saltwater Barrier Control Structure, hydrographic surveys, right-of-entry for dredged material disposal areas, to reduce encroachments, instrumentaiton data collection, environmental planning for dredging, and permit reviews. Additional funds are being used for maintenance dredging (\$10,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$20,759,000 O: \$0 T: 20,759,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$20,759,000 - Funds will be used for dredging Calcasieu Inland Reach and River Bar Channel, operation and maintainence of the Saltwater Barrier Control Structure, hydrographic surveys, right-of-entry for dredged material disposal areas to reduce encroachments, and permit reviews.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$701,000 of which \$0 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Freshwater Bayou, LA

AUTHORIZATION: River and Harbor Act of 14 July 1960, Section 101

LOCATION AND DESCRIPTION: Freshwater Bayou is a 23.1 mile shallow draft navigation channel located in southern Louisiana. The channel extends from the northern boundary at mile 161.2 of the Gulf Intracoastal Waterway, west of Harvey Lock, down to the 12 foot depth contour in the Gulf of Mexico. Freshwater Bayou Lock is located at approximately mile 1.5. It provides access to the Gulf of Mexico to Intracoastal City and Abbeville Harbor and Terminal District, as well as the GIWW. The project also includes Freshwater Bayou Lock, which prevents saltwater intrusion into the Mermentau Basin.

FISCAL YEAR 2016 ALLOCATION: \$1,545,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for the operation and maintenance of Freshwater Bayou Lock.

FISCAL YEAR 2017 ALLOCATION: \$1,424,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operating and maintaining Freshwater Bayou Lock, hydrographic surveys and collection of instrumentaiton/engineering data to monitor the lock's stability, sustainability energy savings, real estate, and permit reviews.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,424,000 T: \$1,424,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,424,000 - Funds will be used for the baseline operation and to perform minor lock maintenance of Freshwater Bayou Lock.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project services the offshore petroleum industry supply boats and the commercial fishing industry.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$32,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, LA

AUTHORIZATION: River and Harbor Act of 14 July 1946 and prior Acts

LOCATION AND DESCRIPTION: The Gulf Intracoastal Waterway (GIWW) crosses through all five states that comprise the Gulf of Mexico coastline, connecting Brownsville, Texas in the west to St. Mark, Florida in the east. The GIWW provides a protected passage for barge traffic to move vital commodities along the Gulf Coast.

FISCAL YEAR 2016 ALLOCATION: \$26,638,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for IHNC lock dewatering for new gate and machinery installation, Harvey Lock crane, Port Allen stop-log hoists, and guide wall repairs, dredging, hired labor maintenance on 6 GIWW locks, hydrographic surveys, and instrumentation.

FISCAL YEAR 2017 ALLOCATION: \$40,844,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for dredging, maintenance and operation of 6 GIWW locks and pumping station, dolphins at Calcasieu and IHNC locks, replacement of emergency crane at Algiers Lock, Harvey lock dewatering, electrical sustainability, concrete joint repairs hydrographic surveys, to collect, manage, store and disseminate data from water level gauges, real estate management, and to reopen patrols for 25% visitation. Additional funds are being used to repair guidewalls at Leland Bowman and Calcasieu locks (\$8,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$10,454,000 O: \$16,417,000 T: \$26,871,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$26,603,000 - Funds will be used for dredging in Morgan City and New Orleans Harbor, Algiers Lock concrete joint repairs to chamber walls, hired labor maintenance and operating for 6 GIWW locks, hydrographic surveys, and to perform real estate management.

FRM: \$225,000 – Funds will be used for flood operation and maintenance for the GIWW pumping station.

RC: \$43,000 - Funds will be used for routine operation and maintenance for recreation and to prepare the project master plan and complete National Environmental Policy Act compliance.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$841,000. There was an additional \$325,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Houma Navigation Canal, LA

AUTHORIZATION: River and Harbor Act of 4 Mar 1915, Section 5

LOCATION AND DESCRIPTION: The Houma Navigation Canal is located in Terrebonne Parish, Louisiana and extends a distance of 38 miles from the Gulf Intracoastal Waterway (GIWW) in Houma, Louisiana to the Gulf of Mexico. The authorized project dimensions are 15 feet by 150 feet from the GIWW to the Bar Channel. The Bar Channel has dimensions of 18 feet by 300 feet and provides maritime accessibility to the Gulf of Mexico for the commercial fishing and petrochemical fabrication/support industries that are located along the shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$1,263,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for environmental studies, dredging operations, permit reviews, and land acquisition & disposal mgmt.

FISCAL YEAR 2017 ALLOCATION: \$1,057,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, for dredging operations, to perform hydrographic surveys, to provide right of entry for dredged material disposal areas, environmental monitoring, and to collect, manage, store and disseminate water level data.

BUDGETED AMOUNT FOR FY 2018: M: \$860,000 O: \$119,000 T: \$979,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$979,000 - Funds will be used for project management, dredging operations, to perform hydrographic surveys, to provide right of entry for dredged material disposal areas, to review permit applications, and to complete BCOE Review for Houma Navigation Canal dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: An ancillary benefit to channel maintenance is the beneficial use of dredged material in coastal Louisiana (all within the Federal Standard).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Bennett Johnston Waterway, LA

AUTHORIZATION: Rivers and Harbors Act of 1968; Water Resources Development Act of 1976; Supplemental Appropriations Act of 1984; Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996; and Energy and Water Development Act of 1994.

LOCATION AND DESCRIPTION: The project is located in central and northwest Louisiana and provides for a 9-foot by 200-foot navigation channel extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, LA. Five locks and adjacent dams provide a lift of approximately 141 feet. The project also provides for realigning the banks of the Red River from the Mississippi River to Shreveport by means of dredging, cutoffs, and training works and stabilizing its banks by means of revetments, dikes, and other methods. This is a low use waterway.

FISCAL YEAR 2016 ALLOCATION: \$15,331,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance of the lock and dams, dredging, operation and maintenance of recreation/visitation areas. Funds were also used to dredge approaches to each lock and dam, to repair gate operator, and to perform stone repairs.

FISCAL YEAR 2017 ALLOCATION: \$20,914,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operation and maintenance of locks and dams, maintenance dredging, and operation and maintenance of recreation/visitation areas. Additional funds are being used for annual maintenance dredging (\$2,400,000) and to perform repairs to the Red River Navigation Channel caused by March 2016 floods (\$9,800,000).

BUDGETED AMOUNT FOR FY 2018: M: \$5,301,000 O: \$6,987,000 T: \$12,288,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$11,094,000 – Funds will be used for operation and maintenance of the lock and dams, dredging, collection of data for water control and quality, and inspections. Also, replace sump pumps and control panels in gallery at Joe D. Waggoner, JR Lock and Dam (\$20,000).

FRM: N/A

RC: \$1,168,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$26,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: In 2014, the port shipped 7,936,611 tons along the J. Bennett Johnston Waterway.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$130,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Providence Harbor, LA

AUTHORIZATION: Rivers and Harbors Act 1960.

LOCATION AND DESCRIPTION: Lake Providence Harbor is an inland harbor, located along the Mississippi River in East Carroll Parish, LA. This is a moderate use shallow draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$989,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for surveys to monitor the need for dredging. Funds were also used for maintenance dredging of the harbor.

FISCAL YEAR 2017 ALLOCATION: \$1,212,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for surveys. Additional funds are being used for annual dredging (\$1,198,000).

BUDGETED AMOUNT FOR FY 2018: M: \$7,000 O: \$5,000 T: \$12,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$12,000 – Funds will be used for surveys in the event maintenance dredging is required to maintain authorized channel dimensions to ensure the harbor is open during low water periods.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project was constructed in 1980. In 2014, the port shipped 1,242,777 tons through Lake Providence Harbor.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Madison Parish Port, LA

AUTHORIZATION: Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: Madison Parish Port is a fast-water, shallow draft port, located on the Mississippi River in Madison Parish, Louisiana. This is a low use shallow draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$150,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for surveys to determine the need for and extent of annual dredging. Funds were also used for maintenance dredging of the harbor.

FISCAL YEAR 2017 ALLOCATION: \$150,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for surveys and for annual maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$147,000 O: \$3,000 T: \$150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$150,000 – Funds will be used for surveys and for annual maintenance dredging required to maintain authorized channel dimensions to ensure the harbor is open during low water periods.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project serves the transportation needs for water-oriented industry for many small communities and farmers in and around Madison Parish, LA. The project was constructed in 1980. In 2014, the port shipped 407,021 tons through Madison Parish Port.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mermentau River, LA

AUTHORIZATION: River and Harbor Act of 26 June 1934 and prior Acts

LOCATION AND DESCRIPTION: Mermentau River is located in southwest Louisiana. It is a multi-purpose project with functions that include shallow draft navigation, flood control, and prevention of saltwater intrusion.

FISCAL YEAR 2016 ALLOCATION: \$1,360,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance of Catfish Point and Schooner Bayou control structures, surveys, gathering of salinity data, and real estate management.

FISCAL YEAR 2017 ALLOCATION: \$1,297,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the Catfish Point and Schooner Bayou Control Structures, real estate management, sustainability energy savings, data collection and analysis, hydrographic surveys, and permit review.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,246,000 T: \$1,246,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,246,000 – Funds will be used for the operation and maintenance of the Catfish Point and Schooner Bayou Control Structures, and hydrographic surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Mermentau River serves an important role to the fishing and oil industry by allowing access in and out of the Mermentau River basin.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$78,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Outlets at Venice, LA

AUTHORIZATION: River and Harbor Act of 1968, Section 101

LOCATION AND DESCRIPTION The project is located in southeastern Louisiana and provides for two outlet channels (Baptiste Collette and Grand/Tiger Pass) from the Mississippi River in the vicinity of Venice, Louisiana. Both shallow draft navigation channels have authorized channel dimensions of 14-foot deep by 150-foot wide (inland reach) and 16-foot deep by 250-foot wide (bar channel reach).

FISCAL YEAR 2016 ALLOCATION: \$6,059,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for dredging Baptiste Collette, surveys, Water Control Data Systems, environmental studies, permit review and RE land acquisition-disposal management.

FISCAL YEAR 2017 ALLOCATION: \$1,449,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, dredging, surveys, environmental assessments, permits, real estate management, and water level data.

BUDGETED AMOUNT FOR FY 2018: M: \$ 1,268,000 O: \$181,000 T: \$ 1,449,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$ 1,449,000 – Funds will be used for project management, dredging Baptiste Collette, hydrographic surveys, permit reviews, and to complete land acquisition, claims & audits, and BCOE review.

FRM: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project serves the Venice Port Complex -- a multi-use facility that supports offshore petrochemical production/exploration efforts, the commercial fishing industry and recreational fishing and boating. The channel also provides the shortest access route to the Gulf of Mexico for the USCG Search and Rescue unit. An ancillary benefit to channel maintenance is the beneficial use of dredged material in coastal Louisiana (all within the Federal Standard).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$467,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River, Baton Rouge to the Gulf of Mexico, LA

AUTHORIZATION: Rivers and Harbors Acts of 1945, Section 2 and 1962, Section 101; Supplemental Appropriations of 1985, P.L. 99-88 and Water Resources Development Act of 1986, Section 201

LOCATION AND DESCRIPTION: The project currently provides a deep draft channel between Baton Rouge and the Gulf of Mexico in Southeast Louisiana. The 45-foot deep draft channel provides access to the largest port complex in the US.

FISCAL YEAR 2016 ALLOCATION: \$138,999,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging from Baton Rouge to the Gulf of Mexico (Southwest Pass (SWP), New Orleans Harbor, Crossings between Baton Rouge and New Orleans), channel surveys, water management, environmental compliance and real estate activities. Funds were also used to partially restore the navigation channel following the winter 2015/2016 flood and for Energy Transfer Port work.

FISCAL YEAR 2017 ALLOCATION: \$105,292,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging from Baton Rouge to the Gulf of Mexico (Southwest Pass, New Orleans Harbor, Crossings between Baton Rouge and New Orleans), channel surveys, salt water barrier sill, rock protection, jetty repairs, water management environmental compliance and real estate activities. This funding will only provide partial channel dimensions, restricting transit of deep-draft commercial vessels through the largest US port complex. Additional funds are being used to perform maintenance dredging (\$4,000,000), SWP dredging of reach #1(\$5,000,000), SWP dredging of reach #2 (\$5,500,000), SWP dredging of reach #3 (\$5,750,000), maintenance dredging for the Port of South Louisiana (\$607,000), maintenance dredging for the Port of Baton Rouge (\$486,000), maintenance dredging for the Port of Plaquemines Parish (\$532,000), and maintenance dredging for the Port of New Orleans (\$532,000).

BUDGETED AMOUNT FOR FY 2018: M: \$79,646,000 O: \$4,200,000 T: \$83,846,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$83,846,000 - Funds will be used to partially maintain the deep draft navigation channel from Baton Rouge to the Gulf of Mexico (Southwest Pass, New Orleans Harbor, Crossings between Baton Rouge and New Orleans), channel surveys, permit reviews, environmental compliance, real estate activities and Dredge Wheeler Readiness Exercises. This funding will only provide partial channel dimensions resulting in restricted transit of deep-draft vessels carrying grain, coal, and other commodities through the largest US port complex.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

Division: Mississippi Valley

District: New Orleans

Mississippi River, Baton
Rouge to the Gulf of Mexico, LA

OTHER INFORMATION: Mississippi River dredging directly impacts the ports of South Louisiana, New Orleans, Baton Rouge and Plaquemines which collectively handle more than 476 million tons of cargo/year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,061,000 of which \$476,000 was for Donor/Energy Ports funds. There was an additional \$2,000,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth, LA

AUTHORIZATION: River and Harbor Act of 1958 as amended

LOCATION AND DESCRIPTION: The project provides for annual recurring maintenance control of water hyacinth and other invasive aquatic vegetation in Federally-maintained waterways and feeder water-bodies throughout south Louisiana. The project is required to maintain navigation for the shipping industry, the oil and gas industry, commercial fisheries and recreational users. Invasive aquatic vegetation growth can also affect flood control and lock operations.

FISCAL YEAR 2016 ALLOCATION: \$370,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for the control of aquatic plants.

FISCAL YEAR 2017 ALLOCATION: \$200,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to work with State applicators to identify and treat specific point sources (if State resources are available) and to handle inquiries and complaints from the public regarding the expansion of water hyacinth, alligator weed, common salvinia and other noxious aquatic plants within District navigable waterways.

BUDGETED AMOUNT FOR FY 2018: M: \$200,000 O: \$0 T: \$200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$200,000 – Funds will be used to work with State applicators to identify and treat specific point sources (if State resources are available) and to handle inquiries and complaints from the public regarding the expansion of water hyacinth, alligator weed, common salvinia and other noxious aquatic plants within District navigable waterways.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Mississippi Valley Division

New Orleans District

Removal of Aquatic Growth,
LA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wallace Lake, LA

AUTHORIZATION: Flood Control Act of 1936, H.D. 378, 74th Congress

LOCATION AND DESCRIPTION: Wallace Lake is located on Cypress Bayou, a tributary of Bayou Pierre. The primary purpose of the project is flood control with conservation and recreation as other benefits.

FISCAL YEAR 2016 ALLOCATION: \$224,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$226,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used for operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$6,000 O: \$207,000 T: \$213,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$148,000 – Funds will be used for routine operation and maintenance of the dam, water control/quality analysis, collection of data and evaluation.

RC: \$65,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over \$31 million in flood damages since it was placed in operation. Annual visitation is in excess of 21,000 visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waterway from Empire to the Gulf, LA

AUTHORIZATION: Rivers and Harbors Act of 1946, Public Law 525

LOCATION AND DESCRIPTION: The project is located in Plaquemines Parish. It consists of a 9.5 mile channel from the Dollut Canal to the Gulf of Mexico, with 9 foot by 80 foot dimensions. The channel provides maritime accessibility to the Gulf of Mexico for fishing industries located along the shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$6,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for project management, hydrographic surveys, and to review permit applications.

FISCAL YEAR 2017 ALLOCATION: \$8,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, for hydrographic surveys, Water Control Data Systems, and to review permit applications.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$8,000 T: \$8,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,000 – Funds will be used for project management and hydrographic and to review permit applications.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Empire Waterway connects the Mississippi River to the Gulf of Mexico for commercial and recreational fishing interests. The loss of project dimensions has caused economic hardships and incidents of vessel groundings. A deterioration of existing project jetties has caused land loss of a critical coastal barrier island (Pelican Island) and has increased channel shoaling. An ancillary benefit to channel maintenance is the 100% beneficial use of dredged material in coastal Louisiana (all within the Federal Standard).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: New Orleans

Waterway from Empire to the
Gulf, LA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waterway from Intracoastal Waterway to Bayou Dulac, LA

AUTHORIZATION: Rivers and Harbors Act of 1962, Section 101

LOCATION AND DESCRIPTION: The project is located in Terrebonne Parish and consists of a 10-foot deep by 45-foot wide shallow draft channel in Bayou LeCarpe from the Gulf Intracoastal Waterway via Bayou Pelton and Bayou Grand Caillou to Bayou Dulac with channel dimensions of 5-foot deep by 40-foot wide. The project provides accessibility to the Houma Navigation Canal/Gulf of Mexico for maritime industries located along the waterway

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for project management, surveys, dredging preparation and permit reviews.

FISCAL YEAR 2017 ALLOCATION: \$22,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project management, hydrographic surveys, preparations for future dredging contracts and permit application reviews.

BUDGETED AMOUNT FOR FY 2018: M: \$12,000 O: \$10,000 T: \$22,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$22,000 – Funds will be used for project management, hydrographic surveys, preparations for future dredging contracts, and permit application reviews.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: An ancillary benefit is the 100% beneficial use of dredged material in coastal Louisiana (all within the Federal Standard).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: New Orleans Dredge

Waterway from Intracoastal
Waterway to Bayou Dulac, LA

MAINE

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Disposal Area Monitoring, CT, ME, MA, NH, NY and RI

AUTHORIZATION: Section 404 of the Clean Water Act of 1972 and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.

LOCATION AND DESCRIPTION: The project involves the management and monitoring of 10 regional open-water dredged material disposal sites located along coastal New England. These sites serve over 90 percent of the disposal needs for dredging projects in New England and portions of New York.

FISCAL YEAR 2016 ALLOCATION: \$1,290,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform annual disposal site monitoring; including condition surveys, sediment sampling and testing, repositioning of disposal site buoys and preparation of several monitoring study reports.

FISCAL YEAR 2017 ALLOCATION: \$1,050,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform annual disposal site monitoring; including condition surveys, sediment sampling and testing, repositioning of disposal site buoys and preparation of several monitoring study reports.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,050,000 T: \$1,050,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,050,000 – Funds will be used to perform minimal annual disposal site monitoring; including condition surveys, sediment sampling and testing, repositioning of disposal site buoys and preparation of several monitoring study reports.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Disposal sites in New England receive an average of 1.5 million cubic yards of dredged material per year from Federal, State and private dredging projects in New England and New York. Surveys, sediment sampling and testing are performed to assure that disposal does not result in hazards to navigation and that environmental requirements are met.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$106,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Disposal Area Monitoring, CT,
ME, MA, NH, NY and RI

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Saco River, ME

AUTHORIZATION: Adopted in 1827 (4 Stat. 228) and supplemented by enactments in 1866 (14 Stat. 70), 1890 (26 Stat. 426), 1910 (P.L. 61-264), 1925 (P.L. 68-585) and 1935 (P.L. 74-409). The project was also modified on 14 November 1967 and 8 March 1982 under Section 107 of the Rivers and Harbors Act of 1960 (P.L. 86-645).

LOCATION AND DESCRIPTION: The Federal Navigation Project (FNP) is located at the mouth of the Saco River in southern Maine. The project consists of an 8-foot channel, 100 to 200 feet wide, extending from the ocean about 6 miles upstream to the head of navigation at Saco and Biddeford, Maine. The project includes an 8-foot basin at the head of the channel and three 6-foot anchorages in the lower river, one protected by steel pile icebreakers for winter use. The project also provides for a north breakwater and south jetty at the mouth of the river and several small riprap jetties and dikes within the river. The project was completed in 1983 and last maintained in 1993.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$4,200,000 O: \$0 T: \$4,200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,200,000 – Funds will be used to award a fully funded base bid contract with options to perform maintenance dredging of about 140,000 cubic yards of material from the 8-foot channel and anchorage with in-river placement and beach re-nourishment.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor contributes significantly to the regional economy employing over 450 residents from Biddeford and Saco, Maine in the marine industry and related businesses. Shoaling has made portions of the project essentially inaccessible to lobster vessels for several hours on each side of low tide. Vessels using the project are increasingly at risk to damage from groundings and breaking waves in the 8-foot entrance channel. Removal of approximately 140,000 cubic yards of material is required to restore the Federal navigation project to its authorized dimensions. Dredge material will be placed in-river and used as beach re-nourishment on the adjacent Camp Ellis Beach in Saco, Maine. Environmental restrictions require dredging to be performed between 1 October and 28 February to protect fisheries resources in the area.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Saco River, ME

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Wells Harbor, ME

AUTHORIZATION: Section 101 of the Rivers and Harbors Act of 1960 (P.L. 86-645), Section 107 of the Rivers and Harbors Act of 1960 (P.L. 86-645) and Section 365(a) (9) and (c) of the Water Resources Development Act of 1999 (P.L. 106-53).

LOCATION AND DESCRIPTION: Wells Harbor is located in the town of Wells, Maine at the mouth of the Webhannet River, about 20 miles northeast of Portsmouth Harbor, New Hampshire. The project consists of two stone jetties controlling the inlet, an 8-foot entrance channel 100 feet wide, a 6-foot inner channel 80 to 150 feet wide, a 6-foot anchorage area in the inner harbor, a settling basin relocated to the outer harbor and revetment of the municipal parking area. Construction of the project was completed in May 1967. Maintenance dredging was last performed in January 2014. Shoaling of the 8-foot entrance channel can cause breaking waves putting vessels at risk of capsizing. Periodic maintenance dredging of the 8-foot entrance channel is needed for continued safe and efficient navigation.

FISCAL YEAR 2016 ALLOCATION: -\$144,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$400,000 O: \$0 T: \$400,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$400,000 – Funds will be used to perform maintenance dredging of the 8-foot entrance channel using the government dredge CURRITUCK. About 5,000 cubic yards of sandy material would be removed and placed at a near shore site off Wells Beach.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Wells Harbor supports a large recreational fleet and a commercial fishing fleet of approximately 21 vessels. In 2013, approximately 40 tons of shellfish were landed, valued at around \$240,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$144,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Wells Harbor, ME

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: York Harbor, ME

AUTHORIZATION: Authorized by the Rivers and Harbors Acts of 1886 (24 Stat. 310), 1905 (P.L. 58-215) and 1960 (P.L. 86-645).

LOCATION AND DESCRIPTION: York Harbor is located at the mouth of the York River, a small stream that empties into the Atlantic Ocean about 12 miles northeast of Portsmouth, New Hampshire. The project consists of a 10-foot channel, 170 feet wide, extending about one half mile from the ocean into York Harbor. The project also includes two 8-foot anchorage areas located north and south of Bragdons Island. The project was completed in 1961 and last maintained in 1996.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$2,500,000 O: \$0 T: \$2,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,500,000 – Funds will be used to award a fully funded contract to perform maintenance dredging of about 42,000 cubic yards of material from the 10-foot channel and 8-foot anchorages with placement at the Cape Arundel Disposal Site.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor supports 70 commercial fishing and 164 recreational vessels and is very important financially to the small town of York, Maine. Shoaling has reduced the time the project is available to about forty percent and has severely limited safe navigation. Approximately eighty percent of the anchorage areas and portions of the channel have shoaled as much as three feet. Removal of approximately 42,000 cubic yards of material is required to restore the Federal navigation project to its authorized dimensions. Environmental restrictions require dredging to be performed between 1 November and 31 March to protect fisheries resources in the area.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

York Harbor, ME

MARYLAND

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor and Channels, MD & VA

AUTHORIZATION: House Document 799, 64th Congress, 1st Session, 1917; River and Harbors Committee Document 11, 70th Congress, 1st Session, 1930; House Document 741, 79th Congress, 2nd Session, 1945; House Document 86, 85th Congress, 1st Session, 1958; House Document 181, 94th Congress, 1st Session, 1970; Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: The project channels are located in the Chesapeake Bay from Virginia to Maryland. The authorized system of high-use channels include: a uniform main channel 50 feet deep, and generally 800 (in Maryland) or 1,000 (in Virginia) feet wide through the Chesapeake Bay from the Virginia Capes at the mouth of the Bay to Fort McHenry in the Port of Baltimore, a distance of 175 miles; Depths of 50, 49, and 40 feet are authorized in the 600-foot wide branch channels of Curtis Bay, Northwest Branch East Channel, and Northwest Branch West Channel, respectively; southern approach and connecting channels 35 feet deep and 600 feet wide leading from the Port of Baltimore to the Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, Baltimore Harbor branch channels ranging from 22, 35 and 42 feet deep and 200 to 600 feet wide in Curtis Creek and Ferry Bar; and Baltimore Harbor anchorages 30 and 35 feet deep. The project also includes a straightened Tolchester Channel S-Turn and a 50-foot deep turning basin; 35 and 42-foot deep anchorages; and 42 and 36 feet deep and 400 to 500-foot wide channels into the Dundalk, Seagirt, and South Locust Point deep draft, high use commercial channels.

FISCAL YEAR 2016 ALLOCATION: \$21,211,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for dredging of MD and VA channels.

FISCAL YEAR 2017 ALLOCATION: \$23,347,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for the restoration of authorized dimensions through maintenance dredging of the waterway. Channels scheduled for maintenance dredging include Cape Henry, Rappahannock, Craig Hill, and Ferry Bar channels. Funds will also provide for conducting condition surveys to report channel conditions and to continue studies on the Dredged Material Management Plan. Additional funds are provided for Donor/Energy Transfer Port environmental remediation and maintenance dredging (\$2,772,000).

BUDGETED AMOUNT FOR FY 2018: M: \$24,482,000 O: \$1,075,000 T: \$25,557,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$25,557,000 - Funding will provide for the restoration of authorized dimensions through maintenance dredging of the waterway. Channels scheduled for maintenance dredging include Cape Henry and Craighill Angle channels. Funds will also provide for conducting condition surveys to report channel conditions and to continue studies on the Dredged Material Management Plan.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

Division: North Atlantic

District: Baltimore

Baltimore Harbor and Channels, MD & VA

OTHER INFORMATION: Baltimore Harbor is the second largest coal port on the East Coast and is home port to U.S. Naval Reserve vessels, and is used for military deployments. The US Coast Guard has a fleet of buoy tenders, patrol boats, and ship yard facility in the Harbor. In 2012 the terminals handled the highest number of cars, farm machinery, and construction machinery of all U.S. Ports. The Port's public and private marine terminals saw 44.8 million tons of cargo cross their docks in 2011, up from 39.6 million tons in 2010. The total dollar value amount of that cargo was more than \$54.0 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,485,000 of which \$2,475,000 was for Donor/Energy Ports funds. There was an additional \$15,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor, MD (Drift Removal)

AUTHORIZATION: River and Harbor Act of 1948.

LOCATION AND DESCRIPTION: The Baltimore Harbor Collection and Removal of Drift Project is located within Baltimore City, and Baltimore and Anne Arundel Counties, Maryland. The collection and removal effort is a year round effort and consists of performing routine patrols throughout the high-use harbor and also responding to emergency calls from Coast Guard and Navy activities, state and local government activities, and commercial business concerns for the removal of drift material deemed hazardous to the safe navigation of both commercial and recreational marine vessels.

FISCAL YEAR 2016 ALLOCATION: \$369,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was for drift collection and removal operations and for arc flash compliance.

FISCAL YEAR 2017 ALLOCATION: \$325,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide drift collection and removal operations to support the Port of Baltimore to ensure that commercial vessels have safe passage free of obstructions.

BUDGETED AMOUNT FOR FY 2018: M: \$325,000 O: \$0 T: \$325,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$325,000 - Funding will provide drift collection and removal operations to support the Port of Baltimore to ensure that commercial vessels have safe passage free of obstructions.

FRM: NA

RC: NA

H: NA

EN: NA

WS: NA

OTHER INFORMATION: The Port handles approximately 36.8 million tons of foreign cargo, with an estimated value of \$49.6 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$28,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cumberland, MD & Ridgeley, WV

AUTHORIZATION: Flood Control Act of 1936 and the Flood Control Act of 1946 described in House Document Number 101, 73rd Congress, 1st Session.

LOCATION AND DESCRIPTION: The project is located in Cumberland, Maryland and Ridgeley, West Virginia. The protective works consist of about 1.6 miles of channel improvements along Wills Creek; 1.7 miles of channel improvement along the North Branch Potomac River; 3 pumping stations; eight pressure conduits; an industrial water-supply dam; reconstruction of a railroad bridge; track relocations; and reconstruction of piers and abutments for three highway bridges. Federal maintenance is provided for the channels of Wills Creek and the North Branch Potomac River. Operation and maintenance of the Federal project is performed by the City Engineering Department of Cumberland under contract with the U.S. Army Corps of Engineers, Baltimore District.

FISCAL YEAR 2016 ALLOCATION: \$149,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$186,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$171,000 T: \$171,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$171,000 - Funding will provide for routine operation and maintenance of the project.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 10,000. Flood damages prevented through FY 2014 are \$38 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$7,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jennings Randolph Lake, MD & WV

AUTHORIZATION: Flood Control Act of 1962.

LOCATION AND DESCRIPTION: Jennings Randolph Lake project is located in Garrett County of Maryland, and Mineral County, West Virginia, on the North Branch Potomac River, 7.9 miles upstream of the junction of Savage River with North Branch Potomac River at Bloomington, Maryland. The dam is a rolled earthen- and rock-fill structure with a spillway and with tainter gates along the ridge between the dike and the dam. Outlet works are provided in the right (south) abutment.

FISCAL YEAR 2016 ALLOCATION: \$2,051,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, natural resources protection and conservation, and water supply coordination.

FISCAL YEAR 2017 ALLOCATION: \$2,151,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, natural resources protection and conservation, and water supply coordination.

BUDGETED AMOUNT FOR FY 2018: M: \$2,193,000 O: \$1,507,000 T: \$3,700,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,931,000 - Funding will provide for routine operation and maintenance. In addition, funds are provided to clean and inspect foundation drains in the spillway area (\$100,000) and for design of the electrical replacement for the tainter gate (\$280,000).

RC: \$420,000 - Funding will provide for operation and maintenance.

H: N/A

EN: \$320,000 - Funding will provide natural resources protection and conservation, ecosystem management, and safety and compliance with natural resources laws and regulations.

WS: \$29,000 - Funding will provide for water supply coordination.

OTHER INFORMATION: The project controls a drainage area of 263 square miles with a surface area of 952 acres. The project provides benefit to a population at risk of 90,000. Flood damages prevented through FY 2014 are an estimated \$400 million. The Corps operates and maintains six recreation areas, and two recreation areas are operated and maintained by Mineral County and by the Maryland Department of Natural Resources under real estate leases. Forty-five percent of the storage space in the project is allocated for water supply storage, owned by the Washington Suburban Sanitary Commission, District of Columbia, and Fairfax County.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$147,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Knapps Narrows, MD

AUTHORIZATION: River and Harbor Act of 1935 (P.L. 74-409).

LOCATION AND DESCRIPTION: The project is located in Tilghman Island, Talbot County, Maryland. The project provides for a channel 9 feet deep and 75 feet wide, widened at the bends, from deep water in Chesapeake Bay to deep water in Harris Creek, MD. The project length is 9,000 feet.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$2,300,000 O: \$0 T: \$2,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,300,000 - Funding will provide for maintenance dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This work contributes to Executive Order 13508 goals by innovatively protecting environmental habitat, improving water quality, and expanding public access within the Chesapeake Bay watershed. The project was last dredged to its authorized dimensions in 2006.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$259,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ocean City Harbor and Inlet & Sinepuxent Bay, MD

AUTHORIZATION: River and Harbor Act of 1935 (P.L. 74-409), and modified 1954 (P.L. 83-780).

LOCATION AND DESCRIPTION: Ocean City Inlet is on the far eastern boundary of Maryland along the Atlantic Coast. The project provides an inlet channel 10 feet deep and 200 feet wide from the Atlantic Ocean to a channel leading to the Isle of Wight Bay; protected on the south side by a stone jetty with a top elevation of 8.8 feet above mean low lower water and a top crest of 18 feet, and protected on the north side by a stone jetty with a top elevation of nine feet above mean low lower water and a top crest of 20 feet; a channel 150 feet wide and ten feet deep from the inlet channel to the project harbor, with widths of 100 to 150 feet to the head of the harbor with two turning basins of the same depth; a channel six feet deep and 150 feet wide in Sinepuxent Bay from the inlet to Green Point, and thence 100 feet wide in Chincoteague Bay; and a channel six feet deep and 125 feet wide from the inlet channel to a point opposite North Eighth Street in Ocean City, then 75 feet wide into the Isle of Wight Bay.

FISCAL YEAR 2016 ALLOCATION: \$250,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for dredging of the Ocean City Inlet Channel.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$250,000 O: \$0 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 - Funding will provide for the restoration of authorized dimensions through maintenance dredging of the Ocean City Inlet Channel.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Ocean City Harbor and Inlet & Sinepuxent Bay, MD project provides a safe, reliable, and efficient navigation channel for US Coast Guard vessels, as well as commercial and recreational users. Ocean City is home to a US Coast Guard Station that supports Search and Rescue and Law Enforcement missions. Numerous offshore fishing vessels are homeported in Ocean City providing a significant impact to the local and regional economies. As Maryland's only port on the Atlantic Coast, Ocean City provides critical refuge from severe weather. Material is beneficially used with placement locations at Assateague Island National Seashore and along Ocean City public beaches (approximately 8 million people visit Ocean City each year).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$95,000. There was an additional \$47,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Baltimore

Ocean City Harbor and Inlet &
Sinepuxent Bay, MD

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wicomico River, MD

AUTHORIZATION: River and Harbor Act of 1890, and modified in 1910, 1919, 1930, 1937 and 1954

LOCATION AND DESCRIPTION: The Wicomico River Federal navigation project is located in Wicomico and Somerset Counties, Maryland. The project provides for a 14-foot deep and 150-foot wide channel from the Chesapeake Bay to Salisbury, including a 100-foot wide channel with turning basins, all 14-foot deep in the north and south prongs; a 60-foot wide channel 6-feet deep from deep water in the river to Webster Cove, with a T-shaped basin in the cove 100-feet wide and 400-feet long; and extension of the basin 200-feet long and 100-feet wide on each side. The total project length is 37 miles and different reaches of the project require dredging each year.

FISCAL YEAR 2016 ALLOCATION: \$1,445,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for the removal of critical shoals through maintenance dredging of the waterway. Channels in the upper river near Salisbury are scheduled for maintenance dredging.

FISCAL YEAR 2017 ALLOCATION: \$2,000,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for the removal of critical shoals through maintenance dredging of the waterway. Channels in the upper river near Salisbury are scheduled for maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$2,000,000 O: \$0 T: \$2,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,000,000 - Funds will be used to removal critical shoals through maintenance dredging of the channel, near Salisbury.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Wicomico River navigation project serves the Port of Salisbury and provides 10 facilities for grain exports and petroleum imports, which are important to the economies of Delaware, Maryland, and Virginia. In 2011, barge traffic provided the Port of Salisbury 1,065,000 tons of commerce consisting primarily of petroleum products. Salisbury also provides shipyard facilities to service and construct barges, tugs, and cruise ships.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,809,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

MASSACHUSETTS

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Barre Falls Dam, MA

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Barre Falls Dam is located along the Ware River in the Town of Barre, Massachusetts, about 31.9 miles above the confluence of the Swift River. The dam is located about 13 miles northwest of Worcester, Massachusetts. Barre Falls Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 885 feet long with a maximum height of 69 feet; 3 earth-filled dikes with rock and gravel slopes, totaling 3,215 feet in length; an uncontrolled ogee weir spillway, 60 feet wide with a maximum discharge capacity of 16,300 cubic feet per second; and a 9.7-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 24,000 acre-feet to control runoff from its net drainage area of 55 square miles.

FISCAL YEAR 2016 ALLOCATION: \$711,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$14,000 to perform required bridge inspections. In addition, non-routine work was funded for \$60,000 to paint the service bridge.

FISCAL YEAR 2017 ALLOCATION: \$1,081,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$495,000 to waterproof the concrete spillway and paint the flood gates and guides.

BUDGETED AMOUNT FOR FY 2018: M: \$140,000 O: \$439,000 T: \$579,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$457,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$15,000 to perform required bridge inspections.

RC: \$53,000 – Provides for routine operation and maintenance. Activities include maintenance of project trails and other recreation areas for visitor safety.

H: N/A

EN: \$69,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$106.2 million in flood damages since placed in service in 1958. The project provides recreation opportunities to an average of 82,000 visitors each year and consists of 557 fee owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$42,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated

Division: North Atlantic

District: New England

Barre Falls Dam, MA

to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Birch Hill Dam, MA

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Birch Hill Dam is located along the Millers River, 27.3 miles above its junction with the Connecticut River. The dam lies about 1.3 miles east of South Royalston, Massachusetts and 7.5 miles northwest of Gardner, Massachusetts. Birch Hill Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,400 feet long with a maximum height of 56 feet; an uncontrolled ogee weir spillway, a total of 1,190 feet wide with a maximum discharge capacity of 56,600 cubic feet per second; and four rectangular outlet conduits with eight control gates. The reservoir provides a flood storage capacity of 49,900 acre-feet, to control runoff from its net drainage area of 175 square miles.

FISCAL YEAR 2016 ALLOCATION: \$879,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$110,000 to replace the roofs on four buildings and \$75,000 to complete a seepage analysis.

FISCAL YEAR 2017 ALLOCATION: \$926,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$38,000 to conduct required bridge inspections and \$185,000 to conduct required periodic inspection and assessment of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$229,000 O: \$612,000 T: \$841,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$614,000 – Funds will provide for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases, as well as maintenance service contracts for snow and debris removal, and vegetation control.

RC: \$51,000 – Funds will provide for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$176,000 – Funds will provide for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management. Non-routine activities include forest management (\$20,000) and cultural resources site monitoring and protection (\$70,000).

WS: N/A

OTHER INFORMATION: Project has prevented \$273.8 million in flood damages since placed in service in 1942. The project provides recreation opportunities to an average of 272,000 visitors yearly and consists of 4,394 fee owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$286,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled

Division: North Atlantic

District: New England

Birch Hill Dam, MA

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Buffumville Lake, MA

AUTHORIZATION: The Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Buffumville Lake is located along the Little River, 1.3 miles upstream from its confluence with the French River and about 8 miles northeast of Southbridge, Massachusetts. The project is located in the Towns of Oxford and Charlton, Massachusetts. Buffumville Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 3,255 feet long with a maximum height of 66 feet; an earth-filled dike with stone slope protection, a total length of 610 feet and a maximum height of 15 feet; an uncontrolled ogee weir spillway, 220-feet wide with a maximum discharge capacity of 29,800 cubic-feet-per-second; and three rectangular outlet conduits with one control gate. The reservoir provides a flood storage capacity of 12,720 acre-feet to control runoff from its net drainage area of 26.5 square miles.

FISCAL YEAR 2016 ALLOCATION: \$686,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$740,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. There is \$103,000 for sustainability work to install a solar array.

BUDGETED AMOUNT FOR FY 2018: M: \$75,000 O: \$858,000 T: \$933,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$719,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$71,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$143,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$209.0 million in flood damages since placed in service in 1958. The project provides recreation opportunities to an average of 237,000 visitors each year and consists of 480 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$127,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Buffumville Lake, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Cape Cod Canal, MA

AUTHORIZATION: Rivers and Harbors Acts of 1927, 1935, 1945 and 1958; and amended by the Public Works Administration Program in 1933 and 1935, the Permanent Appropriations Repeal Act of 1934, and the Emergency Relief Program in 1935. The canal was purchased from the Boston, Cape Cod and New York Canal Company in accordance with a contract in 1921.

LOCATION AND DESCRIPTION: Cape Cod Canal is located about 50 miles south of Boston, Massachusetts and extends across a narrow neck of land joining Cape Cod to the mainland. The project provides for a channel 32-feet deep and 540- to 800-feet wide extending about 17.5 miles from deep water in Buzzards Bay to deep water in Cape Cod Bay. The project also includes navigation improvements in East Boat Basin and Onset Bay, and construction of two high-level highway bridges and a vertical lift railroad bridge, which cross the canal.

FISCAL YEAR 2016 ALLOCATION: \$10,518,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$810,000 to conduct required inspections of the Bourne Highway Bridge and the Railroad Bridge. In addition, non-routine work was funded for \$1,000,000 to continue the major rehabilitation study of the canal highway bridges.

FISCAL YEAR 2017 ALLOCATION: \$10,552,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$300,000 to conduct required inspection of the Sagamore Highway Bridge. In addition, non-routine work is being funded for \$1,170,000 to replace the elevators, complete steel repairs on the vertical lift railroad bridge, and complete concrete repairs and weir replacement at the Herring Run. There is a total of \$80,000 for sustainability work on this project to install LED lights on the Bourne Bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$6,562,000 O: \$7,191,000 T: \$13,753,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$11,283,000 – Provides for routine operation and maintenance of the project, including the canal, two highway bridges and a vertical lift railroad bridge. These funds include \$770,000 to conduct required inspections of the Bourne Highway Bridge and the Railroad Bridge.

FRM: N/A

RC: \$2,313,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$157,000 – Provides for routine operation and maintenance. Activities include vegetation plantings, wildlife habitat preservation and managing nature trails.

WS: N/A

OTHER INFORMATION: The Bourne and Sagamore Highway Bridges are the only two vehicular accesses from mainland Massachusetts to Cape Cod and are crossed by nearly 40 million vehicles annually. In 2012, waterborne commerce totaled 8.8 million tons. The project provides recreation opportunities to an average of 2,951,000 visitors each year and consists of 1,655 fee-owned acres of land.

Division: North Atlantic

District: New England

Cape Cod Canal, MA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,015,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Charles River Natural Valley Storage Areas, MA

AUTHORIZATION: The Water Resources Development Act of 1974.

LOCATION AND DESCRIPTION: The Charles River is located in eastern Massachusetts and extends inland about 80 miles from Boston Harbor southwesterly towards the Massachusetts and Rhode Island state line. The watershed covers approximately 307 square miles and project lands are located in 16 communities. The project provides for Federal acquisition and perpetual protection of 17 crucial natural valley storage areas totaling 8,115 acres in the middle and upper portion of the watershed. These areas provide natural flood storage to minimize the potential of flood losses within the watershed. Land acquisition began in May 1977 and was completed in September 1983.

FISCAL YEAR 2016 ALLOCATION: \$362,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$332,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$87,000 O: \$266,000 T: \$353,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$165,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, boundary surveys and real estate inspections.

RC: \$40,000 – Provides for routine operation and maintenance. Activities including maintaining project trails for visitor safety.

H: N/A

EN: \$148,000 – Provides for minimal routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$6.8 million in flood damages since the project was completed in 1983. The project provides recreation opportunities to an average of 183,000 visitors per year and consists of 3,221 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$91,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Charles River Natural Valley
Storage Areas, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Conant Brook Dam, MA

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Conant Brook Dam is located along Conant Brook, a tributary of Chicopee Brook, about two miles southeast of Monson, Massachusetts, in Hampden County. Conant Brook Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,050-feet long with a maximum height of 85 feet; an earth-filled dike 980 feet in length; an uncontrolled ogee weir spillway, 100-feet wide with a maximum discharge capacity of 10,750 cubic-feet-per-second; and a 36-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 3,740 acre-feet, to control runoff from its net drainage area of 7.8 square miles.

FISCAL YEAR 2016 ALLOCATION: \$588,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$175,000 to conduct required periodic inspection and assessment of the project. In addition, non-routine work was funded for \$56,000 to perform seepage and settlement evaluations, and \$60,000 to design an access road to the toe of the dam.

FISCAL YEAR 2017 ALLOCATION: \$703,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$420,000 to build an access road to the toe of the dam.

BUDGETED AMOUNT FOR FY 2018: M: \$106,000 O: \$389,000 T: \$495,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$425,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. In addition, upgrade utilities at dam site (\$92,000).

RC: \$50,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$20,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$8.4 million in flood damages since placed in service in 1966. The project provides recreation opportunities to an average of 16,000 visitors each year and consists of 469 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$53,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Conant Brook Dam, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: East Brimfield Lake, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: East Brimfield Lake is located along the Quinebaug River, about 64.5 miles upstream from the confluence of the Quinebaug River with the Shetucket River. The Towns of Holland, Sturbridge and Brimfield, Massachusetts are located adjacent to project. The project is part of a comprehensive system of flood control projects within the Thames River Basin. The reservoir provides flood storage capacity of 32,220 acre-feet to control runoff from a drainage area of 67.5 square miles.

FISCAL YEAR 2016 ALLOCATION: \$764,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$250,000 to paint the project's service bridge.

FISCAL YEAR 2017 ALLOCATION: \$687,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$155,000 to conduct dam safety investigations including evaluating the riprap from wave erosion protection, checking the conduit for erosion and performing hydraulic investigation of the conduit.

BUDGETED AMOUNT FOR FY 2018: M: \$263,000 O: \$723,000 T: \$986,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$902,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$6,000 perform required bridge inspections. In addition, non-routine work will be funded for \$220,000 to install piezometers in the main dam.

RC: \$51,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$33,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: East Brimfield Lake has prevented an estimated \$237.8 million in flood damages since placed in service in 1960. Project provides recreation opportunities to an average of 62,000 visitors each year and consists of 2,070 fee owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$100,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Hodges Village Dam, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Hodges Village Dam is located along the French River, about 15 miles upstream from its confluence with the Quinebaug River in Massachusetts. The project is located in the Town of Oxford, Massachusetts. Hodges Village Dam is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$614,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work is funded for \$40,000 to complete dam safety recommendations including developing tail water elevations and to fill and abandon relief wells.

FISCAL YEAR 2017 ALLOCATION: \$609,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$4,000 to conduct required bridge inspections.

BUDGET AMOUNT FOR FY 2018: M: \$237,000 O: \$608,000 T: \$845,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$625,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections, patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes.

RC: \$68,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$152,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 13,250 acre-feet to control runoff from its net drainage area of 31.1 square miles. Project has prevented an estimated \$253.2 million in flood damages since placed in service in 1959. The project provides recreation opportunities to an average of 193,000 visitors each year and consists of 867 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$35,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Knightville Dam, MA

AUTHORIZATION: Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Knightville Dam is located on the Westfield River, about 27.5 miles above its junction with the Connecticut River and four miles north of Huntington, Massachusetts. Knightville Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and a gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$833,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$200,000 to complete concrete repairs on the toe wall.

FISCAL YEAR 2017 ALLOCATION: \$1,019,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$8,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$240,000 to install piezometers and \$165,000 for repairs to the Indian Hollow Bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$350,000 O: \$704,000 T: \$1,054,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$843,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections and \$190,000 to perform required periodic inspection and assessment of the project. In addition, funds are provided to install new log boom logs (\$80,000).

RC: \$50,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$161,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The project reservoir provides a flood storage capacity of 49,000 acre-feet to control runoff from its net drainage area of 162 square miles. Project has prevented an estimated \$680.7 million in flood damages since placed in service in 1941. The project provides recreation opportunities to an average of 42,000 visitors each year and consists of 2,430 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$232,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Littleville Lake, MA

AUTHORIZATION: The Flood Control Act of 1958

LOCATION AND DESCRIPTION: Littleville Lake is located along the Middle Branch of the Westfield River, about one mile above its confluence with the main stem of the Westfield River and two miles north of Huntington, Massachusetts. Littleville Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway, a gate-controlled outlet for flood control and gate-controlled outlet for water supply.

FISCAL YEAR 2016 ALLOCATION: \$782,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$10,000 to perform required bridge inspections. In addition, non-routine work was funded for \$180,000 to study the saddle dam abutment and vicinity.

FISCAL YEAR 2017 ALLOCATION: \$742,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$160,000 to replace broken retaining straps on the water supply conduit.

BUDGETED AMOUNT FOR FY 2018: M: \$363,000 O: \$628,000 T: \$991,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$854,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$20,000 to conduct required bridge inspections and \$90,000 to conduct required periodic inspection of the project. In addition, non-routine work will be funded for \$220,000 to rebuild limitorques 1, 2 and 3 in the water tower.

RC: \$49,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$84,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: \$4,000 – Provides for routine operation and maintenance. This work includes additional operation of the gates for water releases during low flow periods of time and coordinating with local entities pertaining to these releases.

OTHER INFORMATION: The project reservoir provides a flood storage capacity of 32,400 acre-feet to control runoff from its net drainage area of 52.3 square miles. The project has prevented an estimated \$236.8 million in flood damages since placed in service in 1965. The project provides recreation opportunities to an average of 33,000 visitors each year and consists of 1,567 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$183,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: New Bedford Hurricane Barrier, MA

AUTHORIZATION: The Flood Control Act of 1958

LOCATION AND DESCRIPTION: New Bedford Hurricane Barrier is located in Buzzards Bay in southeastern Massachusetts, along the north shore of Clark Cove and at the mouth of New Bedford Harbor. The project is located in the Cities of New Bedford and Fairhaven, Massachusetts. The project consists of an earth-filled dike, which extends 4,500 feet across New Bedford and Fairhaven Harbor in the vicinity of Palmer Island, with a 150-foot wide gate opening to accommodate navigation. The project also includes an earth-filled dike extension, 3,600 feet long, which protects the western waterfront, as well as 5,800 feet of earthen dike to protect Clark Cove and 3,100 feet of earthen dike to protect Fairhaven. The project is operated and maintained by the City of New Bedford, with the exception of the navigation gate, which is operated and maintained by the US Army Corps of Engineers.

FISCAL YEAR 2016 ALLOCATION: \$798,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$90,000 to perform required periodic inspection of the project. In addition, non-routine work was funded for \$190,000 to replace the timber fenders.

FISCAL YEAR 2017 ALLOCATION: \$489,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,065,000 O: \$237,000 T: \$1,302,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,302,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$56.5 million in flood damages since placed in service in 1966.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$265,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Newburyport Harbor, MA

AUTHORIZATION: Rivers and Harbors Acts of 1880 (21 Stat. 180), 1910 (P.L. 61-264) and 1945 (P.L. 79-14); Section 1002 of the Water Resources Development Act of 1986 (P.L. 99-662) and Section 116(3) of the Water Resources Development Act of 1992 (P.L. 102-580).

LOCATION AND DESCRIPTION: Newburyport Harbor is located at the mouth of the Merrimack River, about 4 miles south of the Massachusetts and New Hampshire state line. The project provides for a 15-foot entrance channel, then a 9-foot channel through Newburyport Harbor to a 9-foot turning basin at the mouth of the Merrimack River. The project includes construction of north and south stone jetties at the entrance to Newburyport Harbor. The project was completed in August 1958 and last maintained in October 2010. Natural shoaling processes have reduced available depths by as much as 5 feet in parts of the channel and turning basin making navigation difficult. A sand bar has formed in the entrance channel and under certain tidal and weather conditions vessels are at risk for damage and capsizing from breaking waves.

FISCAL YEAR 2016 ALLOCATION: \$1,007,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to repair the jetties that were damaged as a result of Sandy.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$200,000 O: \$0 T: \$200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$200,000 – Funds will be used to complete environmental coordination and prepare plans and specifications for proposed maintenance dredging of about 180,000 cubic yards of material from the project to restore authorized dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Federal channel provides access to public and private boating facilities located at the mouth of the Merrimack River. Thousands of recreational and small commercial fishing vessels use the river and harbor. Proposed maintenance dredging would involve the removal of about 180,000 cubic yards of material by hopper dredge, with disposal at a near shore site off of Plum Island. Environmental restrictions require this work to be performed between 2 November and 14 March.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Newburyport Harbor, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Plymouth Harbor and Long Beach Dike, MA

AUTHORIZATION: Rivers and Harbors Acts of 1899 (21 Stat. 180), 1913 (P.L. 61-264) and 1962 (P.L. 79-14); Section 1002 of the Water Resources Development Act of 1986 (P.L. 99-662) and Section 116(3) of the Water Resources Development Act of 1992 (P.L. 102-580).

LOCATION AND DESCRIPTION: Plymouth Harbor is located in the Town of Plymouth, about 30 miles south of Boston, Massachusetts. The project consists of an 18-foot entrance channel, a 15-foot inner channel, a 3,500 linear foot rubble stone breakwater, a 360 linear foot causeway used for recreational fishing, an 8-foot anchorage area and placement of approximately 2.5 miles of stone riprap along Plymouth Long Beach, a barrier beach which protects Plymouth Harbor from severe weather in Cape Cod Bay. The Plymouth Harbor Federal navigation project was completed in 1967 and was last dredged in 1988. Portions of the 18-foot' entrance channel have shoaled as much as 10 feet creating hazardous conditions for vessels navigating the channel. Commercial fishing vessels are delayed regularly due to shoal conditions. Maintenance dredging of about 384,000 cubic yards of material is needed to restore the Federal navigation project to its authorized dimensions. Long Beach Dike was last rehabilitated in 1971. Several sections of the riprap have been damaged by winter storms. Failure to repair the deteriorated sections would leave the barrier beach susceptible to breaching and expose the harbor to significant shoaling and storm damage. Breaching of the structure would also cut off evacuation routes and prevent life-saving equipment from reaching residents living behind the structure.

FISCAL YEAR 2016 ALLOCATION: \$690,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to award a contract to repair a portion of the Plymouth Long Beach Dike which was damaged during Blizzard Juno.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$500,000 O: \$0 T: \$500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$500,000 – Funds of \$300,000 will be used to complete environmental coordination and prepare plans and specifications for proposed maintenance dredging of about 384,000 cubic yards of material from the 18-foot outer channel with placement at the Mass Bay Disposal Site. Funds of \$200,000 will be used to complete environmental coordination and prepare plans and specifications for repair of Long Beach Dike.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The allowable dredging window extends from 1 October through 31 January. Approximately 90 commercial lobstermen operate from Plymouth Harbor, landing an average of 850,000 pounds per year.

Division: North Atlantic

District: New England

Plymouth Harbor, MA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$108,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Tully Lake, MA

AUTHORIZATION: The Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Tully Lake is located along the East Branch of the Tully River, about 3.9 miles above its junction with the Millers River. The project is located in Royalston, Massachusetts. Tully Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$644,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections. In addition, non-routine work was funded for \$25,000 to replace the office roof.

FISCAL YEAR 2017 ALLOCATION: \$911,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$8,000 to conduct required bridge inspections and \$95,000 to conduct required periodic inspection of the project. In addition, non-routine work is being funded for \$150,000 to complete repairs to the Doan Hill Road Bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$629,000 O: \$516,000 T: \$1,145,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$968,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$450,000 to complete repairs to the spillway bridge. Additional funds are provided to replace basin and project boilers (\$30,000).

RC: \$60,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$117,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 22,525 acre-feet to control runoff from its net drainage area of 50-square miles. Project has prevented an estimated \$85.5 million in flood damages since placed in service in 1949. The project provides recreation opportunities to an average of 119,000 visitors each year and consists of 1,258 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$112,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is 0.

Division: North Atlantic

District: New England

Tully Lake, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: West Hill Dam, MA

AUTHORIZATION: The Flood Control Act of 1944

LOCATION AND DESCRIPTION: West Hill Dam is located along the West River in Massachusetts, three miles above its confluence with the Blackstone River and 2.5 miles northeast of Uxbridge, Massachusetts. West Hill Dam is part of a comprehensive system of flood control projects within the Blackstone River Basin. The project consists of an earth-filled dam with rock slope protection, 2,400-foot long and a maximum height of 48 feet; four earth-filled dikes with rock and gravel slopes, totaling 1,910 feet in length; an ogee weir spillway, 50-foot long with a maximum discharge capacity of 8,900-cubic feet-per-second; and three rectangular outlet conduits.

FISCAL YEAR 2016 ALLOCATION: \$798,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$8,000 to conduct required bridge inspections and \$95,000 to conduct required periodic inspection of the project.

FISCAL YEAR 2017 ALLOCATION: \$727,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$15,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$50,000 to complete repairs to the project spillway bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$242,000 O: \$539,000 T: \$781,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$650,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. Additional funds provide for repairs to access road bridge (\$70,000).

RC: \$84,000 – Provides for routine operation and maintenance. Activities include maintenance of project trails and other recreation areas for visitor safety.

H: N/A

EN: \$47,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 12,440 acre-feet to control runoff from its net drainage area of 27.9 square miles. Project has prevented an estimated \$168.8 million in flood damages since placed in service in 1961. The project provides recreation opportunities to an average of 73,000 visitors each year and consists of 557 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$103,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

West Hill Dam, MA

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Westville Lake, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Westville Lake is located along the Quinebaug River, about 56.7 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Sturbridge and Southbridge, Massachusetts. Westville Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 560-feet long and a maximum height of 78 feet; an uncontrolled ogee weir spillway, 200-feet wide with a maximum discharge capacity of 24,500-cubic feet-per-second; and three rectangular outlet conduits with a control gate.

FISCAL YEAR 2016 ALLOCATION: \$597,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$15,000 to conduct required bridge inspections.

FISCAL YEAR 2017 ALLOCATION: \$572,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$625,000 O: \$445,000 T: \$1,070,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$983,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$15,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$205,000 to upgrade the electrical distribution system. Additional funds provided for access road repairs (\$254,000).

RC: \$51,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$36,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 11,100 acre-feet to control runoff from its net drainage area of 99.5 square miles. Project has prevented an estimated \$96.5 million in flood damages since placed in service in 1962. The project provides recreation opportunities to an average of 64,000 visitors each year and consists of 578 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$39,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

MICHIGAN

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channels in Lake St. Clair, MI

AUTHORIZATION: Rivers and Harbors Act of 1886, as amended by the Rivers and Harbors Acts of 1892, 1902 (PL 57-154), 1919 (PL 65-323), 1930 (PL 71-520), and 1935 (PL 74-409), and the Act of 21 March 1956 (PL 84-434)

LOCATION AND DESCRIPTION: Lake St. Clair is a high-use, deep draft harbor located in southeast Michigan. The northwest portion of the lake lies within the United States, and the southeast portion of the lake lies within Canada. Lake St. Clair is an expansive shallow basin containing one of the Great Lakes connecting channels running from the mouth of the St. Clair River to the head of the Detroit River. The channels in Lake St. Clair provide for an improved channel 800 feet wide and 14.5 miles long to a depth of 27.5 feet. Maintenance dredging is required in the upper end of the channels on a five-to-ten year cycle and was last dredged in 2012. Dredged material is placed in the Dickinson Island Disposal Facility.

FISCAL YEAR 2016 ALLOCATION: \$178,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation for navigation within the Channels in Lake St. Clair. Routine operation includes completion of project condition surveys at critical locations throughout the navigation channels and notification of any critical shoals within the channels.

FISCAL YEAR 2017 ALLOCATION: \$1,580,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance for navigation within the Channels in Lake St. Clair. Work will include completion of project condition surveys and maintenance dredging of critical shoaling within the channels.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$185,000 T: \$185,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$185,000 – Funding provides for routine operation for navigation including project condition surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Channels in Lake St Clair ships and receives over 48 million tons annually, and a loss of two feet of channel depth due to annual shoaling, channel blockages or deteriorated wave climate can result in increased transportation costs up to \$7.8 million annually.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Detroit

Channels in Lake St. Clair, MI

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Detroit River, MI

AUTHORIZATION: Rivers and Harbors Act of 1902 (PL57-154), as amended by the Rivers and Harbors Acts of 1905 (PL 58-215), 1907 (PL 59-168), 1910 (PL 61-264), 1913 (PL 62-429), 1919 (65-323), 1930 (PL 71-520), 1935 (PL 74-409), 1937 (PL 75-392), 1945 (PL 79-14), 1946 (PL 79-525), 1950 (PL 81-519), 1960 (PL 86-645), and 1968 (PL 90-483); the Act of 21 March 1956 (PL 84-434); and the Water Resources Development Acts of 1974 (PL 93-251) and 1986 (PL 99-662).

LOCATION AND DESCRIPTION: The Detroit River is one of the Great Lakes connecting channels, flowing south from Lake St. Clair to Lake Erie. A total of 76 miles of Federal channels are maintained, including up-bound and down-bound lanes. It also contains various water level and compensating dikes and structures. This river requires maintenance dredging on a one- to two-year cycle. Dredged material is disposed of at the Pointe Mouillee Confined Disposal Facility. The project also requires obstruction removal in the hard bottom channels on an annual basis.

FISCAL YEAR 2016 ALLOCATION: \$5,420,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation in the Detroit River. Work included project condition surveys, strike removal using government equipment, and disposal facility maintenance by contract to ensure the facility is prepared to accept future disposal of dredged material. FY 2016 funding was also used for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

FISCAL YEAR 2017 ALLOCATION: \$5,241,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine O&M for navigation in the Detroit River. Work will include project condition surveys, strike removal using government equipment, and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. FY 2017 funding will also be used for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$4,213,000 O: \$1,131,000 T: \$5,344,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,312,000 – Funding provides for routine O&M for navigation, including project condition surveys, strike removal and critical disposal facility maintenance.

FRM: N/A

RC: N/A

H: N/A

EN: \$32,000 – Funding provides for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

WS: N/A

OTHER INFORMATION: Annual shoaling can result in a loss of available channel depth between one and two feet and result in increased transportation costs of \$1 to 8 million annually. Commercial vessel operations and wave-and-ice action annually result in movement of adjacent stone or dislodging of rock

Division: Great Lakes and Ohio River

District: Detroit

Detroit River, MI

from channel bottoms that result in unsafe channel conditions for vessel movements.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$134,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grand Haven Harbor and Grand River, MI

AUTHORIZATION: Rivers and Harbors Act of 1866, as amended by the Rivers and Harbors Acts of 1880, 1890, 1892, 1930 (PL 71-520), 1937 (PL 75-392), and 1945 (PL 79-14); and the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: The harbor is located on the east shore of Lake Michigan, 108 miles northeast of Chicago, IL and 23 miles north of Holland, MI at the mouth of the Grand River. Grand Haven Harbor is a low-use, deep-draft commercial port that ships and receives over 965,000 tons annually, with the primary commodities being coal and aggregates. Approximately 40,000 cubic yards are dredged from the outer channel each year while the inner channel requires dredging on a two- to four-year cycle.

FISCAL YEAR 2016 ALLOCATION: \$3,266,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation within Grand Haven Harbor. Work included project condition surveys and maintenance dredging of both the outer and inner harbor. Funding for non-routine activities was used to award a contract to make repairs to the South Pier that was damaged by a major storm in October of 2014. FY 2016 funding was also used for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

FISCAL YEAR 2017 ALLOCATION: \$1,011,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation within Grand Haven Harbor. Work will include project condition surveys and maintenance dredging of the outer harbor. FY 2017 funding will also be used for maintaining compliance with the National Historic Preservation Act. In addition, funds have been provided for the south pier repairs (\$500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,100,000 O: \$12,000 T: \$1,112,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,100,000 – Funding provides for routine O&M for navigation including project condition surveys and maintenance dredging of the outer harbor.

FRM: N/A

RC: N/A

H: N/A

EN: \$12,000 – Funding provides for routine compliance with the National Historic Preservation Act and with the Historic Management Plan.

WS: N/A

OTHER INFORMATION: Loss of available channel depth due to annual shoaling typically averages between four and five feet and results in an estimated increase in transportation costs of between \$1.3 million and \$1.9 million annually. Grand Haven is a Harbor of Refuge and is home to the U.S. Coast Guard Sector Grand Haven Station. Adequate rail lines do not exist to deliver coal to the municipal

Division: Great Lakes and Ohio River

District: Detroit

Grand Haven Harbor and Grand River, MI

power plant which supplies power to over thirteen thousand customers.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$156,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Holland Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1852, as amended by the Rivers and Harbors Acts of 1867, 1899, 1905 (PL 58-215), 1930 (PL 71-520), 1935 (PL 74-409), and 1954 (PL 83-780); and the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: Holland Harbor is located on the east shore of Lake Michigan 95 miles northeast of Chicago, IL and 23 miles south of Grand Haven, MI. It is a low-use, deep-draft commercial harbor with project depths of 23 feet in the entrance and 21 feet in the inner channel and Lake Macatawa. There are approximately 5,500 feet of structures including breakwaters, piers, and revetments and approximately six miles of maintained channel. Maintenance dredging of the outer harbor is required on an annual basis, and the inner harbor requires dredging every two to four years. Dredged material from the outer harbor is used for shoreline nourishment.

FISCAL YEAR 2016 ALLOCATION: \$704,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation within Holland Harbor. Work included project condition surveys and maintenance dredging of the outer harbors.

FISCAL YEAR 2017 ALLOCATION: \$650,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation within Holland Harbor. Work will include project condition surveys and maintenance dredging of the outer harbor.

BUDGETED AMOUNT FOR FY 2018: M: \$1,600,000 O: \$0 T: \$1,600,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,600,000 – Funding provides for routine O&M for navigation, including maintenance dredging of both outer and inner harbor portions of the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Loss of available channel depth due to shoaling of the harbor mouth results in no alternate means to ship coal to a coal-fired power plant.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$58,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Inland Route, MI

AUTHORIZATION: River and Harbor Act of 3 September 1954

LOCATION AND DESCRIPTION: The Inland Route is a series of interconnected lakes and streams stretching across the northern tip of the Lower Peninsula of Michigan, and extending from Conway near Lake Michigan to Cheboygan on Lake Huron. The Crooked and Indian Rivers are connecting channels in the waterway. It is a shallow draft navigation project with 35 miles of maintained channel with project depth of 5 feet, and includes a navigation lock and fixed crest weir located at Alanson, MI. Maintenance dredging is required on a seven to twelve year cycle, and was last completed in 2009. The navigation lock is operated by the State of Michigan under a five year Memorandum of Agreement.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$615,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are provided for maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$50,000 O: \$0 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Funding provides for routine maintenance for the navigation lock, including annual mechanical inspection and minor repairs as necessary to ensure user and operator safety.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Keweenaw Waterway, MI

AUTHORIZATION: Rivers and Harbors Act of 1890, as amended by the Rivers and Harbors Acts of 1910 (PL 61-264), 1919 (PL 65-323), and 1935 (PL 74-409); and the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: The Keweenaw Waterway is located in the Keweenaw Peninsula of the upper peninsula of Michigan between Keweenaw Bay and Lake Superior. The west, upper entrance is 169 miles east of Duluth, MN and the east, lower entrance is approximately 60 miles west of Marquette, MI. It is a low-use, deep-draft commercial waterway with an authorized depth of 32 feet in the upper entrance channel, 28 feet in the lower entrance channel, and 25 feet in the interior channel. There are over 18 miles of maintained channels and approximately 24,300 feet of structures including breakwaters, piers, and revetments. Portions of the project are leased to State and local entities for recreational uses.

FISCAL YEAR 2016 ALLOCATION: \$28,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) of recreational facilities and compliance with State and Federal historic preservation requirements.

FISCAL YEAR 2017 ALLOCATION: \$906,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used to dredge critical shoaling in the Federal Channel, for routine operation and maintenance (O&M) of recreational facilities and compliance with State and Federal historic preservation requirements.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$12,000 T: \$12,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$12,000 – Funding provides for annual activities that are associated with compliance with State and Federal historic preservation requirements.

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$11,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Detroit

Keweenaw Waterway, MI

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manistee Harbor, MI

AUTHORIZATION: River and Harbor Act of 1867

LOCATION AND DESCRIPTION: Manistee Harbor is located on the east shore of Lake Michigan, 179 miles northeast of Chicago and 26 miles north of Ludington, MI. It is a low-use, deep-draft commercial harbor with project depths of 25 feet in the entrance and 23 feet in the river channel. It has over 6,000 feet of structures including breakwaters, piers, and revetments and includes about 2 miles of maintained channel. Maintenance dredging is required on a two- to three-year cycle, and was last completed in 2016.

FISCAL YEAR 2016 ALLOCATION: \$622,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance for navigation including completion of project condition surveys and maintenance dredging at critical locations throughout the navigation channel.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$663,000 O: \$0 T: \$663,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$663,000 – Funding provides for routine operation and maintenance for navigation, including completion of project condition surveys and maintenance dredging at critical locations throughout the navigation channel.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Loss of available channel depth due to shoaling of the harbor mouth results in increased transportation costs to several industries in the area including a coal fired power plant with no alternate means of receipt of coal. Not maintaining the project could result in a reduction of bulk commodities that pass through the harbor and generate \$18 million annually in direct revenue while supporting 237 direct, indirect, and induced jobs that produce over \$15M per year in personal income.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$14,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Monroe Harbor, MI

AUTHORIZATION: Act of 24 Feb 1835, as amended by the Rivers and Harbors Acts of 1844, 1872, 1875, 1886, 1930 (PL 71-520), and 1932 (PL 72-286); and the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: Monroe Harbor is located on the lower reach of the Raisin River, which empties into Lake Erie, 36 miles south of Detroit, MI. It is a deep draft commercial harbor with authorized depths of 21 feet in Lake Erie to the turning basin, which has an 18 foot depth. It has approximately 28,000 feet of maintained Federal channel. Maintenance dredging is required on a two to three year cycle. Dredged material is placed in Sterling State Park Confined Disposal Facility, located just north of the harbor.

FISCAL YEAR 2016 ALLOCATION: \$1,100,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for maintenance dredging to remove critical shoaling.

FISCAL YEAR 2017 ALLOCATION: \$500,000

DESCRIPTION OF WORK FOR FY 2017: Funding provides for CDF maintenance and site work to ensure facility can support disposal from future maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$650,000 O: \$0 T: \$650,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$650,000 – Funding provides for routine O&M for navigation, including maintenance dredging to remove critical shoaling.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Monroe Harbor ships and receives over 1.8 million tons annually, and a loss of two feet of channel depth due to annual shoaling, channel blockages or deteriorated wave climate can result in increased transportation costs up to \$3.2 million annually.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$49,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Detroit

Monroe Harbor, WI

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Saginaw River, MI

AUTHORIZATION: Rivers and Harbors Act of 1910 (PL 61-264), as amended by the Rivers and Harbors Acts of 1930 (PL 71-520), 1937 (PL 75-392), 1938 (PL 75-685), 1954 (PL 83-780), 1962 (PL 87-874) and 1965 (PL 89-298)

LOCATION AND DESCRIPTION: Saginaw River is a moderate-use, deep-draft commercial harbor formed by the union of the Tittabawassee and Shiawassee Rivers. It is 22-miles long and flows north into Saginaw Bay in Lake Huron. The cities of Saginaw and Bay City are located along the river. Authorized channel depths vary from 27 feet in the Saginaw Bay entrance channel, to 22 to 26 feet in the Saginaw River channel. There is a total of 26 miles of Federal channels and 5 turning basins. The project requires maintenance dredging on an annual basis, with dredged material from the channels in the bay placed in the Saginaw Bay Confined Disposal Facility (CDF). Material removed from the upper-river channel is placed in the Upper Saginaw Dredged Material Disposal Facility(DMDF).

FISCAL YEAR 2016 ALLOCATION: \$4,747,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation. Activities included project condition surveys, maintenance dredging to provide minimum functional depth at the most critical portions of this Federal channel as well as removal of a portion of backlog shoaling, and ground water sampling at the Upper Saginaw DMDF

FISCAL YEAR 2017 ALLOCATION: \$3,973,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation. Activities will include project condition surveys, maintenance dredging to provide minimum functional depth at the most critical portions of the navigation channel, ground water sampling at the Upper Saginaw DMDF and maintenance of the Bay CDF dikes.

BUDGETED AMOUNT FOR FY 2018: M: \$3,325,000 O: \$719,000 T: \$4,044,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,044,000 – Funding provides for routine O&M for navigation, including project condition surveys, maintenance dredging to provide minimum functional depth at the most critical portions of the navigation channel, ground water sampling at the Upper Saginaw DMDF and E&D in preparation for the next incremental dike raising of the Bay CDF.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Annual shoaling can result in a loss of channel depth between one and two feet and is estimated to increase transportation costs of up to \$4 million annually. Bulk commodities that pass through Saginaw River generate approximately \$306,000,000 annually in direct revenue while supporting 2,435 jobs.

Division: Great Lakes and Ohio River

District: Detroit

Saginaw River, MI

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$139,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sebewaing River, MI

AUTHORIZATION: Rivers and Harbors Act of 1896; and Flood Control Act of 1941 (PL 77-228).

LOCATION AND DESCRIPTION: Sebewaing River is located on Saginaw Bay in the thumb of Michigan on the west shore of Lake Huron, about 20 miles northeast of the mouth of the Saginaw River. It is a low-use, shallow-draft recreational navigation project and a flood and coastal storm damage reduction project. The navigation project has an authorized depth of eight feet with 15,000 feet of maintained Federal channel. The flood and coastal storm damage reduction project includes 11,000 feet of levees and 1,900 feet of floodwalls. The operation and maintenance (O&M) of both the navigation portion and the flood control portion is a Federal responsibility.

FISCAL YEAR 2016 ALLOCATION: \$40,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine O&M of the flood control project and support to annual, spring ice-breaking activities required to alleviate ice jams that could cause flooding.

FISCAL YEAR 2017 ALLOCATION: \$52,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine O&M of the flood control project and support to annual, spring ice-breaking activities required to alleviate ice jams that could cause flooding.

BUDGETED AMOUNT FOR FY 2018: M: \$22,000 O: \$32,000 T: \$54,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$54,000 – Funding provides for routine O&M of the flood control project and support of ice-breaking activities required to alleviate ice jam related flooding.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$28,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Detroit

Sebewaing River, MI

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Clair River, MI

AUTHORIZATION: Act of 8 Jul 1856, as amended by the Rivers and Harbors Acts of 1868, 1873, 1892, 1930 (PL 71-250), 1945 (PL 79-14), and 1946 (PL 79-525); the Act of 21 Mar 1956 (PL 84-434); and the Water Resources Development Acts of 1974 (PL 93-251) and 1986 (PL 99-662).

LOCATION AND DESCRIPTION: St. Clair River serves the ports of Marysville, Marine City, and St. Clair, MI, and includes 44 miles of Federal channels. St. Clair River is one of the Great Lakes connecting channels that flows south from Lake Huron and discharges into Lake St. Clair. It is a high-use, deep-draft commercial harbor with authorized depths from 27 to 30 feet. Maintenance dredging is required on a two- to three-year cycle. Dickinson Island confined disposal facility has provided a suitable placement site for all material dredged from the St. Clair River.

FISCAL YEAR 2016 ALLOCATION: \$658,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation in the St. Clair River and included project condition surveys and strike removal.

FISCAL YEAR 2017 ALLOCATION: \$680,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation in the St. Clair River and will include project condition surveys and strike removal.

BUDGETED AMOUNT FOR FY 2018: M: \$483,000 O: \$216,000 T: \$699,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$699,000 – Funding provides for routine O&M for navigation including project condition surveys and strike removal.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Commercial vessel operations, wave, and ice action annually result in rock being dislodged from channel bottoms, resulting in unsafe channel conditions for vessel movements. A loss of available channel depth between one and two feet will result in estimated increased transportation costs from \$4.7 million to \$15.8 million, annually. Bulk commodities that pass through the St. Clair River generate approximately \$1,830,000,000 annually in direct revenue while supporting 41,000 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$31,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Detroit

St. Clair River, MI

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Joseph Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1875, as amended by the Rivers and Harbors Acts of 1880, 1899, 1935 (PL 74-409), 1945 (PL 79-14), and 1958 (PL 85-500); and the Acts of 2 June 1937 (PL 75-130), and 5 August 1963 (PL 88-88).

LOCATION AND DESCRIPTION: St. Joseph Harbor is located on the east shore of Lake Michigan, 60 miles east of Chicago, Illinois, and 24 miles south of South Haven, Michigan. It is a deep draft commercial project with project depths ranging from 18 to 21 feet. St. Joseph Harbor includes approximately 2 miles of Federal channels. St. Joseph Harbor also has approximately 3,750 feet of maintained structures, including breakwaters, piers, and revetments..

FISCAL YEAR 2016 ALLOCATION: \$1,427,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance for navigation including completion of project condition surveys and maintenance dredging of both the inner and outer harborl.

FISCAL YEAR 2017 ALLOCATION: \$750,000

DESCRIPTIONS OF WORK FOR FY 2017: NFY 2017 funding will be used for routine operation and maintenance for navigation including completion of project condition surveys and maintenance dredging of the outer harbor.

BUDGETED AMOUNT FOR FY 2018: M: \$765,000 O: \$0 T: \$765,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$765,000 – Funding provides for routine operation and maintenance for navigation, including completion or project condition surveys and maintenance dredging of the outer harbor.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Loss of available channel depth due to annual shoaling typically averages between four and five feet which results in increased transportation costs of between \$3.6 million and \$5.5 million annually. St. Joseph is a Harbor of Refuge and is home to the U.S. Coast Guard Station St. Joseph which provides search & rescue, ice rescue and homeland security missions.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$148,000. There was an additional \$13,500 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Marys River, MI

AUTHORIZATION: Act of 8 Jul 1856, as amended by the Rivers and Harbors Acts of 1870, 1886, 1892, 1902 (PL 57-157), 1905 (PL 58-215), 1907 (PL 59-168), 1909 (PL 60-317), 1912 (PL 62-241), 1915 (PL 63-291), 1922 (PL 67-362), 1927 (PL 69-560), 1930 (PL 71-520), 1935 (PL 74-409), 1945 (PL 79-14), and 1946 (PL 79-525); the Acts of 7 Mar 1942 (PL 77-490), 21 Mar 1956 (PL 84-434), and 9 Jul 1956 (PL 84-663); and the Water Resources Development Acts of 1986 (PL 99-662), 1990 (PL 101-640), 1996 (PL 104-303), 1999 (PL 160-53), and 2007 (PL 110-114).

LOCATION AND DESCRIPTION: St. Marys River is one of the Great Lakes' connecting channels and is 75-miles long. The river flows southeast from the eastern end of Lake Superior into the northern end of Lake Huron along the border between the State of Michigan and the Canadian Province of Ontario. This high-use, deep-draft commercial channel includes 75 miles of maintained channels with depths varying from 27 to 29 feet in the St. Marys River, Lake Superior and Lake Huron approaches. This project also includes two active locks (one 110-foot by 1200-foot chamber and one 80-foot by 800-foot chamber, both with a 21 foot lift), two approach canals, a hydropower plant, and a visitor center.

FISCAL YEAR 2016 ALLOCATION: \$41,748,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) of the project visitor center, routine O&M of two active navigation locks, project condition surveys, strike removal and repairs to navigation channel guide walls, and routine O&M of the Federal hydropower plant. In addition, non-routine FY 2016 funding was used to award construction contracts for continued repairs to the West Center Pier, replacement of the Poe/MacArthur Lock gate pendants, repairs to the MacArthur Lock tainter valve bulkheads, rehabilitation of the electric control system for the Poe Lock, and replace embedded anchorages at the Poe Lock. Additional funds were used to complete plans and specifications for replacement of miter and quoin blocks at Poe Lock and completion of an ongoing major rehabilitation study for the locks.

FISCAL YEAR 2017 ALLOCATION: \$35,249,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding is being used for routine operation and maintenance of the project visitor center, routine O&M of two active navigation locks, project condition surveys, critical channel strike removal, completion of repairs to navigation channel guide walls, and routine O&M of the Federal hydropower plant. In addition, non-routine FY 2017 funding is being used to award construction contracts for repairs to the miter and quoin blocks on the Poe Lock (\$2,900,000) and continued repairs to the West Center Pier (\$3,000,000), engineering and design for replacement/upgrade of existing plant SCADA and embedded RTUs (\$367,000), replace/upgrade existing plant excitation and governor systems digital controllers (\$500,000), replace stoplog lifting beams for the MacArthur and Poe Locks (\$900,000), complete design and award contract for repairs to the embedded anchorages for Gate 2 and 5 of the MacArthur Lock (\$2,500,000), and perform engineering and design for the steamplant rehabilitation (\$300,000).

BUDGETED AMOUNT FOR FY 2018: M: \$24,666,000 O: \$13,774,000 T: \$38,440,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$29,481,000 – Funds will be used for routine operation and maintenance of two active navigation locks, project condition surveys, critical channel strike removal, and dewatering of the locks for inspections and planned winter maintenance. In addition, non-routine repairs will be made to the MacArthur Lock embedded gate anchorages (\$3,300,000), the MacArthur Lock dewatering bulkheads (\$2,250,000), the west center pier repair (\$3,050,000) and engineering and design for the Davis pump well rehab (\$300,000).

Division: Great Lakes and Ohio River

District: Detroit

St. Marys River, MI

FRM: N/A

RC: \$289,000 – Funds will be used for routine operation and maintenance of the project visitor center.

H: \$6,314,000 – Funds will be used for routine operation and maintenance of two hydropower facilities that house four generating units and replacement/upgrade of SCADA and embedded RTUs. Also, Unit 10 powerhouse structure and equipment assessment (\$350,000), and hydropower maintenance and replacement of unit 3A trash rack (\$102,000).

EN: \$43,000 – Funds will be used for routine activities associated with compliance with State and Federal historic preservation requirements.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$2,313,000 for routine operation and maintenance of project features jointly used by business lines: HYD – 10%, NAV – 89%, and REC – 1%. Funds ensure safe and reliable operation of the navigation locks and connecting channels located in the St. Marys River, which accommodate over 80 million tons of cargo annually. Bulk commodities that pass through St Marys River generate approximately \$1,700,000,000 annually in direct revenue while supporting 38,380 jobs. A one- to two-foot reduction in available draft due to any channel restrictions results in an estimated increase in transportation costs of \$6.7 to \$20.6 million annually. A thirty-day closure of the Soo Locks can result in up to \$160 million in increased transportation costs. The visitor center and park accommodate an annual visitation in excess of 400,000 people. The Federal hydropower plant with a 20-megawatt capacity provides all of the power for operation of the Soo Locks complex and supports the base load for the area grid, meeting up to 15-percent of regional power demand.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$581,000. There was an additional \$40,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

MINNESOTA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Big Stone Lake and Whetstone River, MN and SD

AUTHORIZATION: Flood Control Act of 1965; Rivers and Harbors Act of 1965

LOCATION AND DESCRIPTION: The project is on the Minnesota River near Ortonville and Odessa, Minnesota, and Bigstone City, South Dakota, at the outlet of Bigstone Lake and in Bigstone and Lac qui Parle Counties, Minnesota, and Grant County, South Dakota. The authorized project provides for wildlife conservation and development, flood control, and recreation. It also includes a dam on the Minnesota River near Odessa, Minnesota, which has created a conservation pool of 2,800 acres for wildlife purposes. Upstream improvements include construction of bank protection and related work along the lower six mile reach of Whetstone River in South Dakota, modification of the existing dam and silt barrier at the outlet of Bigstone Lake, and channel improvement on the Minnesota River for three miles below the outlet control dam.

FISCAL YEAR 2016 ALLOCATION: \$254,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$257,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$290,000 T: \$290,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$273,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: N/A

H: N/A

EN: \$17,000 – Funds will be used for routine operations and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: Highway 75 Dam at Big Stone Lake project located near Odessa, MN, impounds water on the Minnesota River to form the Bigstone National Wildlife Refuge operated by the U.S. Fish & Wildlife Service. The project provides flood control benefits on the Minnesota River mainstem in conjunction with the Lac qui Parle project downstream and has prevented over \$3.5 million in damages since construction.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Duluth-Superior Harbor, MN, WI

AUTHORIZATION: Rivers and Harbors Act of 1896, as amended by the Rivers and Harbors Acts of 1902 (PL 57-154), 1907 (PL 59-168), 1916 (PL 64-108), 1919 (PL 65-323), 1927 (PL 69-560), 1930 (PL 71-520), and 1960 (PL 86-645); and the Acts of 28 May 1908 (PL 60-153), 16 Jul 1952 (PL 82-568), and 4 Oct 1961 (PL 87-388); and the Water Resource Development Acts of 1974 (PL 93-251) and 1986 (PL 99-662).

LOCATION AND DESCRIPTION: Located on the western end of Lake Superior, Duluth-Superior Harbor is a deep-draft, high-use commercial harbor with over 18 miles of maintained channel. Maintenance dredging is required on an annual basis. Dredged material has historically been placed in the Erie Pier Confined Disposal Facility (CDF) which is near capacity and requires fill management activities to ensure its sustainability. In 2012, the USACE began a three-year pilot study of placing dredged material in the 21st Avenue Embayment, a beneficial use project that will provide ecosystem benefits. The project also includes over 10,000 feet of structures including breakwaters, piers, and revetments. The project also includes the Lake Superior Maritime Museum and Visitor Center.

FISCAL YEAR 2016 ALLOCATION: \$7,075,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation within the Duluth-Superior Harbor. Work included project condition surveys, navigation structure repairs using government equipment, maintenance dredging to provide minimum functional depth at the most critical portions of this Federal channel, and continuing efforts on development of asset renewal processes and information for Great Lakes navigation structures. FY 2016 funding was also used for routine O&M of the project's regional visitor center and the Lake Superior maritime museum, and compliance with State and Federal historic preservation requirements.

FISCAL YEAR 2017 ALLOCATION: \$7,166,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine O&M for navigation within the Duluth-Superior Harbor. Work will include project condition surveys, navigation structure repairs using government equipment, and maintenance dredging to provide minimum functional depth at the most critical portions of this Federal channel. FY 2017 funding will also be used for routine O&M of the project's regional visitor center and the Lake Superior maritime museum, and compliance with State and Federal historic preservation requirements.

BUDGETED AMOUNT FOR FY 2018: M: \$6,183,000 O: \$1,411,000 T: \$7,594,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,898,000 – Funding provides for routine O&M for navigation, including project condition surveys and navigation structure repairs using government equipment.

FRM: N/A

RC: \$638,000 – Funding provides for routine O&M of the project's Class A (regional) visitor center and the Lake Superior maritime museum.

H: N/A

EN: \$58,000 – Funding provides for annual activities associated with compliance with State and Federal historic preservation requirements, including investigation and coordination of operation and maintenance activities and document preservation.

Division: Great Lakes and Ohio River

District: Detroit

Duluth-Superior Harbor, MN, WI

WS: N/A

OTHER INFORMATION: Duluth-Superior Harbor ships and receives over 40 million tons annually, and a loss of two feet of channel depth due to annual shoaling, channel blockages or deteriorated wave climate can result in increased transportation costs up to \$13 million annually. The visitor center and park has annual visitation in excess of 600,000 and provides educational opportunities related to commercial navigation and overall Corps of Engineers missions.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$49,000. There was an additional \$16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lac qui Parle Lakes, Minnesota River, MN

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: The Lac qui Parle project consists of four water control structures on the Chippewa and Minnesota Rivers and is located near Montevideo, Minnesota. The project lays along Marsh Lake and Lac qui Parle and the Minnesota River between head of Marsh Lake and Granite Falls, Minnesota. The project includes a main dam at the outlet of Lac qui Parle Lakes designed to control the Marsh Lake Reservoir. There is also a dam and diversion channel near Watson, Minnesota designed to divert Chippewa River floodwaters into Lac qui Parle Reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,837,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities. Non-routine maintenance item includes rehabilitation of gate operators.

FISCAL YEAR 2017 ALLOCATION: \$1,341,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities. Non-routine activities include completion of the design work for rehabilitation of the gate operators (\$450,000).

BUDGETED AMOUNT FOR FY 2018: M: \$57,000 O: \$1,058,000 T: \$1,115,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,027,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: \$58,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$30,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project provides flood protection for Montevideo and areas downstream on the Minnesota and Chippewa Rivers. Since construction, the project has prevented over \$37 million in damages.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$33,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Minnesota River, MN

AUTHORIZATION: Rivers and Harbors Acts of 1892, 1909 and 1958

LOCATION AND DESCRIPTION: The Minnesota River begins in Big Stone Lake, Minnesota and South Dakota, and flows southeasterly about 224 miles to Mankato, Minnesota, thence northeasterly about 106 miles to join the Mississippi River opposite of St. Paul, Minnesota. The project is a channel of 9-foot depth below the low control pool from the mouth at the Mississippi River confluence to river mile 14.7, one-half mile above the railway bridge at Savage, MN, and 4-foot depth from river mile 14.7 to 25.6 at Shakopee, Minnesota.

FISCAL YEAR 2016 ALLOCATION: \$109,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$260,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$251,000 O: \$12,000 T: \$263,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$263,000 – Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Minnesota River is a major agricultural tributary that transports approximately one-fourth of the 16 million tons annually shipped in and out of the state of Minnesota. The Minnesota Department of Transportation has indicated that this has an annual economic value in excess of \$362 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$200,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVP Portion), MN

AUTHORIZATION: Rivers and Harbors Act of 1930, P.L. 71-520 and Flood Control Act of 1944, P.L. 78-534

LOCATION AND DESCRIPTION: The project extends from Minneapolis, MN to Guttenberg, IA with 244 miles of 9-foot channel for high waterway navigation, 13 locks and dams, and 14 commercial or small boat harbors. The project includes a recreation area at Blackhawk Park located at river mile 670 below La Crosse, WI, and natural resource management for approximately 22,000 acres above normal pool elevation.

FISCAL YEAR 2016 ALLOCATION: \$60,008,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, which included fleet maintenance, dredging, environmental compliance, water control and analysis, and maintenance of lock and dam (L&D) structures. Budgeted non-routine high priority maintenance items included dewatering of L&D 9 to allow for winter maintenance activities; contract for replacement of four vertically framed miter gates at L&D 2 due to cracking and metal fatigue; and installation of sheetpile wall at L&D 7 auxiliary lock chambers, that includes a walkway to get from the I-wall to the riverwall. Additional funding in the amount of \$1,800,000 was used for L&D 7 auxiliary lock chambers, and preconstruction engineering and design for rehabilitation of L/D 5-6 guidewall cribs.

FISCAL YEAR 2017 ALLOCATION: \$74,526,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance (O&M) activities, including fleet maintenance, dredging, environmental compliance, water control and analysis, and maintenance of lock and dam (Lock and Dam) structures. Non-routine maintenance items include Lock and Dam 5-6 guidewall crib rehabilitation (\$4,740,000); Lock and Dam 8-9 guidewall crib rehabilitation (\$2,920,000); and Upper Saint Anthony Falls tainter gate operating machinery rehabilitation.

BUDGETED AMOUNT FOR FY 2018: M: \$59,231,000 O: \$25,304,000 T: \$84,535,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$82,538,000 – Funding will be used for routine operations and maintenance activities to meet requirements for navigation. Non-routine maintenance items include Lock and Dam 4 Guidewall Cribs and Tow Haulage Rehabilitation (\$5,400,000), a Lock and Dam 5A embankment major rehab study (\$178,000), plans and specifications for embankment rehabilitation (\$250,000), and guidewall crib rehab (\$1,840,000). Also, migrate Civil Works real estate land tract data into GIS environment (\$46,000), installation of Lock and Dam 2 Miter Gates (\$1,204,000), miter gate replacement for Lock and Dam 8 (\$5,400,000), and embankment strengthening at structures at L&D 4 (\$1,600,000). Additional funds will also be used for phase 2 dredging (\$5,500,000), prepare Dredged Material Management Plan (\$400,000), Lock and Dam 5A miter gate replacement (\$5,400,000), and Lock 5 sheet pile installation (\$3,750,000).

FRM: N/A

Division: Mississippi Valley

District: St. Paul Mississippi River between Missouri River and Minneapolis (MVP Portion), MN

RC: \$819,000 – Funding will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$1,178,000 – Funding will be used for routine operation and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: This channel is a primary route for shipping commodities through the Midwest to and from the Gulf of Mexico.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$133,000. There was an additional \$68,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Orwell Lake, MN

AUTHORIZATION: Rivers and Harbors Act of 1950; Flood Control Acts of 1950 and 1944; Fish and Wildlife Coordination Act of 1958

LOCATION AND DESCRIPTION: The Orwell Dam and Lake is located on the Otter Tail River near Fergus Falls, Minnesota. The structure consists of an earth dam and concrete control works with a tainter gate. Most of the land, except for a part at the dam site, has been made available to the Minnesota Department of Natural Resources for wildlife conservation purposes.

FISCAL YEAR 2016 ALLOCATION: \$463,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$475,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$12,000 O: \$580,000 T: \$592,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$480,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: \$55,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$57,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship. Non-routine work item includes preparation of a historic properties plan of the 8 potential cultural resources sites at the Orwell Dam Reservoir.

WS: N/A

OTHER INFORMATION: The land base around Orwell Lake is leased to the State of Minnesota and operated as Orwell Wildlife Management area. Operation of Orwell Lake provides flood control benefits downstream on the Otter Tail River and continuing on the Red River of the North after it intersects the Otter Tail in Breckenridge, Minnesota. The damages prevented since construction are estimated at more than \$705 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Red Lake Reservoir, MN

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located 4.5 miles east of the western boundary of the Red Lake Indian Reservation in northwest Minnesota. Red Lake Dam is located at the outlet of lower Red Lake in the northeastern part of Clearwater County, Minnesota. The dam structure controls lake levels on Red Lake and discharges in the Red Lake River which eventually connects with the Red River of the North at East Grand Forks, Minnesota. The small concrete dam was built to restore the marshes for wildlife in the reservation between that dam and a point 3 miles below the outlet of Red Lake, to include alterations of the 1931 existing control stop-log structure built by the Indian Service (Bureau of Indian Affairs) at the outlet of Lower Red Lake. Operation of Red Lake Dam was assumed by the Corps on 1 April 1951.

FISCAL YEAR 2016 ALLOCATION: \$182,200

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$165,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$45,000 O: \$136,000 T: \$181,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$155,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: N/A

H: N/A

EN: \$26,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: Damages prevented since construction are approximately \$20 million. The dam and related structures are located entirely within the Red Lake Indian Reservation and a significant part of the water management executed by this structure is directly related to Tribal coordination and St. Paul District Tribal Trust responsibilities. A feature was added to Red Lake Dam in 2010 to facilitate fish migration back into the lake from the Red Lake River and is operated in coordination with Corps water control by the Red Lake Band.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: St. Paul

Red Lake Reservoir, MN

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Reservoirs at Headwaters of Mississippi River, MN

AUTHORIZATION: Rivers and Harbors Acts of 1880, 1882 and 1958; Flood Control Acts of 1944 and 1958; Water Supply Act of 1958, Fish and Wildlife Coordination Act of 1958; Federal Water Pollution Control Act Amendments of 1972

LOCATION AND DESCRIPTION: The Reservoirs at the Headwaters of the Mississippi River project are located in north central Minnesota in Itasca, Beltrami, Hubbard, Aitkin, Cass, and Crow Wing counties. The reservoirs are Winnibigoshish, Leech Lake, Pokegama, Sandy Lake, Pine River, and Gull Lake. The six dams were constructed or re-constructed between 1900 and 1913 for the purpose of aiding navigation by stabilizing water flow in the Mississippi River between St. Paul, Minnesota, and Prairie du Chien, Wisconsin. The project includes six Corps managed campgrounds and several day use areas serving approximately 1.7 million visitors annually.

FISCAL YEAR 2016 ALLOCATION: \$4,198,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities. Non-routine maintenance item included filling upstream voids at Pokegama Dam.

FISCAL YEAR 2017 ALLOCATION: \$3,798,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities and boundary surveying and rectification (\$150,000).

BUDGETED AMOUNT FOR FY 2018: M: \$789,000 O: \$4,135,000 T: \$ 4,924,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,636,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management. Non-routine work includes design for Sandy Dam rehabilitation.

RC: \$1,594,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$694,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship. Non-routine work item includes a level 2 multi-species inventory monitoring program in accordance with Master Plan revision of FY 2015.

WS: N/A

OTHER INFORMATION: Although they were authorized primarily for navigation, the reservoirs operate to reduce flood stages in the vicinity of Aitkin and to facilitate use of the area for recreational purposes and fish and wildlife conservation. The regulated outflow from the reservoirs contributes to improved water supply, pollution abatement and industrial development. The project has prevented over \$57 billion in damages through operation of water control structures since construction. Operations of the Headwaters Lakes support a significant number of Tribal Trust responsibilities in the area with many of the lakes located on Reservations; and close coordination with tribes, communities and their cultures is part of daily operations.

Division: Mississippi Valley

District: St. Paul

Reservoirs at Headwaters of
Mississippi River, MN

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$337,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

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APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Claiborne County Port, MS

AUTHORIZATION: Rivers and Harbors Act of 1960, Section 107 (Public Law 86-645)

LOCATION AND DESCRIPTION: Claiborne County Port is a slack-water, shallow draft harbor, located along the Mississippi River. This project's purpose is to provide a transportation conduit for water-oriented industry in Claiborne County, MS. This is a low use shallow draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$100,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for surveys and to perform minimal maintenance dredging to maintain the channel.

FISCAL YEAR 2017 ALLOCATION: \$100,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for surveys. Additional funds are being used to perform annual maintenance dredging (\$99,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,000 T: \$1,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,000 – Funds will be used for annual surveys of the harbor.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This port was constructed in 1982 to service many small communities and farmers in Mississippi.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Fork, Tombigbee River, MS

AUTHORIZATION: Flood Control Acts of 1936, 1938 and 1941

LOCATION AND DESCRIPTION: This 53 mile long flood risk management project is located on the Tombigbee River and its tributaries between the junction of Browns and Mackey's Creeks in Itawamba County, Mississippi to the Monroe County line. This project provides for maintenance of the channel to ensure flood risk management benefits for Itawamba County; conveys water to meet requirements of the US Fish and Wildlife Service for protection of endangered mussels; and ensures the ability to provide water supply for the City of Tupelo.

FISCAL YEAR 2016 ALLOCATION: \$282,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine maintenance in support of flood risk management to include clearing and snagging.

FISCAL YEAR 2017 ALLOCATION: \$285,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine maintenance in support of flood risk management to include clearing and snagging.

BUDGETED AMOUNT FOR FY 2018: M: \$285,000 O: \$0 T: \$285,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$285,000 – Funds will be used for routine maintenance in support of food risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project includes overhead clearing and general debris removal from the East Fork of the Tombigbee River and Mackey's Creek in Itawamba County, Mississippi.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulfport Harbor, MS

AUTHORIZATION: River and Harbor Act of 1930, modified by the River and Harbor Acts of 1948 and 1958; Supplemental Appropriations Act of 1985 and Section 202 of Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: The high use, deep draft navigation project is located in Gulfport, Mississippi, approximately equidistant between New Orleans, Louisiana and Mobile, Alabama. The project consists of a 38 feet by 400 feet Bar Channel from the Gulf of Mexico across Ship Island Bar into the Mississippi Sound, a 36 feet by 300 feet Sound Channel leading to the Anchorage Basin proper, and an 8 feet by 100 feet Branch Channel leading to an adjacent small craft harbor.

FISCAL YEAR 2016 ALLOCATION: \$4,447,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$8,222,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$6,350,000 O: \$0 T: \$6,350,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,350,000 – Funds will be used for routine maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project supports major import/exports of poultry products, fruit, wood products, metals and minerals for manufacturing processes. This project was widened to fully authorized dimensions in FY 2010. In November 2015 Gulfport was designated as a Strategic Seaport. The project has a five-year average of over two million tons in commodities. In FY2015, the Mississippi Port Authority contributed \$8 million for the maintenance of the project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$120,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mouth of Yazoo River, MS

AUTHORIZATION: Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: The mouth of the Yazoo River starts at the Mississippi River and continues for 9.3 miles to the junction of Old Mississippi River and Yazoo River at Vicksburg, MS. The channel is 150 feet wide. The minimum operating depth of 9 feet below the lowest water of record is maintained in the channel. The project provides access to the Yazoo River, the Upper Vicksburg Harbor, and the Vicksburg Harbor.

FISCAL YEAR 2016 ALLOCATION: \$135,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform surveys to determine the need for and extent of annual dredging. Funds were also used for annual maintenance dredging.

FISCAL YEAR 2017 ALLOCATION: T: \$310,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform surveys. Additional funds are being used to perform annual maintenance dredging (\$276,000).

BUDGETED AMOUNT FOR FY 2018: M: \$29,000 O: \$1,000 T: \$30,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$30,000 – Funds will be used for channel condition surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This access channel services many small communities and farmers in Mississippi.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Okatibbee Lake, MS

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Okatibbee Lake is located seven miles northwest of Meridian, Mississippi, at mile 37.7 on the Okatibbee Creek. The project includes a dam, a flood risk management reservoir and several recreation areas.

FISCAL YEAR 2016 ALLOCATION: \$1,606,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine and non-routine operations and maintenance to support flood control, water supply recreation and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$2,150,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine and non-routine operations and maintenance of the multi-purpose project. Non-routine maintenance activities include erosion control activities and rehab of Black Gum Loop Road.

BUDGETED AMOUNT FOR FY 2018: M: \$686,000 O: \$1,409,000 T: \$2,095,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$956,000 – Funds will be used for routine operations and maintenance in support of flood risk management.

H: N/A

RC: \$833,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$37,000 for sustainability work on this project to purchase two electric rechargeable vehicles and install HVAC system.

EN: \$298,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship. Non-routine work includes Master Plan Compliance (\$100,000) and development of a Cultural/Historical Resource Property Plan (\$40,000).

WS: \$8,000 – Funds will be used for routine operations and maintenance in support of water supply.

OTHER INFORMATION: Okatibbee Lake Project provides flood damage reduction for areas in Lauderdale/Clark Counties to include Meridian and Enterprise, Mississippi. The project has over 900,000 visits per year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pascagoula Harbor, MS

AUTHORIZATION: River and Harbor Acts of 1913, 1915, 1950, 1954, 1958, 1960, and 1962 and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The Pascagoula Harbor high use, deep draft navigation project is located in Jackson County, Mississippi. The project provides for a 44 foot by 600 foot channel from the Gulf of Mexico across Ship Island Bar and into Mississippi Sound, a 42 foot by 350 foot channel in the Sound transitioning to two main channels, a 42 foot by 350 foot channel leading to Bayou Casotte and a 38 foot by 350 foot channel leading to the Pascagoula River.

FISCAL YEAR 2016 ALLOCATION: \$6,984,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$2,360,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$4,866,000 O: \$250,000 T: \$5,116,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,116,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project supports a major Gulf refinery and a liquefied natural gas plant and numerous major shipbuilding industries. The project averages more than 35 million tons of cargo annually.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$112,000. There was an additional \$155,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pearl River, MS and LA

AUTHORIZATION: Rivers and Harbors Act of 1935, as modified by Rivers and Harbors Act of 1966

LOCATION AND DESCRIPTION: The project is a navigation channel on the Pearl River that originally extended 58 miles from the mouth of the Pearl River to the mouth of Bogalusa Creek at Bogalusa, LA. The project consisted of three locks and three weirs that provided a channel with minimum depth of 7 feet and a minimum bottom width of 100 feet. The project was placed in a caretaker status in 1995 and has been maintained only for maintenance and safety needs.

FISCAL YEAR 2016 ALLOCATION: \$149,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to maintain the project in a caretaker status.

FISCAL YEAR 2017 ALLOCATION: \$150,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to maintain project in a caretaker status.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$150,000 T: \$150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$150,000 – Funds will be used for continued operations and maintenance in caretaker status.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since the project is in “Caretaker Status”, the structure is left unattended. Repairs of the damages caused by Hurricane Isaac was completed in December 2013.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

Division: Vicksburg

Pearl River, MS and LA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rosedale Harbor, MS

AUTHORIZATION: Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: Rosedale Harbor is a slack-water, shallow draft harbor, located along the Mississippi River in Bolivar County, MS. This project's purpose is to meet a transportation need for water-oriented industry in Bolivar, Coahoma, and Sunflower Counties in Mississippi. This is a moderate use shallow draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$972,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform surveys to determine the need for and extent of annual maintenance dredging. Funds were also used to fully fund maintenance dredging of the harbor.

FISCAL YEAR 2017 ALLOCATION: \$575,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform surveys. Additional funds are being used to perform annual maintenance dredging of the harbor (\$566,000).

BUDGETED AMOUNT FOR FY 2018: M: \$4,000 O: \$4,000 T: \$8,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,000 – Funds will be used to perform surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project was constructed in 1978 and has been maintained annually. In 2013, the port shipped 1,340,001 tons through Rosedale Harbor.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Water/Environmental Certification, MS

AUTHORIZATION: Not applicable. Each project covered under this program has its own authorization.

LOCATION AND DESCRIPTION: The water quality certification is for deep draft and shallow draft projects located on the Gulf Coast of Mississippi.

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for miscellaneous consultation and environmental data calls on small projects throughout Mississippi.

FISCAL YEAR 2017 ALLOCATION: \$20,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for miscellaneous consultation and environmental data calls on small projects throughout Mississippi.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$40,000 T: \$40,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$40,000 - The Water/Environmental Certification activities encompass coordination with Federal and State natural resources agencies to meet environmental requirements associated with dredging for unbudgeted projects along the Gulf Coast of Mississippi.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The primary purpose of these activities is coordination between the Corps and other Federal and state agencies to meet environmental requirements associated with dredging.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yazoo River, MS

AUTHORIZATION: Water Resources Development Act 1986, Public Law 99-662.

LOCATION AND DESCRIPTION: The Yazoo River provides navigation from the mouth of the Yazoo River, Vicksburg, MS to Greenwood, MS. The project depth is 9 feet over a distance of 158 miles.

FISCAL YEAR 2016 ALLOCATION: \$152,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for surveys and clearing and snagging to prevent harbor closure.

FISCAL YEAR 2017 ALLOCATION: \$102,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform minimum channel surveys and minimal maintenance clearing and snagging of the channel (\$81,000).

BUDGETED AMOUNT FOR FY 2018: M: \$18,000 O: \$1,000 T: \$19,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$19,000 – Funds will be used for surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0

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APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caruthersville Harbor, MO

AUTHORIZATION: Rivers and Harbors Act 1960, Section 107

LOCATION AND DESCRIPTION: The harbor is located on the Mississippi River (mile 853.0) at Caruthersville in Pemiscot County, Missouri. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 225 feet wide by 3,500 feet long with a 300-foot radius turning basin at the upper end. The local interest is the Pemiscot County Port Authority.

FISCAL YEAR 2016 ALLOCATION: \$515,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin. Funds were also used for dredging the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$815,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor and turning basin and to perform maintenance dredging of the harbor to authorized channel dimensions.

BUDGETED AMOUNT FOR FY 2018: M: \$800,000 O: \$15,000 T: \$815,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$815,000 – Funds will be used for navigation channel surveys and to perform maintenance dredging of the harbor to authorized channel dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The five-year average commercial tonnage is 982,000 tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clarence Cannon Dam and Mark Twain Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 and 1962

LOCATION AND DESCRIPTION: The project is located on the Salt River at mile 63 above its confluence with the Mississippi River. This multi-purpose project provides flood risk management, hydropower, water supply, navigation, pollution abatement, fish and wildlife conservation, and recreation.

FISCAL YEAR 2016 ALLOCATION: \$8,725,000

DESCRIPTIONS OF WORK FOR FY 2016: Activities in FY 2016 included operating and maintaining the project; and award of fully funded contracts to complete repairs to the re-regulation dam stoplogs; contract award for a new replacement station service Motor Control Center and 480 volt distribution system of the Power Plant electrical system. Indian Creek breakwater removal and knife valve replacements as well as replace the Ray Behrens Recreation Area fee booth building.

FISCAL YEAR 2017 ALLOCATION: \$7,001,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for operating and maintaining the project; installing replacement station service Motor Control Center and 480 volt distribution system of the power plant electrical system; generating excitation system technical specifications and scope of work for hydroelectric design center; and upgrading the visitor center exhibits. Additional funds are provided to perform maintenance to the water supply function (\$7,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,573,000 O: \$4,421,000 T: \$6,994,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,000 – Funds will be used for routine operation and maintenance for navigation.

FRM: \$994,000 – Funds will be used for routine operation and maintenance for flood risk management.

RC: \$2,616,000 – Funds will be used for routine operation and maintenance for recreation.

H: \$1,591,000 – Funds will be used for routine operation and maintenance for hydropower.

EN: \$860,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$40,000 – Funds will be used for routine operation and maintenance for water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$891,000 for routine operation and maintenance of project features jointly used by multiple business lines: FRM - 60%, EN - 3%, WS - 7% and REC - 30%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clearwater Lake, MO

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Clearwater Lake is located near Piedmont, Missouri, in Reynolds and Wayne Counties. There are 898 square miles of drainage area above the dam. The primary purpose is flood risk management, but the project also provides environmental and recreation outputs.

FISCAL YEAR 2016 ALLOCATION: \$3,319,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and to repair forbay stoplogs and paint structures and equipment.

FISCAL YEAR 2017 ALLOCATION: \$3,328,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled operation and maintenance activities and to conduct a sedimentation study.

BUDGETED AMOUNT FOR FY 2018: M: \$1,875,000 O: \$2,473,000 T: \$4,348,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,039,000 – Funds will provide for routine O&M of the dam, reservoir, service facilities and permanent operating equipment. Non-routine activities include rehabilitating the Bulkhead Crane (\$855,000).

RC: \$1,157,000 – Funds will provide for routine O&M of recreation.

H: N/A

EN: \$152,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: N/A

OTHER INFORMATION: Clearwater Lake is estimated to have prevented \$329 million in flood damages since its construction. Over 477,000 recreation visits, with an estimated local economic impact of \$20 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Harry S Truman Dam and Reservoir, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941(P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam with a crest 114 feet above the original streambed, a tainter gate controlled spillway; and powerhouse with six inclined pump-generating units, with a combined nameplate capacity of 160,000 kilowatts, and reservoir storage capacity and is located one mile West of Warsaw, Missouri. This project provides flood protection, hydropower, water supply, fish and wildlife, and recreation to central Missouri.

FISCAL YEAR 2016 ALLOCATION: \$9,601,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of dam, powerhouse, and other facilities; compliance with North American Reliability Corporation (NERC) reliability standard activities. Joint non-routine activities consisted of \$68,000 to repair a Log Boom that prevented access to restricted areas of dam. Other non-routine work consisted of boundary inspection, forestry management, audit of water quality, and real estate encroachment activities.

FISCAL YEAR 2017 ALLOCATION: \$11,087,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of dam, powerhouse, and other facilities; compliance with North American Reliability Corporation (NERC) reliability standard activities; and for non-routine stub shaft control replacement \$282,000. A total of \$800,000 for sustainability work on this project will include water efficiency upgrades and water well system rehabilitation.

BUDGETED AMOUNT FOR FY 2018: M: \$11,442,000 O: \$8,175,000 T: \$19,617,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$0 – N/A

FRM: \$0 – N/A

RC: \$3,078,000 – Funding provides for operation and maintenance for recreation. A total of \$368,000 will be used for non-routine activities including sustainability work (\$288,000) for lighting and insulation and (\$80,000) for Windsor Crossing campground upgrade.

H: \$11,793,000 – Funding provides for operation and maintenance for hydropower. A total of \$6,449,000 will be used for non-routine activities including (\$5,060,000) for the replacement excitation equipment U1-U6 (Volt Regulator), (\$185,000) for a replacement of relay protection system, (\$135,000) to upgrade to generator relays (\$345,000), for a digital governor controller, (\$435,000) for Supervisory Control and Data Acquisition Systems and Programmable Logic Controllers, power plant overhead operator/door replacement (\$140,000) and air handler units #2, #3, #4 replacement (\$200,000).

EN: \$925,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities include intensive land maintenance and enhancement for wildlife and cultural resources investigations. A total of \$85,000 will be used for boundary inspection and maintenance work and \$50,000 will be used for pest and invasive species management.

WS: \$11,000 – Funding provides for operations for water supply.

Division: Northwestern

District: Kansas City Harry S. Truman Dam & Reservoir, MO

OTHER INFORMATION: The budgeted amount for the project includes \$3,810,000 for project features jointly used by multiple business lines: HYD – 21%, FRM – 50%, EN – 16%, and REC – 14%. FY18 funding provides for operation and maintenance of joint activities and work for the Trunion Girder Cap, cultural resources, period inspection efforts, waterstop joint repair, and sustainability water conservation work. Project cumulative flood damages prevented since the project was put into service in 1979 has totaled \$2.7 billion with an average annual economic benefit of \$79.3 million. The project encompasses 164,289 land acres, and 55,600 water acres with 958 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 2.4 million visits per year, generates approximately \$101.3 million in revenue, and sustains 1,015 jobs. The power plant provides approximately 244 million Kilowatt hours (KWH) of energy annually to meet peak power demand periods with six slant axis generator-turbine units. Average annual revenue and energy benefits of the power plant is \$20.7 million. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Little Blue River Lakes, MO

AUTHORIZATION: Flood Control Acts of 1968 (P.L. 90-483)

LOCATION AND DESCRIPTION: Little Blue River Lakes consists of two multipurpose lakes in Kansas City, Missouri, County of Jackson. Blue Springs Lake is located on the East Fork of the Little Blue River about ½ miles south of U.S. Highway 40; and the dam is an earth-fill embankment 2,500 feet long with a crest of 80 feet, and total reservoir storage capacity of 26,600 acre-feet. Longview Lake is located on the main stem at approximately 109th Street; and the dam is an earth-fill embankment 1,900 feet long with a crest of 117 feet, and total reservoir storage capacity of 46,900 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$976,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities.

FISCAL YEAR 2017 ALLOCATION: \$879,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$85,000 O: \$1,029,000 T: \$1,114,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$993,000 – Funding provides for operation and maintenance for flood risk management. A total of \$123,000 will be used for bridge and periodic inspection work.

RC: \$25,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$96,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: N/A

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1984 has totaled \$87.7 million with an average annual economic benefit of \$28.7 million. The project encompasses 7,452 land acres, and 1,650 water acres with 36 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 1.1 million visits per year, generates approximately \$33.6 million in revenue, and sustains 370 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Long Branch Lake, MO

AUTHORIZATION: Flood Control Acts of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: This multi-purpose project is located on the East Fork Little Chariton River in North-central Missouri, about two miles West of Macon, County of Macon. An earth-fill dam 3,800 feet long with a crest 76 feet above the original streambed, and total reservoir storage capacity of 64,500 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$873,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of the dam and other facilities and non-routine sustainability work to replace ground floor windows in the administrative building (\$45,000).

FISCAL YEAR 2017 ALLOCATION: \$933,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities. Additional funds are provided for emergency repair/replacement of emergency drawdown gate and operating system (\$200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$689,000 O: \$754,000 T: \$1,443,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,229,000 – Funding provides for operation and maintenance for flood risk management. A total of \$96,000 will be used for a relief well stability study and periodic inspection work. Non-routine activities include tower structural repairs (\$615,000).

RC: \$110,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$96,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$8,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1979 has totaled \$73.0 million with an average annual economic benefit of \$6.4 million. The project encompasses 7,744 land acres, and 2,430 water acres with 24 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 343,000 visits per year, generates approximately \$12.0 million in revenue, and sustains 128 jobs. The project collected approximately \$95,000 from water supply revenues in FY13 from the City of Macon, Missouri, and utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: NWD

District: Kansas City

Long Branch Lake, MO

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between the Ohio & Missouri Rivers (Reg Works), MO & IL

AUTHORIZATION: Rivers and Harbors Acts of 1910, 1927, and 1930 as amended by the Rivers and Harbors Acts of 1945 and 1958.

LOCATION AND DESCRIPTION: Project extends from the mouth of the Ohio River to the Missouri River at the northern boundary of St. Louis, Missouri. It is a high use waterway/navigation project that includes 195 miles of river, a nine-foot navigation channel with a lateral canal and Lock 27 at Chain of Rocks, fixed crest rock dam, six recreational access areas, and stewardship of 10,000 acres of public lands.

FISCAL YEAR 2016 ALLOCATION: \$23,442,000

DESCRIPTIONS OF WORK FOR FY 2016: Activities in FY 2016 included operation and maintenance of the project at baseline levels of service. Backlog maintenance and repairs on river training structures was deferred to respond to and make emergency repairs following winter flooding. Funds were also used to make repairs at Locks 27 as well as additional dredging, above baseline, to meet minimal project authorities due to winter flooding. Approximately \$1.2M of emergency dredge funds had to be carried over due to high river stages in August and September. These funds were expended in early FY2017 as river stages receded.

FISCAL YEAR 2017 ALLOCATION: \$24,658,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to operate and maintain the project at baseline levels of service, including Lock 27, Chain of Rocks Levee, and 195 miles of open river to include St. Louis Harbor, dredging, dike and revetment repairs, construct avoid and minimize measures, operate, maintain and inventory project lands for environmental stewardship and restoration, and for recreational access, public education, and environmental compliance. Funds are also being used toward minimum critical maintenance and repairs at Lock 27. Additional funds are provided to clear brush and replace boundary posts and signs for Lower River (\$50,000).

BUDGETED AMOUNT FOR FY 2018: M: \$23,453,000 O: \$6,495,000 T: \$29,948,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$27,956,000 – Funds will be used for routine operation and maintenance for navigation. Non-routine work includes deficiency corrections on main lock liftgate counterweight baskets (\$400,000), liftgate hoisting chain rehab on lock 27 (\$1,200,000), and repair of navigation levee at Chain of Rocks canal (\$2,000,000).

FRM: \$993,000 – Funds will be used for routine operation and maintenance for flood risk management..

REC: \$386,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$613,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Over 107 million tons of commodities passed through the project in FY 2016. The Chain of Rocks levee protects over 250,000 people and \$4.5 billion in economic value. FY 2012 project public visitation was over 700k visitors generating in excess of \$11M value to the region.

Division: Mississippi Valley

District: St. Louis

Mississippi River between the Ohio & Missouri Rivers (Reg Works), MO & IL

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$114,000. There was an additional \$540,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Madrid County Harbor, MO

AUTHORIZATION: Water Resources Development Act of 1992, Section 102(n)

LOCATION AND DESCRIPTION: This locally constructed harbor is located on the Mississippi River at mile 885.0, south of New Madrid in New Madrid County, Missouri. The approved channel dimensions for this harbor are 9 feet deep by 225 feet wide by 1,500 feet long. It is used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The local interest is the New Madrid County Port Authority.

FISCAL YEAR 2016 ALLOCATION: \$525,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor. Funds were also used for dredging the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$525,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor. Additional funds are provided to perform maintenance dredging of the harbor to authorized channel dimensions (\$515,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 – Funds will be used for collection of limited navigation channel surveys. This information will be provided to local sponsors for use in determining the channel condition and navigation hazards.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 1,295,000 tons which is a combination of the tonnage for this harbor and the New Madrid Harbor, Mile 889, MO.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Madrid Harbor, MO (Mile 889)

AUTHORIZATION: Water Resources Development Act of 1996, Section 509 (resumption of Federal maintenance). The Assistant Secretary of the Army for Civil Works approved the report recommending resumption of Federal maintenance in December 2007.

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River at mile 889 adjacent to New Madrid in New Madrid County, Missouri. This is a fast-water harbor with a 9-foot depth by 150 feet wide by 9,400 feet long with a 250-foot radius turning basin at the lower end. The project provides maintenance dredging to provide barge traffic year round access to harbor facilities. The local interest is the City of New Madrid, MO.

FISCAL YEAR 2016 ALLOCATION: \$515,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin. Funds were also used for limited dredging of the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$515,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor and turning basin. Additional funds are provided for limited dredging of the harbor channel to authorized dimensions (\$500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$15,000 T: \$15,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$15,000 – Funds will be used to collect limited navigation channel surveys. This information will be provided to local sponsors for use in determining the channel condition and navigation hazards.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 1,295,000 tons which is a combination of the tonnage for this harbor and New Madrid County Harbor, MO.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pomme de Terre Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1944 (P.L. 78-534), 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This is a multi-purpose project located four miles south of Hermitage and twenty miles north of Bolivar, Missouri, Counties of Hickory and Polk. The project includes an earth and rock-fill dam 4,630 feet long with a dike section on the left abutment, crest of 156 feet, and a reservoir storage capacity of 644,200 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$2,712,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities; and non-routine work of \$50,000 continuing work on the Project Master Plan. The sustainability work included \$29,000 to replace light fixtures with energy saving units.

FISCAL YEAR 2017 ALLOCATION: \$3,327,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities and non-routine work for design and installation of interim risk reduction measures (\$60,000) and the ongoing water reallocation study (\$300,000). The sustainability work on this project included \$300,000 for the replacement of the sewage treatment plant.

BUDGETED AMOUNT FOR FY 2018: M: \$1,185,000 O: \$2,221,000 T: \$3,406,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,698,000 – Funding provides for operation and maintenance for flood risk management. Additional funds are provided for emergency gate lifting beam repair (\$250,000).

RC: \$1,055,000 – Funding provides for operation and maintenance for recreation.

H: N/A.

EN: \$353,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations. Non-routine activities include a concentrated effort to control/eradicate noxious species such as Serecia Lespedeza, Johnson Grass, Honey Locust, Autumn Olive and to remove encroaching woody vegetation, and un-wanted species on approximately 200 acres (\$10,000). Also wildlife and habitat management (\$157,000).

WS: \$300,000 – Funding provides for operations for water supply. A total of \$300,000 will be used for a reallocation study.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1961 has totaled \$113.7 million with an average annual economic benefit of \$9.8 million. The project encompasses 18,335 land acres, and 7,790 water acres with 113 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 1.5 million visits per year, generates approximately \$59.1 million in revenue, and sustains 612 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

Division: Northwestern

District: Kansas City

Pomme de Terre Lake, MO

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Smithville Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: This is a multi-purpose project located about one mile Northeast of Smithville, Missouri, and about five miles North of Kansas City, Missouri, Counties of Clay and Clinton. The project includes an earth-fill dam, 4,200 feet long with a crest 96 feet above the original streambed with dike 2,400 feet long. The dam has gated outlet works and an uncontrolled service spillway, and a total reservoir storage capacity of 241,500 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$1,568,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other facilities; and non-routine sustainability work to replace the ground floor windows in the administration building (\$70,000), and to install a solar and/or wind system for the project's administration and maintenance buildings (\$150,000).

FISCAL YEAR 2017 ALLOCATION: \$1,551,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$293,000 O: \$1,506,000 T: \$1,799,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,292,000 – Funding provides for operation and maintenance for flood risk management. Non-routine activities include replacing the crane wire ropes (\$31,000), maintenance of locks, dams, reservoirs, service facilities, permanent operating equipment etc (\$10,000), and replace force main sewerline (\$51,000).

RC: \$125,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$370,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations. A total of \$150,000 will be used for cultural resource site archeological excavation work. Non-routine activities include removing 4 invasive species (Autumn Olive, Bush Honeysuckle, Johnson Grass, Sericea Lespedeza) that has adversely impacted 500 acres of environmentally sensitive land (\$29,000).

WS: \$12,000 – Funding provides for operations for water supply.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1977 has totaled \$1.2 billion with an average annual economic benefit of \$15.7 million. The project encompasses 19,709 land acres, and 7,190 water acres with 175 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 1.4 million visits per year, generates approximately \$52.5 million in revenue, and sustains 527 jobs. The project utilizes volunteers

Division: Northwestern

District: Kansas City

Smithville Lake, MO

and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Southeast Missouri Port (SEMO), Mississippi River, MO

AUTHORIZATION: Section 107 of Rivers and Harbors Act of 1960 (Public Law 86-645)

LOCATION AND DESCRIPTION: Project is located on the right bank of the Mississippi River between river miles 47.5 and 48.8 above the Ohio River in Scott and Cape Girardeau Counties in Southeast Missouri. The project consists of a 1,800-foot slackwater harbor with a nine-foot navigation channel, docking facilities, barge-rail-truck transfers, bagging, warehousing, outdoor storage, and nearby fleeting.

FISCAL YEAR 2016 ALLOCATION: \$408,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds included coordination with the Port Authority to dredge the approach channel and collect surveys. Funds were also used to dredge the authorized channel within the port.

FISCAL YEAR 2017 ALLOCATION: \$401,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for coordination with Port Authority on current conditions and minimal surveys and dredging to include environmental certifications and supervision and administration.

BUDGETED AMOUNT FOR FY 2018: M: \$8,000 O: \$1,000 T: \$9,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$9,000 – Funds will be used for coordination with Port Authority on current conditions and impacts to port operation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Average annual dredging requirement for the last three years has been \$348,000. Port development and expansion is ongoing (state and private funds). The value of products moving through the Port exceeds \$342 million annually. Agricultural benefits include over \$4 million in grain transportation savings and over \$2 million in fertilizer transportation savings. Projects are attracted to SEMO Port because of its multiple modes of transportation which include waterborne, two major rail lines (Burlington Northern Santa Fe Railway and the Union Pacific Railroad) and the nearby Texas Eastern Products Pipeline which connects Texas, the Midwest, and the Northeast.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$106,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stockton Lake, MO

AUTHORIZATION: Flood Control Act of 1954 (Public Law 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is a rock-shell dam with impervious core 5,100 feet long with a crest 156 feet above the original streambed; a gate-controlled over-fall spillway; a powerhouse with a single generating unit nameplate capacity of 45,200 kilowatts; and reservoir storage capacity of 1,651,000 acre-feet. The Project is located approximately one mile east of Stockton, Missouri, Counties of Cedar, Dade, and Polk.

FISCAL YEAR 2016 ALLOCATION: \$4,940,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance; and non-routine of \$300,000 continuing effort for the water supply reallocation study.

FISCAL YEAR 2017 ALLOCATION: \$5,857,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for routine operation and maintenance; and non-routine work for grass conversion for pollinator habitat (\$35,000) and a continuing effort for the water supply reallocation study (\$300,000). Sustainability work included water efficiency upgrades and energy saving measures (\$200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,226,000 O: \$3,528,000 T: \$5,754,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A.

RC: \$2,021,000 – Funding provides for operation and maintenance for recreation. A total of \$275,000 will be used for a sustainability work (\$170,000) for replacement of water systems at two camp sites and (\$105,000) for electrical rewiring and street light work.

H: \$2,027,000 - Funding provides for operation and maintenance for hydropower. A total of \$200,000 will be used for Hydropower Supervisory, Control and Data Acquisition (SCADA) system work.

EN: \$212,000 – Funding provides for operation and maintenance for environmental stewardship to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests and other activities that include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: \$12,000 – Funding provides for operations for water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$1,482,000 for project features jointly used by multiple business lines: HYD - 0.04%, FRM – 69.9%, and REC – 30.03%. FY18 funding provides for operation and maintenance for joint activities and spillway and Apron Repairs. Project cumulative flood damages prevented since the project was put into service in 1970 has totaled \$317.2 million with an average annual economic benefit of \$16 million. The project encompasses 58,788 land acres, and 24,632 water acres with 298 miles of shoreline. It provides recreational programs, activities, and facilities that support approximately 1.3 million visits per year, generates approximately \$48.4 million in revenue, and sustains 542 jobs. The power plant provides approximately 55 million Kilowatt hours (KWH) of energy annually to meet peak power demand periods with a single turbine unit. Average annual revenue and energy benefits of the power plant is \$8.3 million. The project utilizes volunteers and

Division: Northwestern

District: Kansas City

Stockton Lake, MO

partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$102,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Table Rock Lake, MO and AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) as amended by the Flood Control Acts of 1941 (P.L. 77-228) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Table Rock Lake is located in Branson, Missouri, and is one of five multiple-purpose projects within the White River Basin. The authorized purposes are hydropower, flood risk management, and recreation. The project contains four 50-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$10,129,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, to update the Table Rock Lake Shoreline Management Plan, replace generator cables/power cable tunnel cooling, and video inspect and clean toe drains at the dam.

FISCAL YEAR 2017 ALLOCATION: \$8,888,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for scheduled O&M activities and to update the Table Rock Lake Shoreline Management Plan (\$200,000) and perform boundary inspection and marking (\$250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,073,000 O: \$7,281,000 T: \$10,354,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,303,000 – Funds will provide for routine O&M of dam, reservoir, service facilities and permanent operating equipment. In addition, a non-routine work package will be funded to replace sluice gate wiring, sump pump wiring, and gallery lighting wiring (\$625,000).

RC: \$2,660,000 – Funds will provide for routine O&M of recreation.

H: \$3,323,000 – Funds will provide routine O&M for hydropower generation, power plant equipment, and joint operations of power plant and dam components. In addition, a non-routine work package will be funded to update arc flash analysis (\$60,000) and repair the HVAC for the Supervisory Control and Data Acquisition (SCADA) system equipment (\$125,000).

EN: \$978,000 – Funds will provide for routine O&M of environmental stewardship activities.

WS: \$259,000 – Funds will provide for routine O&M of water supply activities. In addition, funds to be provided for Water Supply reallocation study (\$250,000).

OTHER INFORMATION: Table Rock Lake is estimated to have prevented \$285 million in cumulative flood damages since its construction. Over 3,772,000 recreation visits, with an estimated local economic impact of \$114 million occurred in FY 2012. Hydropower generation in FY 2016 was 584,000 megawatt-hours, enough for 57,000 homes. As a multiple purpose project with power, the project's budget includes joint activities, with a total allocation of \$831,000 shared between business lines as follows: HYD 72.92% and FRM 27.08%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$418,000. There was an additional \$33,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Little Rock

Table Rock Lake, MO & AR

MONTANA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Peck Dam & Lake, MT

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and the Endangered Species Act of 1973 (P.L. 93-205)

LOCATION AND DESCRIPTION: The project is located twenty miles southeast of Glasgow, Montana on Montana Highway 24. Construction began in 1933 and was completed in 1940. The dam is 21,026 feet long and has a maximum height of 250.5 feet. The lake behind the dam measures 134 miles long and a maximum depth of 220 feet. The water at Fort Peck provides benefits of the flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$7,818,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Non-routine work packages include pest and invasive species management activities, re-evaluation of maximum pool elevation and a project sustainability energy audit.

FISCAL YEAR 2017 ALLOCATION: \$ 5,535,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. In addition non-routine funds will be used for periodic archaeological inventories review and inspection and non-destructive testing of penstock fracture critical members.

BUDGETED AMOUNT FOR FY 2018: M: \$805,000 O: \$5,230,000 T: \$6,035,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,425,000 - Funding provides for routine operation and maintenance for recreation. There is \$31,000 included for sustainability work to replace Westend Campground waterline.

H: N/A

EN: \$870,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include maintenance of natural resources (\$20,000).

WS: \$149,000 – Funding provides for management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$3,591,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 43.78%, NAV - 23.73%, and FRM - 32.49%. Non-routine activities for jointly used features includes \$450,000 for modernization of shaft control building cranes. Cumulative flood damages prevented, from the beginning to FY 2015, \$13.1 billion. Plant installed generation capacity of 185 megawatts, produced \$23.2 million in power production in FY 2015. The project encompasses 388,259 land acres, 260,000 water acres with 1,520 miles of shoreline, and has a total reservoir storage capacity of 18,463,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 487,000 visits per year, generates approximately \$17.6 million in revenue, and sustains 145 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,351,000. There was an additional \$6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Libby Dam, MT

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Libby Dam and Lake Kootenai are 17 miles northeast of the city of Libby in Lincoln County and located on the Kootenai River in Montana. Libby Dam is a multi-purpose concrete gravity dam. It is authorized and operated for flood control, power generation, and regulation of stream flow for 16 downstream hydroelectric projects. The powerhouse came on line in 1975 and has five turbines with a total installed capacity of 605-megawatts. Libby Dam is a high-head dam and holds back 90 miles of water in Lake Kootenai. Forty-eight miles of the reservoir lie within U.S. borders, the other 42 miles are in Canada.

FISCAL YEAR 2016 ALLOCATION: \$699,000

DESCRIPTIONS OF WORK FOR FY 2016: FY2016 funds were used for the operation and maintenance of dam, other facilities, recreation sites, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$2,025,000

DESCRIPTIONS OF WORK FOR FY 2017: FY2017 funds are being used for the operation and maintenance of dam, other facilities, recreation sites, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$871,000 O: \$1,855,000 T: \$2,726,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$569,000 – Funding provides for routine operations and maintenance for recreation.

H: Routine O&M of the hydropower plant is direct-funded by the Bonneville Power Administration.

EN: \$273,000 – Funding provides for routine operations and maintenance for environmental stewardship. Non-routine activities include riparian habitat restoration (\$54,000).

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,884,000 for project features jointly used by multiple business lines: FRM - 100.0%. Non-routine joint activities include NEPA Analysis of the Columbia River Basin Operations (\$368,000); and Selective Withdrawal Gate Hinge Installation (\$65,000). A total of \$150,000 in joint sustainability work on this operating project includes installing energy efficient lighting and retrofitting existing ballasts and fixtures. Libby hydropower generators produced 2,523,000 megawatt-hours of electricity in FY 2013, enough for 233,000 homes. Libby Dam project is host to a Blue Ribbon trout fishery and an 18-hole championship disc golf course. It supports four recreation areas and two day use areas that include campgrounds, boat ramps, swim dock, picnicking, playgrounds, trails, interpretation, and a Class B visitor center with displays, restrooms, a theater, and tours. Visitation for FY 2014 was 191,378 with an estimated benefit to the local economy of \$3.7 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$193,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Northwestern

District: Seattle

Libby Dam, MT

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NEBRASKA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gavins Point Dam, Lewis & Clark Lake, NE and SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: Gavins Point Dam is located four miles west of Yankton, South Dakota on Highway 52. Gavins Point Dam construction began in 1952 and was completed in 1956. The dam measures 8,700 feet in length and has a maximum height of 74 feet. Lewis and Clark Lake is 25 miles long, creates 90 miles of shoreline, and has a maximum depth of 45 feet at the dam.

FISCAL YEAR 2016 ALLOCATION: \$8,904,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Significant non-routine work performed includes bank stabilization of significant cultural resource sites, installation of raw water intake isolation valves and rehabilitation of the spillway gate motors and gearboxes.

FISCAL YEAR 2017 ALLOCATION: \$9,636,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. Additional funds are provided for Master Plan compliance (\$330,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,314,000 O: \$8,997,000 T: \$11,311,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$832,000 – Funding provides for routine operation and maintenance for recreation.

H: \$5,257,000 – Funding provides for routine operation and maintenance for hydropower. Non-routine activities include \$684,000 to replace monolith joint waterstops to reduce leakage into the powerhouse, and \$265,000 to rehabilitate generator fire suppression systems.

EN: \$668,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: \$17,000 – Funding provides for management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$ 4,537,000 for project features jointly used by multiple business lines: HYD - 43.78%, NAV - 23.73%, and FRM - 32.49%. These Joint activities include \$500,000 to conduct a fit-for-service analysis of the project's tainter gates and sustainability activities of \$15,000 for an electric vehicle charging station, and \$125,000 to rehabilitate the projects potable water distribution system. Cumulative flood damages prevented, beginning to FY 2015, \$701 million. Plant installed generation capacity of 132 megawatts, produced \$19.4 million in power production in FY 2015. The project encompasses 35,391 land acres, 23,684 water acres with 90 miles of shoreline, and has a total reservoir storage capacity of 428,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 2,100,000 visits per year, generates approximately \$84.7 million in revenue, and sustains 820 jobs.

Division: Northwestern

District: Omaha

Gavins Point Dam, Lewis & Clark Lake, NE SD

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$522,000. There was an additional \$15,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Harlan County Lake, NE

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: A multi-purpose project that includes an earth-fill dam with a crest about 107 feet above original streambed; total length of 11,827 feet including a gate-controlled, concrete, gravity-type spillway; and reservoir located in south central Nebraska on the Republican River, 7 miles east of Alma and 60 miles south of Kearney, Nebraska. Project purposes include flood protection, irrigation, recreation, fish and wildlife, and water quality benefits to the south central Nebraska and north central Kansas regions.

FISCAL YEAR 2016 ALLOCATION: \$1,425,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance of the dam and other facilities, perform supervision and administration oversight of the on-going contract for tainter gate repair, replace irrigation trashracks, repatriation of eroding Native American remains, critical wildlife habitat improvement, and control of water consuming noxious weed and invasive species.

FISCAL YEAR 2017 ALLOCATION: \$4,393,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the dam and other facilities, repatriation of eroding Native American remains, critical wildlife habitat improvement, and control of water consuming noxious weed and invasive species. Non-routine work consists of \$2,000,000 for the rehabilitation of the irrigation facility and \$30,000 for sustainability to include water efficiency audit and delivery improvements.

BUDGETED AMOUNT FOR FY 2018: M: \$504,000 O: \$1,979,000 T: \$2,483,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,288,000 – Funding provides for operation and maintenance for flood risk management.

RC: \$785,000 – Funding provides for operation and maintenance for recreation facilities including campgrounds, day use parks, fishing decks and boat ramp facilities. A total of \$30,000 will be used for a formal periodic inspections and reports.

H: N/A

EN: \$410,000 – Funding provides for operation and maintenance for environmental stewardship and to protect fee-owned lands and waters against encroachments, and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests. Other activities include intensive land maintenance and enhancement for wildlife and cultural resources investigations. A total of \$220,000 will be used for the development of a historic properties management plan.

WS: N/A.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1953 totals \$3.8 billion with an average annual economic benefit of \$46.9 million. The project encompasses 30,249 land acres, 13,240 water acres with 75 miles of shoreline, and has reservoir storage capacity of 163,900 acre-feet. Agricultural irrigation is an authorized project purpose with delivery agreements between the Bureau of Reclamation and Bostwick Irrigation District providing water

Division: Northwestern

District: Kansas City

Harlan County Lake, NE

allocations up to 119,000 acre-feet of water per year to 22,500 acres of land in Nebraska and 42,500 acres in Kansas. It provides recreational programs, activities, and facilities that support approximately 607,000 visits per year, generates approximately \$21.3 million in revenue, and sustains 250 jobs. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,476,000. There was an additional \$4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Missouri River - Kenslers Bend, NE to Sioux City, IA

AUTHORIZATION: The River and Harbor Act of 1945 (PL 79-14)

LOCATION AND DESCRIPTION: Missouri River Kenslers Bend Project provides operation and maintenance of 15 miles of the Missouri River channel stabilization from Big Sioux Bend near Sioux City, IA to Ponca Bend near Ponca, Nebraska. Project features include dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes, chute closures, water control and water quality responsibilities.

FISCAL YEAR 2016 ALLOCATION: \$89,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$90,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$12,000 O: \$84,000 T: \$96,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$96,000 – Funding provides for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$222 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Papillion Creek and Tributaries Lakes, NE

AUTHORIZATION: River and Harbor Act of 1968 (PL 90-483) and the Federal Water Project Recreation Act (PL 89-72)

LOCATION AND DESCRIPTION: The Papillion (Papio) Creek Projects consist of Glenn Cunningham, Standing Bear, Zorinsky and Wehrspann Lakes and Dams, all of which are located within the Greater Omaha area. The Corps of Engineers built the dams and developed the initial recreation plan as part of the Papio Creek and Tributaries lakes project. The dams and reservoirs were built to reduce flood damage in the Papio Creek watershed. Recreational opportunities, wildlife habitat and improved water quality are additional benefits derived from the Papios. The Corps cooperates with other agencies to manage and protect the natural resources of these lakes and surrounding lands.

FISCAL YEAR 2016 ALLOCATION: \$774,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dams and other associated facilities. Significant non-routine work performed includes periodic assessment/inspection at Cunningham Dam and repair corroding bell and spigot rings at Wehrspan Dam.

FISCAL YEAR 2017 ALLOCATION: \$1,095,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dams and other associated facilities. Additional funds will be used to conduct a periodic inspection of Lake Zorinsky Dam and perform boundary inspection and marking (\$215,000).

BUDGETED AMOUNT FOR FY 2018: M: \$44,000 O: \$956,000 T: \$1,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$712,000 - Funding provides for routine operation and maintenance for flood risk management.

RC: \$25,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$263,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activity includes installation and recording of missing survey boundary markers and documentation of encroachments on all government property surrounding Lake Zorinsky (\$35,000) and Papio Sites 11, 16, and 20 (\$120,000).

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$86.3 million. The Papio Creek Projects encompass 4,192 land acres, 1,023 water acres with 22 miles of shoreline, and has a total reservoir storage capacity of 40,000 acre-feet. They provide recreational programs, activities, and facilities that support approximately one million visits per year, generates approximately \$18.5 million in revenue, and sustains 316 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$46,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Salt Creek and Tributaries, NE

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and the River and Harbor Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: The Salt Creek and Tributaries Flood Control Project in Nebraska was authorized by the Federal Flood Control Act of 1958 to provide flood damage reduction, water quality, recreation, and fish and wildlife enhancement. The basin drains a 1645 square mile area of southeastern Nebraska, encompassing the City of Lincoln. Salt Creek drains the southern and western part of the basin, while Wahoo Creek drains the northeastern portion. The ten Salt Creek Lakes cover 11,239 acres, of which 4,289 are surface acres of water. The Corps of Engineers leases all but one of its Salt Creek Reservoirs to the State of Nebraska Game and Parks Commission (NGPC). The NGPC refers to these projects as the Salt Valley Lakes. Holmes Lake is leased to the City of Lincoln, Nebraska

FISCAL YEAR 2016 ALLOCATION: \$1,118,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other facilities. Significant non-routine work performed includes conduct periodic assessments/inspections at Holmes Lake and Bluestem Dams.

FISCAL YEAR 2017 ALLOCATION: \$2,934,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities. Non-routine work to be performed includes construction of downstream seepage filters at Stagecoach, Wagon Train, Olive Creek, Pawnee and Branched Oaks, , major maintenance report for overtopping at all 10 Salt Creek Dams and periodic inspections at Wagon Train and Stagecoach, and surveys in support of 2018 Periodic inspections at Yankee Hill and Conestoga Dams.

BUDGETED AMOUNT FOR FY 2018: M: \$117,000 O: \$1,429,000 T: \$1,546,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,111,000- Funding provides for routine operation and maintenance for flood risk management. Non-routine activities include \$50,000 for agency technical review and comment response to finalize inflow design flood studies.

RC: \$23,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$412,000 – Funding provides for routine operation and maintenance for environmental stewardship. Funding includes \$310,000 for boundary inspection and marking at the various Salt Creek sites.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$276.9 million. The Salt Creek Projects encompass 10,129 land acres, 4,312 water acres with 65 miles of shoreline, and has a total reservoir storage capacity of 183,900 acre-feet. They provide recreational programs, activities, and facilities that support approximately 782,000 visits per year, generates approximately \$24 million in revenue, and sustains 209 jobs.

Division: Northwestern

District: Omaha

Salt Creek and Tributaries Lakes, NE

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$43,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NEVADA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Martis Creek Lake, NV & CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is 32 miles southwest of Reno. It consists of an earthen-fill dam and reservoir on Martis Creek, a tributary of Truckee River. The project is located in the Counties of Nevada and Placer of California and the County of Washoe of Nevada.

FISCAL YEAR 2016 ALLOCATION: \$916,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance for flood risk management, recreation and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,132,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance for flood risk management, recreation and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$364,000 O: \$978,000 T: \$1,342,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

NAV: N/A

FRM: \$970,000 - Funds will be used for routine operation and maintenance for flood risk management.

REC: \$184,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$188,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project is currently not fully able to provide the benefits for which it was designed and constructed due to seepage problems and seismic concerns. The Dam Safety Action Classification (DSAC) has changed from DSAC 1 (Very High Urgency) to DSAC 3 (Moderate Urgency). The primary reasons for the DSAC I classification were seepage and piping of the foundation or abutment materials and overtopping of the dam during a probable maximum flood event. However, more rigorous risk assessment efforts concluded that the actual observed and predicted seepage gradients and velocities are not anticipated to advance progression of the foundation materials at Martis Creek Dam. An Existing Condition Risk Assessment is currently underway to determine the appropriate remediation efforts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$95,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine and Mathews Canyons Dams, NV

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Pine Canyon Dam is 100 miles northeast of the city of Las Vegas, and Mathews Canyon Dam is 5 miles northeast of Pine Canyon Dam. Both dams are earthen-fill, with spillways, service roads, and reservoirs.

FISCAL YEAR 2016 ALLOCATION: \$349,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$393,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management and environmental stewardship, and for Master Plan compliance activities (\$60,000).

BUDGETED AMOUNT FOR FY 2018: M: \$255,000 O: \$132,000 T: \$387,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$345,000 - Funds will be used for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: \$42,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: There are no recreation facilities.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

NEW HAMPSHIRE

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Blackwater Dam, NH

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Blackwater Dam is located along the Blackwater River, about 8.2 miles upstream from its junction with the Contocook River. The project is located in the Towns of Webster and Salisbury, New Hampshire. Blackwater Dam is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,650 feet long with a maximum height of 28 feet; an uncontrolled ogee weir spillway, 240 feet wide with a maximum discharge capacity of 32,800 cubic feet per second; and four rectangular outlet conduits with four control gates, one of which is plugged. The reservoir provides a flood storage capacity of 46,000 acre-feet to control runoff from its net drainage area of 128 square miles.

FISCAL YEAR 2016 ALLOCATION: \$617,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$860,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$200,000 to complete a seepage analysis to determine the effectiveness of the grout curtain.

BUDGETED AMOUNT FOR FY 2018: M: \$333,000 O: \$602,000 T: \$935,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$751,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These fund include \$190,000 to conduct required periodic inspection and assessment of the project.

RC: \$58,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$126,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$124.4 million in flood damages since placed in service in 1941. The project provides recreation opportunities to an average of 12,000 visitors each year, and consists of 3,580 fee owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$94,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New England

Blackwater Dam, NH

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Edward McDowell Lake, NH

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Edward MacDowell Lake is located along Nubanusit Brook, a tributary of the Contoocook River, 31 miles southwest of Concord, New Hampshire. The project is located in the Towns of Peterborough, Hancock, Dublin and Harrisville, New Hampshire. Edward MacDowell Lake is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin.

FISCAL YEAR 2016 ALLOCATION: \$854,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$143,000 to complete repairs to the gate operators, the gatehouse roof and the electrical transformer and \$109,000 to implement dam safety recommendations including inspections.

FISCAL YEAR 2017 ALLOCATION: \$563,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$171,000 O: \$675,000 T: \$846,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$578,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections, \$90,000 to conduct required periodic inspection of the project, and \$53,000 to replace tide gauge and ventilation system for hazmat locker.

RC: \$72,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$196,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 12,800 acre-feet to control runoff from its net drainage area of 44 square miles. Project has prevented an estimated \$41.7 million in flood damages since placed in service in 1950. The project provides recreation opportunities to an average of 144,000 visitors each year and consists of 1,194 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$315,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Franklin Falls Dam, NH

AUTHORIZATION: The Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Franklin Falls Dam is located along the Pemigewasset River, about 2.5 miles upstream of Franklin, New Hampshire, in the Towns of Franklin, Hill, Bristol, Sanborton, and New Hampton, New Hampshire. The project is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$997,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$325,000 to paint the service bridge.

FISCAL YEAR 2017 ALLOCATION: \$809,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$29,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$110,000 to complete concrete repairs on the gatehouse bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$1,069,000 O: \$595,000 T: \$1,664,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,493,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. In addition, replace log boom (\$130,000).

RC: \$76,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$95,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The Franklin Falls Dam reservoir provides a flood storage capacity of 154,000 acre-feet to control runoff from its net drainage area of 1,000 square miles. Project has prevented an estimated \$499.6 million in flood damages since placed in service in 1943. Project provides recreation opportunities to an average of 101,000 visitors each year and consists of 3,897 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$44,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Hopkinton-Everett Lakes, NH

AUTHORIZATION: The Flood Control Act of 1938

LOCATION AND DESCRIPTION: Hopkinton Lake is located along the Contoocook River, about 17.3 miles upstream of its junction with the Merrimack River and one-half mile upstream from the Village of West Hopkinton, New Hampshire. Everett Lake is located along the Piscataquog River, about 16 miles upstream of its junction with the Merrimack River and about 1.3 miles southeast of the Village of East Weare, New Hampshire. Hopkinton-Everett Lakes are operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. Hopkinton Lake consists of an earth-filled dam with a spillway and a gate-controlled outlet. Everett Lake consists of an earth-filled dam with a spillway and a gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$1,335,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$33,000 for milfoil treatments at Hopkinton Lake.

FISCAL YEAR 2017 ALLOCATION: \$1,625,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$37,000 to conduct required bridge inspections and \$190,000 to conduct required periodic inspection. There is a total of \$65,000 for sustainability work on this project to install solar panels at the project office.

BUDGETED AMOUNT FOR FY 2018: M: \$740,000 O: \$1,409,000 T: \$2,149,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,726,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. In addition, non-routine work includes \$150,000 for servicing the limitorque gate operator assembly at Hopkinton Dam, \$280,000 to install piezometers in the right abutment of Everett Dam, and \$271,000 for gatehouse repairs.

RC: \$180,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$243,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Hopkinton-Everett Lakes project provide a total flood storage capacity of 92,500 acre-feet to control runoff from their net drainage areas of 446 square miles. The projects have prevented an estimated \$315.7 million in flood damages since placed in service in 1962. The projects provide recreation opportunities to an average of 178,000 visitors each year and consist of 7,992 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$158,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Otter Brook Lake, NH

AUTHORIZATION: The Flood Control Act of 1954.

LOCATION AND DESCRIPTION: Otter Brook Lake is located in Keene, New Hampshire, along Otter Brook, about 4.9 miles upstream from its junction with the Ashuelot River. Otter Brook Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,288 feet long with a maximum height of 133 feet; an uncontrolled ogee weir spillway, 145-feet wide with a maximum discharge capacity of 40,000-cubic feet-per-second; and a 6-foot diameter horseshoe-shaped outlet conduit with three control gates. The reservoir provides a flood storage capacity of 18,320 acre-feet to control runoff from its net drainage area of 47.2 square miles.

FISCAL YEAR 2016 ALLOCATION: \$733,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$40,000 to update the project master plan.

FISCAL YEAR 2017 ALLOCATION: \$775,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$11,000 to conduct required bridge inspections. There is a total of \$80,000 for sustainability work on this project to install solar panels at the project office.

BUDGETED AMOUNT FOR FY 2018: M: \$1,029,000 O: \$660,000 T: \$1,689,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,472,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections and \$90,000 to conduct required periodic inspection of the project. In addition, funds are provided to renovate the old operators quarters and upgrade the bathrooms (\$670,000), and upgrade the garage warm bay (\$25,000).

RC: \$90,000 – Provides for routine operation and maintenance. Activities include maintenance of project trails and recreation areas for visitor safety.

H: N/A

EN: \$127,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$103.8 million in flood damages since placed in service in 1958. The project provides recreation opportunities to an average of 77,000 visitors each year and consists of 458 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$14,000.

Division: North Atlantic

District: New England

Otter Brook Lake, NH

There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Surry Mountain Lake, NH

AUTHORIZATION: The Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Surry Mountain Lake is located along the Ashuelot River, about 34.6 miles upstream from its junction with the Connecticut River and 5 miles north of Keene, New Hampshire. The project is located in the Towns of Surry and Gilsum, New Hampshire. Surry Mountain Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an uncontrolled spillway and a gated outlet.

FISCAL YEAR 2016 ALLOCATION: \$1,053,000

DESCRIPTION OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections. In addition, non-routine work was funded for \$50,000 for work on the master plan; \$200,000 to complete roof repairs, replace utility poles, replace office restroom fixtures with ADA compliant fixtures, repair corroded flood gate and repair float well intake pipe; and \$145,000 to install piezometers and an observation well in the toe of the dam.

FISCAL YEAR 2017 ALLOCATION: \$810,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$3,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$100,000 to complete repairs to the Dort Road abutment and pier.

BUDGETED AMOUNT FOR FY 2018: M: \$457,000 O: \$734,000 T: \$1,191,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$933,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections and \$190,000 to conduct required periodic inspection and assessment of the project. In addition, non-routine work will be funded for \$160,000 to complete repairs to gate 3. Additional funds are provided to replace primary electric conductors to gatehouse (\$17,000).

RC: \$86,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$172,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 33,000 acre-feet to control runoff from its net drainage area of 100 square miles. Project has prevented an estimated \$370.7 million in flood damages since placed in service in 1941. The project provides recreation opportunities to an average of 108,000 visitors each year and consists of 1,695 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$19,000. There was an additional \$12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NEW JERSEY

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Absecon Inlet, NJ

AUTHORIZATION: River and Harbor Act of 1922 (P.L 67-362) and River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: The Inlet is located on the coast of New Jersey about 65 miles north of Delaware breakwater, between Brigantine Island on the north and Absecon Island on the south. It forms the entrance to the harbor at Atlantic City, NJ. The project provides for an inlet entrance 20 feet deep at mean low water and 400 feet wide, an entrance channel 15 feet deep and 200 feet wide from the inlet channel into Clam Creek, and a turning basin 15 feet within Clam Creek. The total length of the section included in the project is about 1.5 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$175,000 O: \$0 T: \$175,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$175,000 - Funds will be used to perform surveys and maintenance dredging of the inlet.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for commercial, recreational and U.S. Coast Guard use. The Fishing Fleet contributes approximately \$22 million in direct fish value each year (NOAA '14). The US Coast Guard Station Atlantic City is located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct search and rescue operations. A severe shoal at the entrance to Clam Creek is impacting navigation.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barnegat Inlet, NJ

AUTHORIZATION: House Document (HD) 73-19 as modified by HD 74-85, HD 79-358 and Supplemental Appropriations Act of 1985

LOCATION AND DESCRIPTION: The project is located on the Atlantic coast of New Jersey about 33 miles north of Atlantic City. The project consists of two jetties (north and south), a navigation channel 300-feet wide and 10-feet deep, a channel extending from the gorge in the inlet to Oyster Creek Channel to deep water in Barnegat Bay. Oyster Creek Channel is maintained at 8 feet deep and 200 feet wide. The project length is 4.5 miles and is classified as a low use, shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$771,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds are being used to perform maintenance dredging of the inlet and Oyster Creek and to perform channel exams.

FISCAL YEAR 2017 ALLOCATION: \$1,325,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform maintenance dredging of the inlet and to perform channel exams. Additional funding is provided to dredge Oyster Creek and Inlet Segment 2 (\$900,000).

BUDGETED AMOUNT FOR FY 2018: M: \$450,000 O: \$0 T: \$450,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$450,000 - Funds will be used to perform maintenance dredging of the inlet and to perform channel exams.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project provides a safe, reliable, and efficient navigation channel through a coastal inlet for a large fishing fleet which contributes \$30 million of economic value to the nation and over \$25 million per year in direct fish value (NMFS data, 2014). Barnegat Inlet requires dredging twice a year with the Government dredges CURRITUCK or MURDEN to keep a minimum channel open and free from navigation hazards for commercial navigation. Material dredged from the inlet is used beneficially by placing material in the near-shore zone in support of the Federal shore protection project along Long Beach Island.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$173,000. There was an additional \$247,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Cold Spring Inlet, NJ

AUTHORIZATION: House Document 59-338 as modified by House Document 77-262

LOCATION AND DESCRIPTION: Cold Spring Inlet connects the New Jersey Intracoastal Waterway with the Atlantic Ocean at Cape May, New Jersey. The project provides for two jetties; an entrance channel 25 feet deep and 400 feet wide from the ocean to 500 feet harbor-ward of the end of the jetties; and a channel 20 feet deep and 300 feet wide from the entrance channel to deep water in Cape May Harbor. The project length is about 2.25 miles and is classified as a, deep-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$921,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds are being used to perform maintenance dredging of the inlet using the government dredges CURRITUCK or MURDEN, contract dredging of the Cape May Harbor channel, improvement of the confined disposal facility on the Cape May Canal and channel surveys.

FISCAL YEAR 2017 ALLOCATION: \$375,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to perform maintenance dredging with the government dredges CURRITUCK or MURDEN and channel surveys.

BUDGETED AMOUNT FOR FY 2018: M: \$580,000 O: \$0 T: \$580,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$580,000 - Funds will be used to perform maintenance dredging with the government dredges CURRITUCK or MURDEN, channel surveys, and monitor the Cape May Inlet to Lower Township, NJ for beach erosion as a result of the channel and its structures.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Cold Spring Inlet provides a safe, reliable, and efficient navigation channel for the largest fishery landing in New Jersey, contributing \$59 million in direct fish value (National Marine Fisheries Service, 2014) and \$300 million of economic value annually. Cold Spring Inlet serves the U.S. Coast Guard Station Cape May and the U.S. Coast Guard enlisted training base. Shoaling in the entrance channel requires dredging with Government dredges CURRITUCK or MURDEN to maintain authorized depths and remove shoaling that presents navigation hazards. Material dredged from the inlet is beneficially used by placing material in the near-shore zone in support of the adjacent federal shore protection project along Cape May.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$139,000. There was an additional \$148,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Delaware River in the Vicinity of Camden, NJ

AUTHORIZATION: House Document (HD) 63-1120 (1919), as modified by HD 70-111 (1930), and HD 77-353 (1945). Water Resources Development Act of 1986 (PL 99-662) authorized modification work within Beckett Street Terminal project. The Water Resources Development Act of 1988 (PL 100-676) authorized the modification of the existing Delaware River in the vicinity of the Camden, New Jersey, project.

LOCATION AND DESCRIPTION: This project is located adjacent to the east channel edge of the Delaware River, Philadelphia to Sea project at Camden Marine and Beckett Street Terminals in Camden, New Jersey. It provides a 40-foot deep, irregular but generally trapezoidal shaped access channel to Berths #3 and #4 at Beckett Street Terminal. This channel provides access from the 40-foot by 400-foot wide east channel of the Delaware River, Philadelphia to the Sea project. The approach channel has lengths of 4,560 feet along the east edge of the Delaware River Shipping Channel and 1,630 feet along the west edge of the berthing area at the Beckett Street Terminal. The width of the channel varies from 1410 feet to 1660 feet. The approach angle is 45 degrees from the south and the departure angle is 45 degrees to the north. The project length is four miles and is classified as a high-use, deep-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for project monitoring.

FISCAL YEAR 2017 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for project monitoring.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$15,000 T: \$15,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$15,000 - Funds will be used for project monitoring.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$33,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Delaware River Philadelphia to the Sea, NJ, PA & DE

AUTHORIZATION: House Document (HD) 61-733 as modified by HD 71-304, River and Harbors Committee Document 73-5, Senate Document 75-159, HD 76-580, HD 77-340, HD 83-358 and HD 85-185.

LOCATION AND DESCRIPTION: The Delaware River Philadelphia to the Sea Federal navigation project extends from Allegheny Avenue, Philadelphia, 102 miles southward to the entrance of Delaware Bay, and is classified as a high-use, deep-draft waterway. Annual maintenance dredging is performed to maintain current authorized depth of 40 feet.

FISCAL YEAR 2016 ALLOCATION: \$23,010,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for condition surveys, annual unit-price contract maintenance dredging, maintenance dredging with Government dredge McFARLAND, required training, dredge material containment facility maintenance and dike construction, groundwater monitoring, leased equipment contracts, and real estate coordination.

FISCAL YEAR 2017 ALLOCATION: \$36,955,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for condition surveys, annual unit-price contract maintenance dredging, maintenance dredging with Government dredge McFARLAND, required training, dredge material containment facility maintenance and dike construction, groundwater monitoring, leased equipment contracts, and real estate coordination. Additional funds are provided for Disposal Area Maintenance Package # 4 (Pedricktown South) (\$1,000,000) and maintenance dredging for Deep Water and Cherry Island range (\$7,500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$25,370,000 O: \$2,000,000 T: \$27,370,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$27.370,000 - Funds will be used for condition surveys, annual unit-price contract maintenance dredging, maintenance dredging with Government dredge McFARLAND, required training, dredge material containment facility maintenance and dike construction, groundwater monitoring, leased equipment contracts, and real estate coordination on the newly constructed 45 foot deep navigation channel.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Delaware River Philadelphia to the Sea Federal navigation project is a 40-foot, high-use, deep-draft project, providing access to the fifth largest port complex in the United States, handling 120 million tons of cargo per year and providing \$3.5 billion to the regional economy. The port area is home to the largest petrochemical complex on the East Coast with seven oil refineries. The refineries along the Delaware River provide 75-percent of the East Coast's refining capacity with

capability of processing 1.1 million barrels of petrol per day. This project is designated as a Strategic Military Port.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,776,000. There was an additional \$6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Manasquan River, NJ

AUTHORIZATION: House Document 70-482 as modified by House Document 77-356 and Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: The Manasquan River, New Jersey project connects the New Jersey Intracoastal Waterway with the Atlantic Ocean. This navigation project provides for 2 jetties; and connecting channels from the Atlantic Ocean. The 1.5-miles of channel is classified as a low use, shallow-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$651,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform channel exams, maintenance dredging (two increments) with the government dredge CURRITUCK or MURDEN and monitor the project.

FISCAL YEAR 2017 ALLOCATION: \$420,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform channel exams, maintenance dredging of the inlet channel with the government dredge CURRITUCK or MURDEN and monitoring and management of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$420,000 O: \$15,000 T: \$435,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$435,000 - Funds will be used to perform channel exams, maintenance dredging with the government dredge CURRITUCK or MURDEN, and management and monitoring of the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Commercial fishermen and recreational boaters use the Manasquan River, NJ inlet, generating \$128 million of economic value to the nation and \$26 million in direct fish value annually (National Marine Fisheries Service, 2014). The US Coast Guard Station, Manasquan is located on the waterway. Depending on sequence of beach-fill operations to the north, the inlet needs be dredged two times per year to provide a safe navigation channel free of shoaling hazards. Material dredged from the inlet is beneficially used by placing material in the near shore zone in support of the adjacent federal shore protection project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$348,000. There was an additional \$238,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: New Jersey Intracoastal Waterway, NJ

AUTHORIZATION: House Document 76-133, as modified by Water Resources Development Act of 1986 (PL 99-662)

LOCATION AND DESCRIPTION: Project extends 117 miles from the Manasquan River to Delaware Bay and is used by commercial as well as recreational vessels. Project is classified as a low-use, shallow-draft waterway. The project includes the Point Pleasant Canal and related structures and the Cape May Canal with related structures including two rubble-mound jetties at the entrance to the Delaware Bay.

FISCAL YEAR 2016 ALLOCATION: \$911,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform channel exams, monitor and communicate project performance to the US Coast Guard and public, oversee and execute real estate instruments and overall project management of the 117 miles of waterway. Funds were also used to coordinate and develop improved and beneficial areas for placement of dredged material leading to more efficient dredging operations.

FISCAL YEAR 2017 ALLOCATION: \$2,210,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform channel exams, monitor and communicate project performance to the US Coast Guard and public, oversee and execute real estate instruments and overall project management of the 117 miles of waterway and perform maintenance dredging of the Cape May Lewes Ferry channel. Additional funds are provided for maintenance dredging for shoaling from Cape May to Manasquan (\$1,250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$705,000 O: \$275,000 T: \$980,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$980,000 - Funds will be used to perform channel surveys, communicate project performance to the U.S. Coast Guard and public, and execute real estate instruments and perform maintenance dredging of the ferry area.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project provides a channel for nine U.S. Coast Guard stations including the U.S. Coast Guard enlisted training base at Cape May, New Jersey. Dredged material placement is coordinated with the State of New Jersey and used beneficially for shore protection and ecosystem restoration where possible. Emergency Supplemental funds (post Hurricane Sandy and Irene) have been used to remove critical shoals from the waterway, repair the east side bulkhead along the Point Pleasant Canal, and repair the Lovelandtown bridge abutment along the Point Pleasant Canal.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$58,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: North Atlantic

District: Philadelphia

New Jersey Intracoastal Waterway, NJ

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newark Bay, Hackensack and Passaic Rivers, NJ

AUTHORIZATION: Adopted 1922, modified 1943, 1954, 1964, 1966, 1975 and 1985.

LOCATION AND DESCRIPTION: Newark Bay is an estuary about 1.25 miles wide and 6 miles long extending southerly from the confluence of the Hackensack and Passaic Rivers to the New York and New Jersey channels. Newark Bay contains the Port Newark/Elizabeth Marine terminal operated by the Port Authority of NY & NJ. The subject of this fact sheet is the 40 and 45 foot depth projects within the Newark Bay, primarily the port channels. The channels authorized to a 40 Ft. depth of the Federal project are Port Newark (PN) channel, the Port Newark Pierhead (PNPH) channel and a section of Main channel. The Elizabeth channel is authorized to a depth of 45 deep.

FISCAL YEAR 2016 ALLOCATION: \$10,241,000

DESCRIPTIONS OF WORK FOR FY 2016: Maintenance dredging of the various reaches of 40 foot Port Newark Marine Terminal. The Port Authority of New York and New Jersey pays the difference in cost for the processing and upland disposal of sediment beyond the cost for ocean disposal. Of the FY 16 funds allocated, \$2,819,000 is Donor and Energy Ports funds and will be used for the removal & beneficially reuse of contaminated sediments from the Port Newark berthing areas.

FISCAL YEAR 2017 ALLOCATION: \$18,197,000

DESCRIPTIONS OF WORK FOR FY 2017: Maintenance dredging of the various reaches of Port Newark Marine Terminal. Additional funds are provided for additional maintenance dredging (\$14,562,000).

BUDGETED AMOUNT FOR FY 2018: M: \$25,000,000 O: \$300,000 T: \$25,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$25,300,000 - Maintenance dredging of the various reaches of Port Newark Marine Terminal. This is a cost-shared project and construction is expected to be cost-shared with The Port Authority of New York and New Jersey. Completion of Plans and Specifications in preparation of the next maintenance dredging cycle.

FRM: N/A

RC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Institute of Water Resources Waterborne Commerce Statistics Report for 2005 reported over 33 million tons per year of bulk cargo, including 5.5 million tons of petroleum products. Other major commodities include coal, food products, manufactured goods and equipment, vehicles, and crude materials. Project is cost shared with The Port Authority of NY and NJ.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,220,000 of which \$2,819,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Passaic River Flood Warning Systems, NJ

AUTHORIZATION: The Water Resources Development Act of 1976 authorized the study of the Passaic flooding problem. The Water Resources Development Act of 1990 authorized the recurring operational and maintenance costs for the computerized flood warning system.

LOCATION AND DESCRIPTION: Passaic Basin, Northern New Jersey. The Basin has a history of significant chronic flooding. The system provides critical rain and stream gage information for weather forecasts and warnings; immediate information access by first responders for mitigation action; a network to receive instantaneous watches/warnings; and a forum of quarterly meetings for multi-agency coordination. The system integrates information flow and flood mitigation activities for multi-level response from federal, state, and local agencies, including five New Jersey counties and 12 high-risk municipalities.

FISCAL YEAR 2016 ALLOCATION: \$599,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to maintain existing stream and rain gauges to ensure they are fully functional and reporting accurate data users. Funds will also be used to repair or replace damaged equipment as needed. In addition funds will be used to host a user group meeting and coordinating with partners and users throughout the year.

FISCAL YEAR 2017 ALLOCATION: \$600,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to maintain existing stream and rain gauges to ensure they are fully functional and reporting accurate data for use by Emergency Management Offices and the public. Funds are also being used to repair or replace damaged equipment as required and to provide user training and coordination.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$605,000 T: \$605,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$605,000 – Funds will be used to maintain existing stream and rain gauges to ensure they are fully functional and reporting accurate data for use by Emergency Management Offices and the public. Funds will also be used to repair or replace damaged equipment as required. Additionally, funds will be used to conduct a Flood Warning System User Group meeting to facilitate user training and agency coordination. The efforts are important to provide accurate and timely reports and affect intergovernmental coordination and emergency planning. The net result is a reduced threat to life and property in the event of serious flooding.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This critical Flood Warning System (PFWS) is operated and maintained through an agreement with other federal and state agencies; specifically the U.S. Geological Survey and the New Jersey Department of Environmental Protection (NJDEP). Historical background of the Passaic Flood Warning System: Upon completion of the construction of the PFWS in the late 1980's, the local sponsor (NJDEP) became responsible for the O&M of the system however, several issues led Congress to enact legislation (through WRDA 1992) to return ownership and O&M responsibilities to USACE (with a

provision for 100% Federal funding). USACE in partnership with the US Geological Survey are responsible for the operation and maintenance of the system as well as the day-to-day operations.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$266,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River to Arthur Kill Cut-Off, NJ

AUTHORIZATION: Rivers and Harbors Act of 1935

LOCATION AND DESCRIPTION: The project is a deep draft, high-use commercial channel located in Raritan Bay at the southern tip of Staten Island, New York, and Perth Amboy, New Jersey. Project connects the Raritan River channel with the southern end of the New York and New Jersey channel.

FISCAL YEAR 2016 ALLOCATION: -\$100,000

DESCRIPTIONS OF WORK FOR FY 2016: Caretaker status to monitor channel conditions, survey, publish a Controlling Depth Report, and coordinate with US Coast Guard, local stakeholders, and channel users.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 – Caretaker status to monitor channel conditions, survey, publish a Controlling Depth Report, and coordinate with US Coast Guard, local stakeholders, and channel users.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project was last dredged in 2000. The project is dredged approximately every 10 years. About two million tons of commodities, primarily petrol, stone and gravel, pass through this waterway annually including tankers drafting up to 20 feet.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,332,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River, NJ

AUTHORIZATION: River and Harbor Act of 1919 as modified by the River and Harbor Acts of 1930, 1937, and 1940.

LOCATION AND DESCRIPTION: Raritan River, New Jersey is 24 miles south of the Battery in New York City. Raritan River joins both Lower Raritan Bay and New York and New Jersey Channels. The existing high-use, deep-draft navigation project provides for a 25-foot depth in the main channel.

FISCAL YEAR 2016 ALLOCATION: \$149,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for caretaker activities including preparation of Controlling Depth Reports and condition status communications to stakeholders. The next cycle of maintenance dredging will need to remove the critical shoals affecting navigational safety on this deep draft waterway.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$220,000 T: \$220,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$220,000 – Engineering and design, including sampling and testing, for the next cycle of maintenance dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Three terminal facilities located on the Raritan River receive and ship petroleum products by vessel and barge. A total of 11 million barrels of petroleum are carried by this waterway.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$172,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sandy Bay Hook at Leonardo, NJ

AUTHORIZATION: Rivers and Harbors Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: An entrance channel, 8ft. deep, 150 ft. wide, and about 2,500 ft. long from the 8 foot contour in Sandy Hook Bay to the entrance of the small boat harbor at Leonardo. Length – about 0.5 mile.

FISCAL YEAR 2016 ALLOCATION: -\$150,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 – Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with US Coast Guard and local stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Pleasure craft, marine police and recreational fishing vessels utilize the channel. The marinas contain approx. 200 boat slips servicing recreational vessels, a head pump out boat, and charter boat.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shark River, NJ

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Project is the inlet located between Avon-by-the-Sea and Belmar, New Jersey. Project consists of a coastal inlet and back-bay channel, comprised of a channel 18-feet deep and 150-feet wide across the bar at the ocean inlet; then decreasing in depth to 12-feet deep and width of 100 feet between the ocean and the bay and then 8 feet deep to the upper limits of the Bay to the Belmar Boat Basin. The project is classified as a low-use channel and a harbor of refuge.

FISCAL YEAR 2016 ALLOCATION: \$949,000

DESCRIPTIONS OF WORK FOR FY 2016: Maintenance dredging of the entrance to the inlet using the government dredge CURRITUCK.

FISCAL YEAR 2017 ALLOCATION: \$850,000

DESCRIPTIONS OF WORK FOR FY 2017: Maintenance dredging of the entrance to the inlet using the government dredge CURRITUCK. Additional funds are provided for additional maintenance dredging - 2nd cycle (\$430,000).

BUDGETED AMOUNT FOR FY 2018: M: \$990,000 O: \$0 T: \$990,000 /1

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$990,000 – Two cycles of maintenance dredging of the entrance to the inlet using the government dredge CURRITUCK.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project provides navigation access for commercial fishing vessels and a U.S. Coast Guard Station. Dredged sand is placed in the near shore area creating a temporary berm that provides some erosion and shore protection to the beach.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$189,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shoal Harbor and Compton Creek, NJ

AUTHORIZATION: Rivers and Harbors Act of 1954 (P.L. 86-645)

LOCATION AND DESCRIPTION: Shoal Harbor and Compton Creek are located adjacent to Lower Raritan Bay in the vicinity of western Sandy Hook Bay. The existing navigation project provides for a main Shoal Harbor channel that begins at -12 feet, extending from deep water in Sandy Hook Bay. Then the channel becomes -8 feet, continuing inland for approximately 1,000. At this point, the Compton Creek portion of the project has not been constructed and is therefore inactive.

FISCAL YEAR 2016 ALLOCATION: -\$150,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 - Funds will be used for caretaker activities to publish survey data (Controlling Depth Reports) and communicate with stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The waterway is vital to a large fishing fleet and commuter ferry business to New York City. The seafood products wharf supports numerous fishing boat moorings and 400 feet of berthing space (IWR Port Series 2000). Menhaden accounted for 2/3 of the fish landings in Belford in 2014. Most finfish is handled thru the Fishing Cooperative. Other trawl fishing accounts for balance of landings. NY Waterways Fast Ferry has 12 departures/arrivals daily.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$180,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Shoal Harbor and Compton Creek, NJ

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shrewsbury River, NJ

AUTHORIZATION: Rivers and Harbor Act of 1919 (P.L. 86-645)

LOCATION AND DESCRIPTION: A channel 12 ft. deep, 300 ft. wide, following the westerly shore from deep water in Sandy Hook Bay to a point 600 ft. south of the former location of the R.R. Bridge at Highlands. Length – about 2.2 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 – Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with US Coast Guard and local stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: IWR WCS 2014 reports over 15,295 total vessel trips. No commerce was reported.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NEW MEXICO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Abiquiu Dam, NM

AUTHORIZATION: Flood Control Acts of 1948, 1950, and 1960
Water Resources Development Act of 1986 and
Energy and Water Development Appropriations Act of 1997 (emergency gates)
P.L. 87-483, 1962 - (authorized the San Juan-Chama Project to transfer interbasin water)
P.L. 97-140, 1981 - (authorized the storage of that water in Abiquiu Reservoir)

LOCATION AND DESCRIPTION: Abiquiu Dam is located in the County of Rio Arriba, six miles west of the town of Abiquiu, NM and 120 miles north of the city of Albuquerque. The dam is 32 miles upstream from the confluence of the Rio Chama and the Rio Grande. The project consists of an earthen-fill dam, reservoir, outlet works, spillway, recreation facilities, and a non-Federal hydroelectric facility.

FISCAL YEAR 2016 ALLOCATION: \$3,323,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply. Non-routine activities included a partnership with Los Alamos County for critical vent pipe repairs in order to re-start power plant generation which was offline since August 2015.

FISCAL YEAR 2017 ALLOCATION: \$3,263,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, environmental stewardship, and water supply.

BUDGETED AMOUNT FOR FY 2018: M: \$1,100,000 **O:** \$2,337,000 **T:** \$3,437,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,110,000 - Funds will be used for routine operation and maintenance for flood risk management projects. Amount includes \$130,000 for non-routine maintenance activities (repair of the service gate seals).

RC: \$969,000 - Funds will be used for routine operation and maintenance for recreation. Amount includes \$140,000 for modernization of recreation features (new boat dock and replacement of playground equipment).

H: N/A

EN: \$280,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: \$78,000 – Funds will be used to the advanced funding for the storage of water for the San Juan-Chama Project. The San Juan-Chama contractors are billed for the operation and maintenance costs associated with water supply and storage at the end of the year.

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$561,897,000, sediment control benefits \$6,270,000, and irrigation benefits \$0.

Division: South Pacific

District: Albuquerque

Abiquiu Dam, NM

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$250,000. There was an additional \$28,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cochiti Lake, NM

AUTHORIZATION: River and Harbor Act of 1960, Title II; Supplemental Authorization P.L. 88-293 (1964); and Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: Cochiti Lake is located in the County of Sandoval, on land owned by the Cochiti Nation. It is 50-river-miles north of the city of Albuquerque, New Mexico, at river-mile 340 on the Rio Grande. The project consists of an earthen-fill dam, spillway, outlet works, and recreation facilities. Cochiti Lake is authorized to maintain a 1,200-surface-acre, permanent recreation pool using water from the San Juan-Chama project of the US Bureau of Reclamation, and sufficient water annually to offset evaporation from the area.

FISCAL YEAR 2016 ALLOCATION: \$3,240,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$3,452,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$945,000 O: \$2,233,000 T: \$3,178,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,166,000 – Funds will be used for routine operation and maintenance for flood risk management.

RC: \$789,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$223,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$651,299,000 sediment control benefits \$4,793,000, and irrigation benefits \$0.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$252,000. There was an additional \$26,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conchas Lake, NM

AUTHORIZATION: Emergency Relief Act of 1935, Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Conchas Dam and Reservoir is 34 miles northwest of the town of Tucumcari in the County of San Miguel, New Mexico. It is located on the Canadian River 743 miles upstream from the mouth of the Canadian and Arkansas Rivers. Conchas Dam and Reservoir drainage area is 7,409 square-miles. The project consists of a concrete dam structure, earthen-fill embankments, a reservoir, outlet works, and recreation facilities. A State Park is also located at the project.

FISCAL YEAR 2016 ALLOCATION: \$2,732,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$3,137,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$4,324,000 O: \$1,445,000 T: \$5,769,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,782,000 - Funding will be used for routine operation and maintenance for flood risk management. Non-routine activities include electrical system NEC compliance upgrade for the administrative complex (\$2,300,000).

RC: \$708,000 - Funding will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$279,000 - Funding will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$81,000, sediment control benefits \$5,855,000, and irrigation benefits \$12,898,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$68,000. There was an additional \$16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Galisteo Dam, NM

AUTHORIZATION: Rivers and Harbors Act of 1960, Title II (PL 86-845)

LOCATION AND DESCRIPTION: Galisteo Dam is 45 miles north of the city of Albuquerque and 20 miles southwest of the city Santa Fe in the County of Santa Fe. It is located on Galisteo Creek twelve miles upstream from its confluence with the Rio Grande. The project consists of an earthen-fill dam, spillway, and outlet works. Dam safety modifications were completed in 1998 to raise the dam and widen the spillway to the present configuration.

FISCAL YEAR 2016 ALLOCATION: \$612,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$772,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$269,000 O: \$631,000 T: \$900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$686,000 - Funds will be used for routine operation and maintenance for flood risk management.

RC: \$69,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$145,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$45,327,000, sediment control benefits \$218,000, and irrigation benefits \$0. Efforts will be made to continue the control of invasive species, primarily salt cedar, within the upstream basin and on the upstream face of the dam. This ongoing eradication effort will be followed by area restoration with native vegetation.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$84,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jemez Canyon Dam, NM

AUTHORIZATION: Flood Control Acts of 1948 and 1950

LOCATION AND DESCRIPTION: Jemez Canyon Dam is located in the County of Sandoval five miles northwest of the city of Bernalillo and 25 miles northwest of the city of Albuquerque. It is located on the Rio Jemez 2.8 miles upstream from its confluence of the Rio Grande. The project consists of an earthen-fill dam, a spillway, outlet works, and recreation facilities.

FISCAL YEAR 2016 ALLOCATION: \$936,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,085,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$302,000 **O:** \$451,000 **T:** \$753,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$640,000 - Funds will be used for routine operation and maintenance for flood risk management.

RC: \$66,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$47,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$60,923,000, sediment control benefits \$2,068,000, and irrigation benefits \$0. Work continues on addressing impacts to the Santa Ana Pueblo's ancestral Tamaya village, that has drainage problems attributable to USACE construction of a "ring levee" for high flood storage protection.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$152,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Middle Rio Grande Endangered Species Collaborative Program (MRGESCP), NM

AUTHORIZATION: Energy and Water Development Appropriations Act, 2006, Consolidated Appropriations Act, 2008, and Omnibus Appropriations Act, 2009.

LOCATION AND DESCRIPTION: The program is located in the Middle Rio Grande from the Colorado border to the headwaters of Elephant Butte in New Mexico. It supports the 2003 Biological Opinion and all subsequent revisions. The Middle Rio Grande Endangered Species Collaborative Program is a multi-stakeholder partnership to protect and improve the status of endangered species along the Middle Rio Grande of New Mexico while simultaneously protecting existing and future regional water uses.

FISCAL YEAR 2016 ALLOCATION: \$2,475,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine continued participation in the multi-stakeholder partnership program.

FISCAL YEAR 2017 ALLOCATION: \$2,367,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine continued participation in the multi-stakeholder partnership program.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$2,500,000 T: \$2,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,500,000 – Funds will be used to continue collaborative efforts in conjunction with fifteen other agencies and stakeholders to accomplish activities described in the Congressional authority and the Program's Long Term Plan. These efforts include program support and project management; monitoring of completed habitat restoration projects; studying hydrologic effects of flood control structures through data analysis and sediment modeling studies; analysis of life history of the Rio Grande silvery minnow and Southwest Willow Flycatcher through field studies and monitoring.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$75,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: Albuquerque

Middle Rio Grande Endangered
Species Collaborative Program, NM

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Rosa Dam and Lake, NM

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Santa Rosa Dam and Lake is in the County of Guadalupe seven miles north of the city of Santa Rosa and 120 miles from the city of Albuquerque. It is located on the Pecos River at river mile 766.4. The project consists of an earthen-fill dam, a spillway, a reservoir, outlet works and recreation facilities. A New Mexico State Park is also located at the project.

FISCAL YEAR 2016 ALLOCATION: \$1,706,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$1,712,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$609,000 O: \$974,000 T: \$1,583,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,161,000 - Funds will be used for routine operation and maintenance for flood risk management. Amount includes \$200,000 for critical non-routine maintenance (sandblasting and painting service and emergency gates).

RC: \$236,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$186,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$8,593,000, sediment control benefits \$2,343,000, and irrigation benefits \$6,064,000. The project has an identified environmental liability caused by mercury in the reservoir sediments.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$227,000. There was an additional \$12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Two Rivers Dam, NM

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: The project is located in the County of Chaves County, 14 miles southwest of the city of Roswell. Operation and Maintenance (O&M) of the project is accomplished by contracting with the Chaves County Flood Control Commission. The project consists of two earthen-fill dams (one on the Rio Hondo and the other on Rocky Arroyo, tributaries of the Pecos River), a reservoir, and a spillway.

FISCAL YEAR 2016 ALLOCATION: \$1,187,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$599,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance of the project for flood risk management, recreation, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$259,000 O: \$333,000 T: \$592,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$508,000 - Funds will be used for routine operation and maintenance for flood risk management.

RC: \$50,000 - Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$34,000 - Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2016: flood control damages prevented \$436,076,000, sediment control benefits \$1,199,000, and irrigation benefits \$0.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$464,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Upper Rio Grande Water Operations Model (URGWOM), NM

AUTHORIZATION: Flood Control Act of 1944, Section 7

LOCATION AND DESCRIPTION: The project is focused on the Rio Grande System Hydrologic Unit Code Region 13, Sub regions 1301 to 1309. URGWOM is a computational model developed through an interagency effort and is used to simulate processes and operations of facilities. It also facilitates flood risk management operations, forecasting, accounting, and management of water in the Rio Grande Basin. The project is a critical component used by the U.S. Army Corps of Engineers and other Federal agencies to develop operational scenarios for Endangered Species Act Compliance. URGWOM is also a key tool used to provide water managers with a transparent, consistent, and common set of data to support water management decisions.

FISCAL YEAR 2016 ALLOCATION: \$1,287,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 activities included accounting and management of water in the Rio Grande basin, including water quality monitoring, forecasting, and software development and maintenance.

FISCAL YEAR 2017 ALLOCATION: \$1,300,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for accounting and management of water in the Rio Grande basin, including water quality monitoring, forecasting, and software development and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,300,000 T: \$1,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,300,000 - Funding will be used for routine operation and management of daily water operations modeling, including forecasting, model refinement and testing, salinity modeling, and studies to assess water operations flexibilities, as well as stakeholder coordination and involvement.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: URGWOM is an important tool for completing long-term planning studies to evaluate impacts of changes to the system or proposed actions analyzed as potential solutions for addressing the water needs in the basin. It is a critical tool for accounting and managing water in the Rio Grande watershed.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$35,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: South Pacific

District: Albuquerque

Upper Rio Grande Water
Operations Model (URGWOM), NM

NEW YORK

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Almond Lake, NY

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act 1938 and described in House Document Number 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Almond Lake is near Hornell, New York on Canacadea Creek, a tributary of the Canisteo River, which flows into the Chemung River. Chemung River flows into the Susquehanna River. The dam is an earthen-fill structure, 1,260-feet long rising 90-feet above the streambed, with a gated-outlet conduit in the left abutment, and a concrete spillway in a natural saddle beyond the left abutment. The reservoir has a storage capacity of 14,800 acre-feet at the spillway crest and has an area of 490 acres when filled to that level. The project controls a drainage area of 56 square miles or 36 percent of the watershed of the Canisteo River upstream from Hornell. An additional portion of the watershed is controlled by Arkport Dam. The project forms part of the protection for Hornell, Canisteo, and Addison and reduces flood heights at other localities on the Canisteo and Chemung rivers.

FISCAL YEAR 2016 ALLOCATION: \$435,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for flood risk management operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$437,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for flood risk management operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

BUDGETED AMOUNT FOR FY 2018: M: \$102,000 **O:** \$386,000 **T:** \$488,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: NA

FRM: \$454,000 - Funding will provide for flood risk management operation and maintenance.

RC: \$15,000 - Funding will provide for coordination with the recreation leasee.

H: NA

EN: \$19,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: NA

OTHER INFORMATION: Steuben County operates and maintains the Kanakadea Recreation Area under a real estate agreement. Operation of the project provides benefit to a population at risk of 300,000. Flood damages prevented through FY2014 are \$140 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$11,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arkport Dam, NY

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938 and described in House Document 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Arkport Dam is located near Hornell, New York, on the Canisteo River, a tributary of the Chemung River, which flows into the Susquehanna River. The dam is an earthen-fill structure, 1,200-feet long and rising 113 feet above the streambed, with a concrete spillway and an un-gated outlet in the right abutment.

FISCAL YEAR 2016 ALLOCATION: \$304,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$305,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam and natural resources protection and conservation.

BUDGETED AMOUNT FOR FY 2018: M: \$68,000 O: \$277,000 T: \$345,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$337,000 - Funding will provide for routine operation and maintenance.

RC: N/A

H: N/A

EN: \$8,000 - Funding will provide for natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 300,000. Flood damages prevented are estimated through FY2014 at \$49 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$44,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bay Ridge and Red Hook Channels, NY

AUTHORIZATION: River and Harbor Act of 1890 modified 1894, 1896, 1905, 1909, 1910 and 1930.

LOCATION AND DESCRIPTION: A channel, 40 ft. deep, of the following widths: 1,200 ft. from the Narrows to Bay Ridge Avenue, Brooklyn, thence 1,750 ft. to the junction of Bay Ridge and Red Hook Channels, and thence 1,200 ft. through Red hook Channel to its junction with Buttermilk Channel. In the entrance to Gowanus Creek, the width narrows uniformly to 500 ft. at 28th Street, Brooklyn. Length – about 4.0 miles.

FISCAL YEAR 2016 ALLOCATION: -\$248,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 - Funds will be used for preliminary engineering and design and caretaker activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION:

Over 1,000 vessel trips carrying over 2 million tons pass through this busy high use commercial channel connecting New York Harbor with the Brooklyn piers. Traffic includes receipt of foreign freight traffic of primarily cocoa beans and coffee as well as well as domestic receipt of petroleum products and crude materials.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,178,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Bay Ridge and Red Hook Channels, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Rock Channel and Tonawanda Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1888, 1916 (P.L. 63-291), 1919 (P.L. 65-200), 1922 (P.L. 67-362), 1925 (P.L. 68-585), 1935 (P.L. 74-409), 1945 (P.L. 79-14) and the Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Black Rock Channel and Tonawanda Harbor is a low-use, deep draft harbor located on Niagara River in the city of Buffalo, Erie County, NY. It provides vessels of all types a protected waterway around the reefs, and swift currents that exist in the upstream portions of the Niagara River. The lock and channel permit commercial vessels and pleasure crafts to travel between Buffalo Harbor and Tonawanda Harbor and enables further transit to the Hudson River and Atlantic Ocean through the New York State Canal.

FISCAL YEAR 2016 ALLOCATION: \$1,598,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for routine operation and maintenance (O&M) including lock functions, project condition surveys, periodic inspection, and execution of the Historic Properties Management Plan.

FISCAL YEAR 2017 ALLOCATION: \$1,785,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will be used for routine O&M including lock functions, project condition surveys, and execution of the Historic Properties Management Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$596,000 O: \$1,238,000 T: \$1,834,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,829,000 - Funding will be used for routine O&M for navigation, including lock functions and project condition surveys.

FRM: N/A

RC: N/A

H: N/A

EN: \$5,000 - Funding will be used for execution of the Historic Properties Management Plan.

WS: N/A

OTHER INFORMATION: The channel and lock provide the only means for deep draft commercial vessels to reach delivery ports on the upper Niagara River, and are critical links in the only inland navigation route between the Atlantic Ocean and Great Lakes. In calendar year 2013, 1591 lockages were performed, consisting of 386 commercial vessels (carrying 99,000 tons of commerce) and 1742 recreational vessels. Major stakeholders include U.S. Coast Guard, Marathon Ashland Petroleum, NOCO Energy Corp., United Refining Co., and NRG Huntley Power Plant.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Buffalo

Black Rock Channel and
Tonawanda Harbor, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bronx River, NY

AUTHORIZATION: Rivers and Harbors Act of 1910

LOCATION AND DESCRIPTION: A channel, 10 ft. deep, at least 100 ft. wide, from the East River to the dam at East 177th Street, including the widening of bends; the first dredging to include a section from the East River to Randall Avenue 200 ft. wide, thence a section to Spofford Avenue 150 ft. wide, thence a section to Watson Avenue 125 ft. wide, thence a section to the railroad bridge near Westchester Avenue 100 ft. wide, except in the south approach to the bridge where it is to be 140 ft. wide, and thence 100 ft. wide to head of navigation. Length – about 3.3 miles. Navigable for 2.6 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 – Caretaker - Monitor conditions and prepare controlling depth reports (CDR), update fact sheets and coordinate with natural resource agencies as appropriate.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Per 2014 IWR WCS, there are 2 commercial facilities on this waterway, one of which ships scrap metal by barge and requires a 10 ft. depth at Mean Low Water. The other is a sand and gravel facility. Total commodities are 331,000 short tons. Shallow Draft.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Browns Creek, NY

AUTHORIZATION: Rivers and Harbors Act of 1910

LOCATION AND DESCRIPTION: A channel 6 ft. deep, 100 ft. wide from 6 ft. contour in Great South Bay to a point 250 ft. upstream from inshore end of jetties and thence 4 ft. deep, 100 ft. wide to the head of navigation. Length – about 1.0 mile.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$30,000 T: \$30,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$30,000 – Caretaker - Monitor conditions and prepare controlling depth reports (CDR), update fact sheets and coordinate with natural resource agencies as appropriate.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Ferries bring tens of thousands of passengers to National Seashore resulting in multi-million dollar annual revenue to Sayville and other Fire Island communities. Boatyards service commercial vessels, recreational craft, fishing trawlers & party fishing boats. Per IWR WCS 2014, over 21,000 vessel trips were documented. Continued deferred maintenance risks project failure and channel closure with ferries unable to safely navigate to mouth of river.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffalo Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1826, 1866, 1874, 1900, 1910 (P.L. 60-317), 1912 (P.L. 61-425), 1919 (P.L. 65-200), 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). WRDA of 1986 (P.L. 99-662), 1988 (P.L. 100-676) and 2007 (P.L. 110-114)

LOCATION AND DESCRIPTION: Buffalo Harbor is a moderate-use, deep-draft commercial harbor, located on Lake Erie in the city of Buffalo, Erie County, NY, whose authorized depths are 23 to 30 feet in the outer harbor and 22 feet in the river.

FISCAL YEAR 2016 ALLOCATION: \$317,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for engineering and design of the South Breakwater which includes completion of the Design Documentation Report, Plans and Specifications, and all support activities (survey, below water inspection dive, value engineering study, Record of Environmental Consideration and/or Environmental Analysis permitting, and reviews).

FISCAL YEAR 2017 ALLOCATION: \$7,250,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will be used to dredge approximately 100,000 CY of sediment that has accumulated in the harbor channel. Funds will also be used to repair approximately 100 linear feet of Confined Disposal Facility exterior containment structure. Additional funds will be used to perform maintenance dredging (\$350,000), Construction for south breakwater repair (\$4,000,000), and engineering and design for north breakwater repair (\$250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,500,000 O: \$0 T: \$2,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,500,000 - Funding will be used for critical repairs to CDF #4 exterior containment dike. Work is required to replace deteriorated or missing armor stone to ensure the CDF continues to operate as intended.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Buffalo Harbor is the 148th leading U.S. port with 826,264 tons of material shipped or received in 2013 and is ranked 31st among the Great Lakes ports. The project provides deep-draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Port of Buffalo, U.S. Coast Guard, General Mills, Exxon-Mobil, Lafarge Cement, and Founders Supplies. Bulk commodities that pass through Buffalo Harbor generate approximately \$50,000,000 annually in revenue.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$154,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Buffalo

Buffalo Harbor, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buttermilk Channel, NY

AUTHORIZATION: River and Harbor Act of 1902 modified 1935 and 1962.

LOCATION AND DESCRIPTION: The project is located in New York Harbor and provides for a channel 1,000 feet wide; 500 feet wide and 40 feet deep along the easterly side and 500 feet wide and 35 feet deep along the westerly side with suitable widening at the junctions with the East River and Anchorage Channels; additional width of 2,100 feet to a depth of 35 feet at the junction with Anchorage and Red Hook Channels. The total length of the project is approximately 2.3 miles.

FISCAL YEAR 2016 ALLOCATION: -\$3,419,000

DESCRIPTIONS OF WORK FOR FY 2016: Maintenance Dredging with HARS placement to restore authorized dimensions and navigational safety to the users of this high use deep draft channel.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Caretaker. Basic coordination with natural resource agencies, preparation of controlling depth reports, and communication with stakeholders.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project supports deep-draft commercial navigation to the Port of New York and New Jersey, and access to numerous commercial locations. The channel is dredged, at different locations, on a five-year cycle.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$230,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East River, NY

AUTHORIZATION: Rivers and Harbors Act of 1869 and subsequently modified by the River and Harbors Act of 1877, 1899, 1916, 1922 and 1970.

LOCATION AND DESCRIPTION: East River is located to the east of Manhattan, NY. East River Navigation project is a main channel 16 miles long, 1,000 ft. wide that meanders from the Upper New York Bay to the Long Island Sound. There are three short branch channel off of the main channel; 1) east of Welfare Island, 2) east of South Brother Island, called South Brother Island channel and 3) a channel west of South Brother Island.

FISCAL YEAR 2016 ALLOCATION: \$4,978,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to award a maintenance dredging contract of the shoals in the South Brother Reach. Funds are also being used for caretaker activities such as: publishing a Controlling Depth Report, monitoring conditions of the Federal channel, and coordinating with United States Coast Guard and local stakeholders.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$100,000 O: \$0 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 - Funds will be used to initiate Engineering and Design for the next maintenance dredging cycle and for Caretaker status which includes activities such as: publishing a Controlling Depth Report, monitoring conditions of the Federal channel, and coordinate with Coast Guard and local stakeholders.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: 25 Million tons of through traffic use this channel annually. Two terminal facilities: a Con Edison Electric generating plant and a 1,090 MW Astoria Generating Station receive fuel by vessel for plant consumption. Risk of oil spills if channels not maintained. High shoal rate in channel. Last dredged in FY 06. Testing for ocean disposal required in 2010 for 2011 dredging. Dredging Delay will affect the safe delivery of petroleum products; users will have to travel light-loaded or wait for tides.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,820,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Rockaway Inlet, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1930, Public Law 520, with recommendations contained in House Doc. 19, 71st Congress.

LOCATION AND DESCRIPTION: East Rockaway Inlet is located along the south shore of New York City. The periodic maintenance of the channel is necessary to restore navigational safety to the multiple users of this dynamic, rapidly shoaling inlet where fuel tanker groundings have occurred numerous times during the past decade.

FISCAL YEAR 2016 ALLOCATION: \$218,000

DESCRIPTIONS OF WORK FOR FY 2016: Engineering and Design (including Plans & Specs) to prepare for the next critical dredging cycle and to monitor channel conditions, publish controlling depth reports and coordinate with local interests

FISCAL YEAR 2017 ALLOCATION: \$7,000,000

DESCRIPTIONS OF WORK FOR FY 2017: Award a contract and perform maintenance of approximately 250,000 CYs of sand with placement along severely eroded sections of the Rockaways between 9th and 39th streets.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 – Caretaker. Monitoring, preparation of controlling depth reports, and coordination with natural resource agencies in post-dredging year.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Waterway typically used to transport 150,000 tons of freight, with 72,000 tons of petroleum products annually. Commerce to five fuel oil terminals at Oceanside, Inwood and Lawrence supply industry and home heating fuel to a significant portion of the region's market. Commercial fishing fleet also are located in Oceanside. Delay of dredging affects safe delivery of petroleum products to Queens and Nassau Counties and has led to severe accidents in prior cycles.;

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$105,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Sidney Lake, NY

AUTHORIZATION: Flood Control Act of 1936, as amended by Flood Control Act of 1938.

LOCATION AND DESCRIPTION: East Sidney Lake is located on Ouleout Creek, five miles above the confluence of Ouleout Creek with the Susquehanna River and six miles upstream from Unadilla, New York. The dam is a combined earthen-fill and concrete gravity-type structure with a spillway and gate-controlled outlets in the concrete section.

FISCAL YEAR 2016 ALLOCATION: \$925,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, coordination with the recreation leasee, natural resources protection and conservation, updating of the master plan, and initiation of a cultural resources management plan.

FISCAL YEAR 2017 ALLOCATION: \$764,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation. In addition, completion of master plan and NEPA (\$112,000).

BUDGETED AMOUNT FOR FY 2018: M: \$150,000 O: \$647,000 T: \$797,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$655,000 - Funding will provide for routine operation and maintenance.

RC: \$19,000 - Funding will provide for coordination with the recreation leasee.

H: N/A

EN: \$123,000 - Funding will provide for natural resources protection and conservation, ecosystem management, safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The project forms part of the flood protection for Binghamton, New York. The project receives runoff from a drainage area of 102 square miles, exclusive of the separately-controlled Chenango River. Operation of the project provides benefit to a population at risk of 305,000. Flood damages prevented are estimated through FY2014 at \$280 million. The Town of Sidney, New York, operates and maintains the East Sidney recreation area under a real estate agreement.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$97,000. There was an additional \$24,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Chester Creek, NY

AUTHORIZATION: River and Harbor Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: A channel 10 ft. deep at mean low water and generally 150 ft. wide from Long Island Sound through East Chester Bay to a point 700 ft. wide extending to a point where the creek divides into a Y, thence approximately 1,000 ft. into the east branch and approximately 500 ft. into the west branch; a passing basin south of the Boston Post Road Bridge; widening of the channel at the Boston Post Road Bridge; and for construction of a check dam at the head of navigation. Length – about 5 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 - Caretaker - Funds will be used for preliminary engineering and design for future maintenance dredging cycle and for caretaker activities which includes: monitoring conditions of the Federal channel, publishing a Controlling Depth Report, and coordination with local stakeholders..

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: East Chester Creek supports vessels for petroleum and crude material distribution. Per 2014 IWR WCS, total commodities reported was 342,000 short tons including 212,000 tons of petroleum products and 514,000 tons of crude material (sand & gravel, iron & steel scrap).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fire Island to Jones Inlet, NY

AUTHORIZATION: Adopted by the Rivers and Harbors Act of 1958 and subsequently modified by the Rivers and Harbors Acts of 1962.

LOCATION AND DESCRIPTION: Fire Island Inlet is located approximately 40 miles east of The Battery, New York City. This 1.8 mile project provides for a channel 14 feet deep (MLW) and connects the Great South Bay with the Atlantic Ocean.

FISCAL YEAR 2016 ALLOCATION: \$50,000

DESCRIPTIONS OF WORK FOR FY 2016: Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with USCG and local stakeholders.

FISCAL YEAR 2017 ALLOCATION: \$50,000

DESCRIPTIONS OF WORK FOR FY 2017: Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with USCG and local stakeholders.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 - Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with USCG and local stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION:

This is a multi-purpose project combining navigation and beach erosion control, with the placement of sand on the critical erosion shoreline west of the inlet. Project is cost shared with the State of New York.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$43,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Glen Cove Creek, NY

AUTHORIZATION: Rivers and Harbors Act of 1888 (25 Stat. 400)

LOCATION AND DESCRIPTION: A channel 8 feet deep and 100 feet wide extending approx. 1 mile from deep water in Hempstead Harbor to the head of navigation at the City of Glen Cove.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$20,000 T: \$20,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$20,000 - Caretaker – Monitoring conditions, preparation of controlling depth reports, and coordination with natural resource agencies.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS:

OTHER INFORMATION:

This is a shallow draft low use navigation channel.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great Kills Harbor, NY

AUTHORIZATION: Adopted 1927, modified 1938

LOCATION AND DESCRIPTION: A channel, 10 ft. deep, 150 ft wide, from deep water in Lower New York Bay to the entrance of the harbor in the vicinity of the present westerly end of Crooks Island, thence of same depth and width along the west side of the harbor. Length – about 1.9 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

N: \$50,000 - Caretaker - Monitoring, preparation of controlling depth reports, and coordination with natural resource agencies.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Great Kills Harbor is a shallow draft navigation channel on the east side of Staten Island, NY. The project contains a protected anchorage that is a harbor of refuge during severe storms. It was last dredged in 2013/14.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,611,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Great Kills Harbor, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great South Bay, NY

AUTHORIZATION: Rivers and Harbors Act of 1902 and modified by the Rivers and Harbors Act of 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: A channel, 10 ft. deep, 200 ft. wide from Fire Island Inlet to the Central Basin in Great South Bay opposite Patchogue, thence 100 ft. wide to mile 18.9 in the Patchogue River with a turning basin at the upper end at a depth of 11 ft., thence 8 ft. deep to the upstream limit of the project. Length about 19.1 Miles. A stone jetty 1,700 ft. long on the west side of the Patchogue River.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 - Caretaker – Monitoring, preparation of controlling depth reports, and coordination with natural resource agencies

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Ferries bring 30,000 passengers to the National Seashore resulting in \$12-15 million in annual revenue for the Patchogue area. Per IWS WCUS 2014, Boatyards service commercial vessels hauling 3,000 tons of goods, recreational craft, fishing trawlers & party fishing boats. 2014 recorded 44,906 trips by vessels.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Great South Bay, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River Channel, NY

AUTHORIZATION: Rivers and Harbors Acts of 1913 and modified in 1917 and 1937

LOCATION AND DESCRIPTION: A channel 45 ft. deep, suitably widened at bends, from deep water in Upper New York Bay to W. 40th St., Manhattan, and thence 48 ft. deep, 2,000 ft. wide to 59th St. Length – about 6 miles. A channel 40 ft. deep for the full width of the river, extending from deep water in Upper New York Bay off Ellis Island to W. 59th St., Manhattan. Length – about 6 miles. A channel, 30 ft. deep, 750 ft. wide, along the Weehawken-Edgewater waterfront. Length – about 5 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$250,000 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 - Funds will be used for preliminary engineering and design for future maintenance dredging cycle and for caretaker activities which includes: monitoring conditions of the Federal channel, publishing a Controlling Depth Report, and coordination with US Coast Guard and local stakeholders.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Serves the NYC Passenger Ship Terminal, from which 12 cruise lines serve over 887,000 passengers per year (P&O Ports) also key segment in the Hudson River channel to Port of Albany, NY. Cruise industry contributes about \$800 million to NY State economy and in 2004, 3,300 jobs. Aircraft carrier and support vessels periodically use the area. Serves the Intrepid Museum area, which hosts visiting naval vessels from the U.S. and other nations as a National showcase; also key segment in the Hudson River channel to Port of Albany, NY.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (Maintenance)

AUTHORIZATION: House Document (HD) 719 (1910) as modified by HD 350 (1925); HD 210 (1930); Senate Document Number 155 (1935); HD 572 (1930); River and Harbor Act of 1954.

LOCATION AND DESCRIPTION: The project consists of a channel 155 miles in length extending from New York City, New York to its upstream terminus at Waterford, New York. Project provides for maintenance of the 32-foot deep navigation channel extending 145 miles from New York City to Albany; thence 27-foot deep for 1,000 feet; continuing with a 14-foot deep navigation channel extending 10 miles upstream from Albany to the New York State Barge Canal System at Waterford, New York. The project is a high-use, deep-draft project that supports 2.5 billion tons of cargo annually.

FISCAL YEAR 2016 ALLOCATION: \$3,604,000

DESCRIPTIONS OF WORK FOR FY 2016: The funding were used for channel maintenance activities and for channel surveys of most shoals along the river, and reporting to the U.S. Coast Guard and other agencies and stakeholders, to ensure river pilots and vessel operators have updated information and proper buoy placement for safe navigation. Funds were used to dredge the more critical shoaled areas of the Hudson River project channel from Albany to Hudson, NY including the Albany Turning Basin and Staats Point reaches.

FISCAL YEAR 2017 ALLOCATION: \$1,600,000

DESCRIPTIONS OF WORK FOR FY 2017: The funding is being used for channel maintenance activities and for channel surveys of most shoals along the river, and reporting to the U.S. Coast Guard and other agencies and stakeholders, to ensure river pilots and vessel operators have updated information and proper buoy placement for safe navigation. Funds will be used to provide oversight for completing FY 2016-17 maintenance dredging project including Albany Turning Basin and Staats Point reaches. A portion of the funding is also being used to initiate sampling and testing activities so that maintenance dredging of critical shoaled areas of the Hudson River project channel from Coxsackie to Athens, NY may proceed without delays.

BUDGETED AMOUNT FOR FY 2018: M: \$5,500,000 O: \$1,400,000 T: \$6,900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,900,000 – Project Conditions Survey and Engineering & Design for Maintenance Dredging of the Albany to Kingston Reaches. Environmental sampling and testing, prepare plans and specs for maintenance dredging of the Coxsackie to Athens reaches (award FY 2018-19 contract).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The channel is dredged, at different locations, on an annual or bi-annual basis. Shoaling has necessitated the Hudson River Pilots Association to place draft restrictions and to stop deep-draft vessel transits during periods of low tide.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$178,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (O&C)

AUTHORIZATION: House Document 719, 81st Congress, 2nd Session (Jun 1910) and modified by House Document 350, 88th Cong., 1st Session (Mar 1925); House Document 210, 70th Cong., 1st Session (Jul 1930); SD 155, 72nd Cong., 2nd Session (Aug 1935); House Document 572, 75th Cong., 3rd Session (Jun 1930); and PL 780, 83rd Cong., 2nd Session (Sep 1954).

LOCATION AND DESCRIPTION: The Hudson River, New York federal navigation project consists of a channel approximately 155 miles in length extending from New York City, N.Y. to its upstream terminus at Waterford, N.Y. The Hudson River O&C project provides for operation and care of the Troy Lock and Dam located on the Hudson River, Troy, New York approximately 2.5 miles below the upstream limit of the Hudson River Federal Navigation Channel at Waterford, N.Y.

FISCAL YEAR 2016 ALLOCATION: \$5,068,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds used to operate and maintain the navigation lock. Funds used to perform critical contract repairs to the lock miter gates and gate anchorage components.

FISCAL YEAR 2017 ALLOCATION: \$2,600,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to operate the navigation lock at the approved minimum level of service and to perform maintenance essential to meeting operational, safety, environmental and security requirements. \$50,000 in funds are being used to perform structural inspections of the north and south lock cofferdams. Inspection of the cofferdams is necessary before the lock is dewatered in FY 2017. \$300,000 in funds are being used to perform oversight and quality assurance, testing and completion of Troy Lock Miter Gate Replacement contract.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$2,450,000 T: \$2,450,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,450,000 – Funds will be used to operate the navigation lock at the approved minimum level of service and to perform maintenance essential to meeting operational, safety, environmental and security requirements.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project is a low commercial use, shallow draft project that provides the navigation link between the Atlantic Ocean and the economically important (\$376 million annual benefits) New York State Canal System (57 locks, 524 miles of waterways).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$621,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jamaica Bay, NY

AUTHORIZATION: River and Harbor Act of 1910 as modified by the River and Harbor Acts of 1945 and 1950

LOCATION AND DESCRIPTION: Jamaica Bay - Rockaway Inlet Federal navigation channel is located along the south shore of New York City. The entrance channel is the gateway to the Jamaica Bay Wildlife Reserve. The project is a deep-draft navigation channel.

FISCAL YEAR 2016 ALLOCATION: \$203,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to coordinate channel conditions with stakeholders, determine a placement site for beneficial use of the dredged sand, and prepare for the next maintenance dredging for this important project.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$250,000 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 – Preliminary Engineering and Design and Supervision and Administration for upcoming maintenance in a high shoaling inlet.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project supports transportation of construction products and provides for the safe delivery of approximately 700,000 tons of petroleum products. Project supports the sewage sludge transportation from two New York City water pollution control plants and supports commercial sea food harvesting.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$494,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Jamaica Bay, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jones Inlet, NY

AUTHORIZATION: Rivers and Harbor Act of 1945

LOCATION AND DESCRIPTION: An east jetty and a channel 12 ft. deep and 250 ft. wide, from, that depth in the ocean through the inlet to the Loop Causeway Bridge over Long Creek. The length of section included in the project is 2.3 miles.

FISCAL YEAR 2016 ALLOCATION: -\$14,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$420,000 T: \$420,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$420,000 – Preliminary Engineering and Design for upcoming maintenance in a high shoaling inlet.

FRM: N/A

RC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This channel supports USCG Station Jones Beach and is a homeport to 10 commercial fishing vessels, 19 commercially operated charter fishing vessels and 3 marinas. Fish landings total over 2 Million pounds annually. Beach placement is cost-shared with NY St. USCG Station Jones Beach is one of top 25 busiest USCG Search and Rescue stations.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Jones Inlet, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Montauk Harbor, NY

AUTHORIZATION: Rivers and Harbors Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: A channel, 12 ft. deep, at mean low wat and 150 ft. wide, extending from the 12 ft. contour in Block Island Sound to the same depth in the existing yacht basin east of Star Island; a boat basin 10 ft. deep, 400 ft. wide and 900 ft. long, located north west of Star Island; repair and extension shoreward of the east and west jetties; and addition of sport fishing facilities on top of both jetties. Length – about 0.7 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$250,000 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 - Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with US Coast Guard and local stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Very dynamic inlet with extensive fishing fleet and vital US Coast Guard monitoring and rescue station with deep draft cutters.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Long Island Intracoastal Waterway, NY

AUTHORIZATION: River and Harbor Act of 1937

LOCATION AND DESCRIPTION: The project is a 33.6 mile shallow-draft, low-use channel from Great South Bay to the south end of Shinnecock Inlet, Long Island, New York.

FISCAL YEAR 2016 ALLOCATION: -\$319,000

DESCRIPTIONS OF WORK FOR FY 2016: Caretaker status to monitor channel conditions, publish Controlling Depth Reports and coordinate with US Coast Guard and local stakeholders.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$270,000 T: \$270,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$270,000 - Caretaker status to monitor channel conditions, publish Controlling Depth Reports and coordinate with US Coast Guard and local stakeholders.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The 33.6 mile waterway is the primary access between five bays as well as coves, rivers and creeks that lead inland. Three US Coast Guard Stations utilize this waterway for search and rescue missions.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,328,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mattituck Harbor, NY

AUTHORIZATION: Rivers and Harbors Act of 1896 and subsequently modified in 1935 (P.L. 74-738) and 1964.

LOCATION AND DESCRIPTION: The existing federal navigation project provides for a channel, 7 ft deep, from the Long Island Sound to the Village of Mattituck in the Town of Southold, 100 ft wide at the entrance and 80 ft wide thereafter. It is a shallow draft mainly recreational channel.

FISCAL YEAR 2016 ALLOCATION: -\$5,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$20,000 T: \$20,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$20,000 - Funds will be used for the most basic caretaker activities to monitor channel conditions and maintain coordination with stakeholders. Erosion east of the inlet and shoaling to the west of the jetties will be monitored.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Mattituck is a vibrant fishing, boating and recreation site along the Long Island Sound. It is also a Critical Harbor of Refuge. Two jetties are the aids to navigation currently in operation. As a result of past jetty construction, the west jetty fillet fills in rapidly while the down-drift beach is sand-deprived. Monitoring the conditions periodically is the minimal reasonable stewardship for this asset.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Moriches Inlet, NY

AUTHORIZATION: Rivers and Harbors Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: A channel, 10 ft. deep, 200 ft. wide, extending from that depth in the Atlantic Ocean to Moriches Bay Length – about 0.8 mile. A channel, 6 ft. deep, 100 ft. wide, to the Long Island Intracoastal Waterway. Length – about 1.1 miles. Rehabilitation of the existing jetties and revetments, seaward extension of the east jetty to the 12 ft. contour and seaward extension of the west jetty, a distance of 400 ft. Construction of a fixed by-passing facility to transfer sand from the east side of the inlet to west side.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$150,000 T: \$150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$150,000 – Funds will be used for preliminary engineering and design for future maintenance dredging cycle and for caretaker activities which includes: monitoring conditions of the Federal channel, publishing a Controlling Depth Report, and coordination with US Coast Guard and local stakeholders.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Authorized critical Harbor of Refuge and critical US Coast Guard Search and Rescue Station inside the inlet. US Coast Guard receives on average 1000 calls for help on the South Shore of Long Island each year. Moriches is one of 6 coastal inlets providing access to the Atlantic Ocean.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$52,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

Moriches Inlet, NY

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mount Morris Dam, NY

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and Section 5110 of the Water Resources Development Act of 2007 (P.L. 110-114), as amended

LOCATION AND DESCRIPTION: Mount Morris Dam is a dry-bed dam that provides flood damage reduction, recreation, and environmental stewardship for the metropolitan area of Rochester, NY. It also provides flood control for other residential areas, farmlands, and industrial developments in the lower Genesee River Valley. This project includes a visitor center and natural resource management facilities.

FISCAL YEAR 2016 ALLOCATION: \$3,559,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for routine operation and maintenance (O&M) of the dam, visitor center, and environmental stewardship activities.

FISCAL YEAR 2017 ALLOCATION: \$3,575,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding was used for routine O&M of the dam, visitor center, and environmental stewardship activities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,759,000 O: \$2,133,000 T: \$3,892,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,537,000 - Funding will provide for routine O&M activities including dam safety, water control management, and debris removal and to repair emergency access stairwells. .

RC: \$262,000 - Funding will be used for routine O&M of visitor's center and supporting recreation activities.

H: N/A

EN: \$93,000 - Funding will be used for routine O&M of environmental stewardship activities. These include boundary inspection/maintenance, continuation of the Historic Properties Management Plan, wildlife and habitat management and pest management activities.

WS: N/A

OTHER INFORMATION: The Dam serves 161,000 people who reside and work within the Genesee River 100-year flood plain. In 2014 the dam prevented an estimated \$290,000,000 in flood damages. Since its completion in 1952, the dam has prevented an estimated \$2,570,000,000 in flood damages.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$31,000. There was an additional \$17,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York and New Jersey Channels, NY

AUTHORIZATION: River and Harbor Act of 1922; as modified by River and Harbor Acts of 1933, 1935, 1950, 1965 and 1985

LOCATION AND DESCRIPTION: The channel is 37-feet (ft) deep in rock and 35-ft deep in soft material, with widths varying between 500- to 800-feet wide through Lower New York Bay, Raritan Bay and Arthur Kill passing north of Shooters Island and protected by a dike on its northern side to the junction of the channel into Newark Bay. Under the Kill Van Kull Newark Bay Channel, New York and New Jersey authorized for deepening to 45 ft (47 ft in rock) and 800-ft wide from the vicinity of Shooter Island and junction with Newark Bay through the Kill Van Kull to Constable Hook; thence 1,300-ft wide from a point opposite the east end of Constable Hook to a point near the intersection along the New Jersey Pierhead line and thence 3,070-ft wide through Kill Van Kull to Upper New York Bay with suitable easing of the bends and junctions. The length is 31.0 miles, two anchorages are 38-ft deep to accommodate five vessels each, one in the vicinity of Sandy Hook and the other south of Perth Amboy, two secondary channels are 30-ft deep and 400-ft wide with one located south of Shooters Island and the other in Raritan Bay connecting with Raritan River. The project is a deep-draft, high-use navigation channel.

FISCAL YEAR 2016 ALLOCATION: -\$961,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for engineering and design for the next dredging cycle, preparing controlling depth reports and communicating with stakeholders. Failure to implement the project means more vessel calls will be required to handle the cargo volume passing through the Port of NY and NJ; and greater potential navigational safety concerns by not buying down risk as a result of deferred Engineering and Design for next maintenance.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: Carryover funds are being used to maintain coordination with the natural resource agencies and other stakeholders as well as the preparation and communication of controlling depth reports from channel condition surveys.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$400,000 T: \$400,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$400,000 – Engineering and design, including Sampling and Testing for the next maintenance cycle.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: IWR WCUS 2014 reports 109.6 Million tons of products, including petroleum products (74.7 million tons), chemical products, manufactured goods, ore, scrap, food and farm products, were transported through the project. There are over 100 fuel terminals. The Perth Amboy anchorage provides a secure holding site for vessels by the U.S. Coast Guard.

Division: North Atlantic

District: New York New York and New Jersey Channels, NY

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$7,522,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York and New Jersey Harbor, NY & NJ

AUTHORIZATION: Supplemental Appropriations Act of 1985, Water Resources Development Acts of 1986, 1996, 1999, and 2000.

LOCATION AND DESCRIPTION: The Port of New York and New Jersey is located within the bi-state NY/NJ Harbor Estuary. The constructed Federal navigation channels within the NY & NJ Harbor project include: Ambrose Channel; Anchorage Channel; Kill Van Kull (KVK); portions of Newark Bay Channel and Arthur Kill Channel; and Port Jersey Channel. The New York and New Jersey Harbor, NY and NJ, project was constructed to the following depths: Ambrose Channel to 53 feet MLW; the Anchorage Channel, Kill Van Kull, Newark Bay, Port Jersey Channel, and the Arthur Kill Channel to Howland Hook to 50 feet MLW or 52 feet MLW in rock or otherwise hard material.

FISCAL YEAR 2016 ALLOCATION: \$4,565,000

DESCRIPTIONS OF WORK FOR FY 2016: Caretaker status to monitor channel conditions, publish Controlling Depth Reports, estimate incremental volumes of maintenance material, and coordinate with local partners.

FISCAL YEAR 2017 ALLOCATION: \$18,730,000

DESCRIPTIONS OF WORK FOR FY 2017: Maintenance dredging of selective reaches of the 50' improved channels - Arthur Kill, Newark Bay, Port Jersey and/or Kill Van Kull. There are also work packages to perform engineering and design to produce Plans and Specifications for various reaches for out-year maintenance. In addition, funds are provided for dredging contract – Newark, Option Area 1 (\$10,000,000), and to remove contaminated sediments from the Port Newark Waterways for beneficial use at Upland Brown field remediation (\$3,080,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$760,000 T: \$760,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$760,000 – Four Caretaker packages (Ambrose, Anchorage, Kill Van Kull and Port Jersey) to monitor channel conditions, publish Controlling Depth Reports and coordinate with local stakeholders. Complete Plans and Specifications package for the Arthur Kill reach.

FRM: N/A

REC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of NY&NJ is the largest container port on the East Coast and critical to both the national and regional economy, with goods arriving in the Port of NY&NJ distributed to over 100 million people. There is a critical and urgent need for 50 ft channels depths to allow the safe & efficient use of Port by post-Panamax containerships, which dominate container operations worldwide. USCG facility utilizes project channels. The construction phase of the overall \$2.7 billion project is nearing completion. This O&M effort prepares for the future project operation and maintenance dredging of the completed deepened channel elements.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was

Division: North Atlantic

District: New York

New York & New Jersey
Harbor, NY & NJ

\$4,524,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1884, 1910, 1917, 1930, 1935, 1937, 1958, 1965, and 1984

LOCATION AND DESCRIPTION: Project consists of the deep-draft, high-use main Ship Channel that extends from Bayside Channel to deep water in the Lower Bay off West Bank Light and the deep-draft, high-use Sandy Hook Channel. The project includes the maintenance of the main entrance channels and major anchorages in the Port of New York and New Jersey and, in addition, the Historic Area Remediation Site (HARS), a dredged-material placement site approximately 16-square nautical miles in area that is located in the Atlantic Ocean.

FISCAL YEAR 2016 ALLOCATION: \$8,986,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for management and monitoring of the only long-term disposal site available for Federal and private dredging projects in the New York area, as well as technical studies needed for continued use of the site; preliminary Engineering & Design for a future maintenance dredging cycle of the Sandy Hook Channel.

FISCAL YEAR 2017 ALLOCATION: \$5,977,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used for monitoring of the Historic Area Remediation Site (HARS), a dredged-material placement site approximately 16-square nautical miles in area that is located in the Atlantic Ocean. Funding is also for the award of a maintenance dredging contract of the Sandy Hook Channel.

BUDGETED AMOUNT FOR FY 2018: M: \$7,300,000 O: \$443,000 T: \$7,743,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$7,743,000 – Funding will be used for monitoring of the Historic Area Remediation Site (HARS), a dredged-material placement site approximately 16-square nautical miles in area that is located in the Atlantic Ocean.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: New York Harbor contains five interconnected but separate channels and two adjacent anchorages all of which are used by international vessels, harbor pilots and the U.S. Coast Guard and supports 140 million tons of commerce per year. Channels and anchorages are maintained alternating years.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,030,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY & NJ (Drift Removal)

AUTHORIZATION: River and Harbor Act of 1915, modified in 1917 and 1930, expanded in the Water Resources Development Act of 1990

LOCATION AND DESCRIPTION: The New York and New Jersey Harbor-Estuary includes adjacent and tributary waters and Long Island Sound. The project consists of collection and removal of large floating drift that is a threat to deep-draft cargo carriers and petroleum tankers, ferries, cruise ships and recreational vessels and the shoreline and beaches of the harbor-estuary.

FISCAL YEAR 2016 ALLOCATION: \$9,207,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to operate and manage the drift collection mission.

FISCAL YEAR 2017 ALLOCATION: \$9,669,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to operate and manage the drift collection mission. Additional funds are provided to expand drift collection during floatable periods (\$369,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$9,850,000 T: \$9,850,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$9,850,000 - Funds will be used to operate and manage the drift collection mission.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Drift collection vessels are used on a daily basis (one vessel works on each weekend day) to collect large floating debris (drift). Removal of 500,000 cubic feet of drift and floatables results in the avoidance of approximately \$25 million of damages to cargo vessels, tankers, barges, passenger commuter ferries, cruise ships, and recreational vessels. Consistent with the authorization in Water Resources Development Act of 1990, floatables are collected so they do not escape the harbor and pollute the New Jersey and New York bathing beaches.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,056,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY (Prevention of Obstructive Deposits)

AUTHORIZATION: Harbor Supervision Act of 1888 (33 U.S.C. 441-453)

LOCATION AND DESCRIPTION: The New York and New Jersey Harbor-Estuary includes adjacent and tributary waters and Long Island Sound, New York. This continuing maintenance project involves the detection, investigation, and prevention of hazards and obstructions to navigation, including failing piers and bulkheads which are the key source of drift and debris. This project provides for investigating deteriorating structures so that the responsible owner can be found and made to eliminate the hazard, or potential hazard, to safe navigation before it becomes a Federal cost. The U.S. Attorney's Office of the Department of Justice brings cases in Federal Court when needed to have the responsible party correct and remove the hazard.

FISCAL YEAR 2016 ALLOCATION: \$1,035,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to implement inspections, investigations and enforcement actions involving hazards and obstructions to navigation. This reduces overall Federal cost and avoids serious jeopardy to the large volume of commercial and recreational vessel traffic in New York and New Jersey Harbor and its associated channels.

FISCAL YEAR 2017 ALLOCATION: \$1,300,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to implement inspections, investigations and enforcement actions involving hazards and obstructions to navigation. Additional funds are provided to clear backlog of investigations of illegal and unauthorized discharging in Port of New York and New Jersey (\$100,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,300,000 T: \$1,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,300,000 - Funds will be used to implement inspections, investigations and enforcement actions involving hazards and obstructions to navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Approximately 100 new cases per year require investigation and action.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: New York

New York Harbor, NY (Prevention of Obstructive Deposits)

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shinnecock Inlet, NY

AUTHORIZATION: The Shinnecock Inlet - Federal Navigation Project is authorized by the Rivers and Harbors Act of 1960, in accordance with the recommendations contained in House Document No. 126, 86th Congress, 1st Session.

LOCATION AND DESCRIPTION: Shinnecock Inlet is a coastal inlet located on the South Shore of Long Island, in the Town of Southampton, NY. The existing federal navigation project includes an entrance channel, 10 ft deep (MLW) and 200 ft wide and an inner channel 6 ft deep, 100 ft wide connecting to the Long Island Intracoastal Waterway. It also includes a deposition basin 20 feet deep mean low water (MLW), 600 feet wide and 600 feet long and existing jetties and revetments.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$150,000 T: \$150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$150,000 – Engineering and Design for future maintenance dredging cycle.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Second only to Montauk as a NY commercial fishing center with over 10 Million pounds of fish landings per year. Project is also a critical harbor of refuge.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$217,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Southern New York Flood Control Projects, NY

AUTHORIZATION: Flood Control Act of 1936, as amended by the Flood Control Act of 1938

LOCATION AND DESCRIPTION: Project consists of ten local flood protection projects located in New York on tributaries of the North Branch of the Susquehanna River in the cities of Oxford, Avoca, Binghamton, Canisteo, Corning, Elmira, Hornell, Lisle, Whitney Point Village, and Addison.

FISCAL YEAR 2016 ALLOCATION: \$667,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$702,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the flood protection projects.

BUDGETED AMOUNT FOR FY 2018: M: \$268,000 O: \$458,000 T: \$726,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$726,000 - Funding will provide for routine operation and maintenance.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Southern New York Local Flood Protection Projects provide for a variety of Federally-constructed channels, levees, floodwalls, check dams and other drainage structures and flood protection treatments. The Federal Government retains responsibility for maintenance of at least some portions of these projects based on the authorizing language. Local interests are responsible for the remaining maintenance. Operation of the project provides benefit to a population at risk of 100,000. Flood damages prevented are estimated through FY2014 at \$1.7 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$282,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Westchester Creek, NY

AUTHORIZATION: Rivers and Harbors Act of 1922 (P.L. 67-362)

LOCATION AND DESCRIPTION: A channel, 12 ft. deep, 100 ft. wide, for a distance of 2,000 ft. at the entrance, thence 80 ft. wide for a distance of 3,000 ft., and thence 60 ft. wide for a distance of 8,800 ft. to the head of navigation at East Tremont Avenue (Fort Schulyer Road), with widening at bends. Length – about 2.6 miles.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 - Caretaker status to monitor channel conditions, publish a Controlling Depth Report and coordinate with US Coast Guard and local stakeholders.

FRM: N/A

RC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Per IWR WCS 2014, 69,000 tons per year of fuel product traverse this project as distillate fuel oil through an average of 104 vessel trips per year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitney Point Lake, NY

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938

LOCATION AND DESCRIPTION: Whitney Point Lake is near Whitney Point, New York, on the Otselic River, a tributary of the Tioughnioga River that discharges into the Chenango River which in turn discharges into the Susquehanna River at Binghamton, New York. The dam is an earthen-fill structure, with a concrete spillway and a gated outlet. The project forms part of the protection for Binghamton, New York, and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton.

FISCAL YEAR 2016 ALLOCATION: \$1,026,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, coordination with the recreation leasee, natural resources protection and conservation, developing a cultural resources management plan, and initiating a master plan update.

FISCAL YEAR 2017 ALLOCATION: \$879,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation. Additional funds are provided for completion of master plan and NEPA (\$87,000).

BUDGETED AMOUNT FOR FY 2018: M: \$209,000 O: \$751,000 T: \$960,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$783,000 - Funding will provide for routine operation and maintenance.

RC: \$35,000 - Funding will provide for coordination with the recreation leasee.

H: N/A

EN: \$142,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The reservoir has a storage capacity of 86,440 acre-feet and controls a drainage area of 255 square miles, the entire watershed of the Otselic River, and 16-percent of the Chenango River watershed upstream from Binghamton, New York. The project forms part of the protection for Binghamton and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton. Operation of the project protects a population at risk of 300,000. Flood damages prevented through FY2014 are an estimated \$720 million. The Broome County Department of Parks and Recreation operates and maintains Dorchester Park under a real estate agreement.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$242,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NORTH CAROLINA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), NC

AUTHORIZATION: River and Harbor Acts of 1912, 1927, 1930, 1935, 1937, 1938, 1948, 1950, 1954, 1960 (Section 107), 1966 and 1970 and the Water Resources Development Act of 1976.

LOCATION AND DESCRIPTION: This project is located on the east coast of North Carolina and consists of both high and low use inland navigation channels which run from the Commonwealth of Virginia to Little River, South Carolina, a distance of 308 miles. The authorized project provides for a waterway 12 feet deep, with widths varying from 90 feet in land cuts to 300 feet in open waters. The project also includes numerous side channels with varying project dimensions.

FISCAL YEAR 2016 ALLOCATION: \$5,565,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$1,833,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation. In addition, funds are provided for geospatial data into the Corps Map system (\$83,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,213,000 O: \$599,000 T: \$2,812,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,812,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project contributes to the state-wide economic output by at least \$109 million per year, according to a 2007 AIWW Report. The project also supports the following users: U.S. Coast Guard search and rescue operations, U.S. Marine Corps and U.S. Naval riverine training operations, barge traffic supporting intermodal transportation to deep draft ports, military equipment and supply transportation barges and vessels, commercial and recreational vessels, National Oceanic and Atmospheric Administration vessels, and U.S. Army Corps of Engineers vessels. This waterway supports the North Carolina State Ports Authority (bulk-cargo ships) and NUCOR Steel and PCS Phosphate shipments through Morehead City Harbor, North Carolina. This portion of the channel is classified as high use and represents 50 percent of the length of the AIWW within the state of North Carolina.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$288,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: B. Everett Jordan Dam and Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Haw River in central North Carolina, 4.3 miles above its mouth and 2.5 miles north of Moncure, North Carolina. It provides flood risk management, recreation and other purposes to the public. The project includes an earthen dam, 1,330 feet long with a maximum height of 112 feet above the streambed; an uncontrolled, unpaved chute spillway; a controlled 19-foot diameter outlet structure; and saddle dikes just beyond the spillway. The reservoir is operated as part of a coordinated system for flood risk management in the Cape Fear River basin.

FISCAL YEAR 2016 ALLOCATION: \$2,379,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of flood risk management, recreation, water supply, and environmental stewardship. Non-routine flood risk management operations and maintenance activities include completion of an energy audit and repair of control tower components.

FISCAL YEAR 2017 ALLOCATION: \$2,175,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of flood risk management, recreation, water supply, and environmental stewardship. Non-routine activities include preparing a cultural resources plan (\$400,000) and reviewing, updating the yield, and managing the water supply storage agreement (\$56,000).

BUDGETED AMOUNT FOR FY 2018: M: \$822,000 O: \$1,563,000 T: \$2,385,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,534,000 – Funds will be used for routine operations and maintenance in support of flood risk management. Non-routine flood risk management activity will fund necessary gate maintenance.

RC: \$503,000 – Funds will be used for routine operations and maintenance in support of recreation. Non-routine recreation activity will fund Public Safety Student Conservation Association Intern to promote water safety at project (\$18,000). There is a total of \$80,000 for sustainability work on this project for water line efficiency upgrades.

H: N/A

EN: \$337,000 – Funds will be used for routine operations in support of environmental stewardship.

WS: \$11,000 – Funds will be used for routine operations in support of water supply.

OTHER INFORMATION: A non-Federal hydropower generating facility is currently operating at this project. Flood damages reduced during FY 2015 were more than \$2.7 thousand for a cumulative total of \$290 million since the inception of the project in 1983. In FY 2012, the annual visitation to the project was more than 1 million visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$104,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: South Atlantic

District: Wilmington

B. Everett Jordan Dam and Lake, NC

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cape Fear River above Wilmington, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1934, 1935, 1937 and 1965; and Flood Control Act of 1944, Section 4

LOCATION AND DESCRIPTION: The shallow draft navigation project is located in Bladen County in southeastern North Carolina and consists of three Federally-built and maintained locks and dams. The locks and dams were constructed to provide a navigable channel for commercial barges from Wilmington to Fayetteville, NC, a distance of about 111 river miles. This project currently has only minor commercial navigation traffic. The dams also provide "impoundments of convenience" for water intakes for upstream communities and businesses. The grounds at Lock & Dam #2 are being utilized on a quarterly basis by the U.S. Military. The U.S. Navy and the special forces of the U.S. Army utilize the locks and surrounding infrastructure as unique training opportunities.

FISCAL YEAR 2016 ALLOCATION: \$644,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation and recreation. Non-routine navigation maintenance included preparation of plans and specifications for the scour hole repair at Lock and Dam # 2.

FISCAL YEAR 2017 ALLOCATION: \$10,881,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations in support of navigation and recreation, post-hurricane restoration dredging of Cape Fear Locks and Dams, and scour hole repair at Lock and Dam #2.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$462,000 T: \$462,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: \$212,000 – Funds will be used for routine operations in support of recreation.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Locks No. 1 and 2 are currently rated as Dam Safety Action Classification II structures. A fish passage structure was completed in November 2012 at Lock No.1 as an approved mitigation measure for deepening the Wilmington Harbor 96 Act Navigation channel project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$63,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Falls Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Neuse River about 10 miles north of Raleigh, North Carolina and provides flood risk management, water supply, recreation and other purposes to the public. The project includes an earthen dam which is 1,915 feet long with a maximum height of 95 feet above the streambed; an uncontrolled chute spillway 100 feet wide located in the east abutment, and a controlled 17.4-foot diameter outlet structure. This project is operated as part of a coordinated system for flood risk management in the Neuse River basin.

FISCAL YEAR 2016 ALLOCATION: \$1,708,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of flood risk management, environmental stewardship, recreation and water supply. Non-routine recreation maintenance includes a sustainability lighting fixture upgrade.

FISCAL YEAR 2017 ALLOCATION: \$2,000,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of flood risk management, environmental stewardship, recreation and water supply. There is a total of \$150,000 for sustainability work to upgrade the existing services at the Trailrace Park, Dam, and Visitors Assistance Center.

BUDGETED AMOUNT FOR FY 2018: M: \$855,000 O: \$1,639,000 T: \$2,494,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,701,000 – Funds will be used for routine operations and maintenance in support of food risk management. Non-routine flood risk management activities include repair and replacement of piezometers (\$137,000), and refurbish/replace one water control gate (\$545,000).

RC: \$433,000 – Funds will be used for routine operations and maintenance in support of recreation.

H: N/A

EN: \$355,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: \$5,000 – Funds will be used for routine operations in support of water supply.

OTHER INFORMATION: Dam is currently rated as a Dam Safety Action Classification III structure. Flood damages reduced during FY 2014 were more than \$15 million for a cumulative total of \$646 million since the inception of the project in 1983. In FY 2012, the annual visitation to the project was over 1.6 million visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$122,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manteo (Shallowbag) Bay, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1940, 1950, 1960 (Section 107) and 1970.

LOCATION AND DESCRIPTION: The high use shallow draft navigation project is located along the outer banks portion of Dare County, North Carolina, between Oregon Inlet a critical harbor of refuge, Roanoke Island and Albemarle Sound. The project provides for a channel 14-feet deep and 400-feet wide from the Atlantic Ocean through Oregon Inlet with a channel 10-feet deep by 100-feet wide to Albemarle Sound and channels 12-feet deep by 100-feet wide to Pamlico Sound, Wanchese Harbor, and Shallowbag Bay Harbor. Length of all channels within the Manteo (Shallowbag) Bay project is approximately 25 miles.

FISCAL YEAR 2016 ALLOCATION: \$5,205,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$1,876,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$4,290,000 O: \$500,000 T: \$4,790,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,790,000 – Funds will be used for minimal operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Council on Environmental Quality (CEQ), the National Oceanic and Atmospheric Administration (NOAA), and the Corps agreed in May 2003 that the proposed jetties on the Oregon Inlet portion of the project would not be constructed and that the channels would be maintained by dredging alone, along with extensive hydrographic surveys providing up-to-date navigation information. Maintenance dredging is essential to support the large commercial fishing fleet (more than \$12 million of seafood) traversing to and from Wanchese, NC and approximately 600,000 charter and recreational fishing passenger trips. The U.S. Coast Guard utilizes this portion of the project to access the Oregon Inlet Coast Guard Station in support of search and rescue (over 1,200 missions through Oregon Inlet since 2001) and homeland security. This project provides access to designated harbors of refuge, which is essential during adverse weather conditions since the nearest coastal inlets are Ocracoke Inlet 90 miles to the south and Norfolk, VA, 65 miles to the north.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$148,000. There was an additional \$36,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

Division: South Atlantic

District: Wilmington

Manteo (Shallowbag) Bay, NC

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Masonboro Inlet and Connecting Channels, NC

AUTHORIZATION: River and Harbor Acts of 1912, 1927, 1930, 1935, 1937, 1938, 1948, 1950, 1954, 1960 (Section 107), 1966 and 1970; and Section 111 of River and Harbor Act of 1968

LOCATION AND DESCRIPTION: The inland, low use navigation project is located on the southeastern coast of North Carolina in New Hanover County. The authorized project consists of a 14 feet deep by 400 feet wide channel across the ocean bar at Masonboro Inlet, with north and south jetties at the entrance, transitioning to 12 feet deep and 90 feet wide to the Atlantic Intracoastal Waterway at Wrightsville Beach by way of Banks and Motte Channels; a turning basin, 15 feet deep, 300 feet wide, and 700 feet long on the east side of Banks Channel near Masonboro Inlet; and three 15-pile moorings.

FISCAL YEAR 2016 ALLOCATION: \$49,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$2,300,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used for routine operations in support of navigation, plans and specifications (\$61,000) and contract award (\$2,213,000) for the periodic beach renourishment.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: commercial fishing vessels, recreational vessels and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions. This inlet is a critical harbor of refuge providing access during severely adverse weather conditions as it is the only jettied inlet in NC.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$66,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: South Atlantic

District: Wilmington

Masonboro Inlet and Connecting
Channels, NC

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morehead City Harbor, NC

AUTHORIZATION: River and Harbor Acts of 1958 and 1970; Section 101 of the Water Resources Development Act of 1992

LOCATION AND DESCRIPTION: The Morehead City Harbor project consists of approximately 5 miles of channels, which extend from the deep water in the Atlantic Ocean to the North Carolina State Port at Morehead City, in Carteret County, midway along the North Carolina coastline approximately 10 miles northwest of Cape Lookout. The moderate use deep draft navigation project consists of a 47-foot deep by 450-foot wide entrance channel from the deep water in the Atlantic Ocean to the Beaufort Inlet Gorge; a channel 45-foot deep by 400-to-600-foot wide from the gorge of Beaufort Inlet to the east facing berthing facilities of the North Carolina state ports; and a channel and basin 35 feet deep with varying widths to the south and west facing berthing facilities.

FISCAL YEAR 2016: \$13,698,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$5,950,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$4,970,000 O: \$600,000 T: \$5,570,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,570,000 – Funds are being used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Morehead City Harbor is a deep draft navigation project with 3.5 million commercial tonnage valued at \$925 million annually. This project is a designated strategic fast-strike military port for launching forces and transporting equipment and munitions. The port provides military support for both the Camp LeJeune (Marine Corps) and the U.S. Coast Guard vessels which access the Coast Guard base at Ft. Macon. This port supports the North Carolina State Ports Authority (bulk-cargo ships) and NUCOR Steel and PCS Phosphate through connecting channels of the Atlantic Intracoastal Waterway.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$292,000. There was an additional \$84,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New River Inlet, NC

AUTHORIZATION: River and Harbor Acts of 1935, 1938 and 1948.

LOCATION AND DESCRIPTION: The project is located in Onslow County adjacent to the Camp Lejeune Marine Corps Base. The project provides a channel 6-foot deep by 90-feet wide from the deep water of the Atlantic Ocean, through the inlet gorge, to the intersection of the Atlantic Intracoastal Waterway (AIWW) and a channel 12-foot deep by 90-feet wide from the intersection of the AIWW, extending north within the banks of the New River, and terminating just south of Hwy 24 in Jacksonville, North Carolina.

FISCAL YEAR 2016 ALLOCATION: \$500,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$220,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used to perform routine maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$250,000 O: \$0 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000- Funds will be used for routine maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project is a critical harbor of refuge and provides support to the military at Camp LeJeune (Marine Corps) for their access through New River Inlet to the Atlantic Ocean. Approximately 60 commercial fishing vessels utilize the inlet and connecting channel project for access to harbors of refuge along the North Carolina coast. The project users include: commercial fishing vessels; recreational vessels; U.S. Army Corps of Engineers dredging vessels; U.S. Coast Guard search and rescue operations; charter fishing vessels and the Marine Corps.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rollinson Channel, NC

AUTHORIZATION: River and Harbor Act of 1935

LOCATION AND DESCRIPTION: The Rollinson Channel project is located in Dare County just inside Hatteras Inlet, North Carolina. The high use shallow draft navigation project provides a 12-foot channel from Pamlico Sound to Hatteras Island and a 10-foot deep channel from Hatteras Island to Hatteras Inlet, both with 100-foot channel widths. This project is used by the North Carolina State Ferry System for ferry transportation to Ocracoke Island, which includes a subsistence harbor with no land-based connection.

FISCAL YEAR 2016 ALLOCATION: \$1,297,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$2,265,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used for routine maintenance in support of navigation and to perform maintenance dredging of the Ocracoke Island Ferry sending terminal (\$1,500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,000,000 O: \$0 T: \$1,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,000,000 – Funds will be used for minimal maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Ocracoke Island relies on ferry transportation for subsistence supplies. This project supports the following users: North Carolina State Ferry System, commercial fishing vessels and recreational vessels; and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$394,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Silver Lake Harbor, NC

AUTHORIZATION: Rivers and Harbor Act of 1930

LOCATION AND DESCRIPTION: The Silver Lake Harbor project is located in Hyde County just inside of Ocracoke Inlet, North Carolina. The high use, shallow draft navigation project provides a 12-foot channel from deep water in Pamlico Sound to, and including, an anchorage basin of the same depth in Silver Lake Harbor at Ocracoke, with widths of 150 feet across the Big Foot Slough bar and 60 feet in the entrance channel. Silver Lake Harbor is classified as a subsistence harbor, where supplies and personnel can only be delivered to the island via ferry.

FISCAL YEAR 2016 ALLOCATION: \$1,497,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$580,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used for routine maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$200,000 O: \$300,000 T: \$500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$500,000 – Funds are being used for critical operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: North Carolina Ferry System, commercial fishing and recreational vessels, and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$329,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: W. Kerr Scott Dam and Reservoir, NC

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located on the Yadkin River about 6 miles upstream from Wilkesboro, North Carolina and provides flood risk management, recreation, fish and wildlife conservation, water supply and other benefits to the public. The project includes a rolled earth-fill dam over 1,700 feet long with a maximum height of 148 feet above the streambed and a controlled 12.3-foot diameter outlet structure. An emergency spillway is located near the north abutment of the dam in a rock cut.

FISCAL YEAR 2016 ALLOCATION: \$3,325,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of flood risk management, recreation, environmental stewardship, and water supply.

FISCAL YEAR 2017 ALLOCATION: \$3,376,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of flood risk management, recreation, environmental stewardship, and water supply. Non-routine maintenance includes implementation of IRRM measures. There is a total of \$192,000 for sustainability work on this project to include update of sewer stations in campground and install reflective cool metal roofs for energy saving measures and water efficiency updates.

BUDGETED AMOUNT FOR FY 2018: M: \$375,000 O: \$2,988,000 T: \$3,363,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,260,000- Funds will be used for routine operations and maintenance in support of flood risk management.

RC: \$1,837,000 – Funds will be used for routine operations and maintenance in support of recreation. There is a total of \$115,000 for sustainability work on the project to upgrade the HVAC system and windows.

H: N/A

EN: \$261,000 – Funds will be used for routine operations and maintenance in support of environmental stewardship.

WS: \$5,000 – Funds will be used for routine operations in support of water supply.

OTHER INFORMATION: A non-Federal hydropower structure add-on license has been issued and the Corps is working with the licensee on reviewing a revised preliminary plan. Wilkes County, one of the primary water supply customers, is continuing to pursue construction of a reservoir intake structure. An environmental assessment was completed with a finding of no significant impact. A real estate easement has been issued and Wilkes County continues to move forward to construction. Flood damages reduced during FY 2015 were \$654,000 for a cumulative total of \$220.5 million since the inception of the project in 1962. In FY 2012, the annual visitation to the project was over 656 thousand visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$90,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, NC

AUTHORIZATION: River and Harbor Acts of 1930, 1945, 1950, 1962, and 1964; Section 107 of the River and Harbor Act of 1960; and Water Resources Development Act of 1986 and 1996

LOCATION AND DESCRIPTION: The high use deep draft navigation project is located on the southeastern coast of North Carolina in Brunswick and New Hanover counties and provides for a channel 44 feet deep through the Ocean Bar and 42 feet deep to 800 feet south of the Cape Fear Memorial Bridge in downtown Wilmington. Upstream of this point, the project is 38 feet deep to the Highway 133 bridge; 32 feet deep to the Hilton Railroad Bridge over the Northeast Cape Fear River; and 25 feet deep from the Hilton Railroad Bridge to a point 1-2/3 miles above. The project also includes a northwestward connecting channel, 12 feet deep, from the Atlantic Intracoastal Waterway at Snow's Cut to the main river channel.

FISCAL YEAR 2016 ALLOCATION: \$14,919,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$14,400,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$13,964,000 O: \$775,000 T: \$14,739,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$14,739,000 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Waterborne commerce on the existing Wilmington Harbor project was 5.9 million tons in 2014 and 298,000 TEUs in 2015. This tonnage does not include the tonnage moved in and out of the Military Ocean Terminal – Sunny Point (MOTSU). Project users include the Transportation Command, MOTSU; North Carolina State Ports Authority (NCSPA); multiple tanker terminals; and the U.S. Coast Guard Cutter, DILIGENCE. In addition, NCSPA broke ground in June 2015 on a new 101,000 square-foot cold storage facility with potential import commodities such as fruits, vegetables and seafood. The facility was completed and put into operation in August 2016.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$31,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

NORTH DAKOTA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bowman Haley Lake, ND

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Located twelve miles southeast of Bowman, North Dakota. Bowman-Haley Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation, as well as municipal and industrial water supply. Construction of the dam began in June 1964 and was completed in 1966. The dam measures approximately 5,730 feet in length, with a maximum height of 79 feet from the stream bed to the top of the dam. Bowman-Haley Lake formed at the confluence of Spring Creek, Alkali Creek, and North Fork Grand River; has 17 miles of shoreline and an average depth of 39 feet.

FISCAL YEAR 2016 ALLOCATION: \$219,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the dam and other associated facilities.

FISCAL YEAR 2017 ALLOCATION: \$195,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$50,000 O: \$199,000 T: \$249,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$198,000 - Funding provides for routine operation and maintenance for flood risk management. Non-routine activities include \$50,000 for automation of dam safety instrumentation.

RC: \$6,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$37,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: \$8,000 – Funding provides for management of water supply agreements.

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 totals \$25 million. The project encompasses 6,720 land acres, 1,764 water acres with 17 miles of shoreline, and has a total reservoir storage capacity of 91,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 51,290 visits per year, generates approximately \$1.7 million in revenue, and sustains 17 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Garrison Dam, Lake Sakakawea, ND

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: The Garrison Project is located 75 miles upstream from Bismarck, North Dakota. Garrison Dam construction began in 1947 and was completed in 1953. The dam measure 13,200 feet long and has a maximum height of 210 feet. Lake Sakakawea is 178 miles long with approximately 1,300 miles of shoreline and a maximum depth of 180 feet. The water at Garrison Dam provides benefits of flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$14,540,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Significant non-routine work performed includes repair the penstock gallery roof, replace interior and exterior lighting and a major maintenance report for rehabilitation of the spillway approach channel.

FISCAL YEAR 2017 ALLOCATION: \$ 15,053,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. In addition non-routine funds will be used to Non-routine activities include major maintenance report on rehabilitation of the spillway approach channel and installation of dam safety instrumentation on the Snake Creek north abutment. Additional funds are provided for affiliated land transfer phase 1 and 2 (\$140,000).

BUDGETED AMOUNT FOR FY 2018: M: \$5,426,000 O: \$14,512,000 T: \$19,938,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,356,000 - Funding provides for routine operation and maintenance for flood risk management. Non-routine activities include abandon and replace 23 plugged piezometers and install 9 new piezometers on the Williston Levee (\$ 363,000), rehabilitate the remaining 89 piezometers and replace 14 piezometers on the Williston Levee (\$ 323,000), rehabilitate pumps at the Williston Levee pump plant (\$1,150,000), and rehabilitate Williston Levee Crest and Toe Road (\$2,000,000).

RC: \$853,000 - Funding provides for routine operation and maintenance for recreation.

H: \$5,675,000 – Funding provides for routine operation and maintenance for hydropower. Non-routine activities include repairing power plant generator room precast roof panels (\$256,000).

EN: \$2,876,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include land use and outgrant management for stewardship (\$55,000).

WS: \$167,000 – Funding providesfor management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$6,011,000 for project features jointly used by multiple business lines: HYD - 43.78%, NAV - 23.73%, and FRM - 32.49. %. Non-routine activities on jointly used features include rehabilitation of the intake structure crane (\$1,000,000).

Division: Northwestern

District: Omaha

Garrison Dam, Lake Sakakawea, ND

Cumulative flood damages prevented, from the beginning to FY 2015, \$17.4 billion. Plant installed generation capacity of 583 megawatts, produced \$71.7 million in power production in FY 2015. The project encompasses 462,500 land acres, 376,520 water acres with 1,881 miles of shoreline, and has a total reservoir storage capacity of 23,451,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 214,000 visits per year, generates approximately \$62.6 million in revenue, and sustains 648 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,984,000. There was an additional \$34,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Homme Lake, ND

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The Homme Lake dam is on the South Branch of Park River about 4 miles upstream from Park River, North Dakota and 62.1 miles above the mouth of Park River. South, Middle, and North Branches are headwater streams of Park River and rise in Cavalier County in northeastern North Dakota and flow easterly to an almost common confluence near Grafton, North Dakota.

FISCAL YEAR 2016 ALLOCATION: \$281,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$285,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities and to perform habitat restoration efforts.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$338,000 T: \$338,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$319,000 – Funds are being used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: N/A

H: N/A

EN: \$19,000 – Funds are being used for routine operation and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: Homme Lake was authorized and constructed for water supply and flood control. It provides backup water supply for the communities of Park River and Grafton, ND. The project also provides flood risk reduction benefits to downstream areas and has prevented approximately \$2.3 million in damages since construction.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Ashtabula and Baldhill Dam, ND

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Baldhill Dam is on the Sheyenne River, 16 miles upstream from Valley City, ND, and about 271 miles above the mouth. The Sheyenne River begins in central North Dakota and flows 500 miles generally southeast to enter the Red River of the North about 10 miles north of Fargo, North Dakota. Baldhill Dam was constructed to reduce flood damages, primarily at Valley City, and to alleviate water shortages in municipal and rural areas along the Sheyenne River and the Red River of the North. Placed into operation in 1950, the dam is a 1,650 foot long compacted earth structure with concrete gravity control works 140 feet in length. The reservoir, Lake Ashtabula, has a capacity of 68,600 acre feet at normal pool level.

FISCAL YEAR 2016 ALLOCATION: \$1,518,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$1,510,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities. Non-routine activities include habitat improvement in the wildlife management areas and survey and rectification of the government boundary line.

BUDGETED AMOUNT FOR FY 2018: M: \$149,000 O: \$1,598,000 T: \$1,747,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,101,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: \$305,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$341,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship, and to conduct shoreline erosion survey.

WS: N/A

OTHER INFORMATION: The project provides limited protection from floods downstream from the dam. It also provides sufficient water flow during dry periods to meet water supply needs of municipalities and rural areas along the Sheyenne River and the Red River downstream from the mouth of the Sheyenne River. The project has prevented over \$445,000,000 in damages through operations of the dam since construction, and the water supply benefits are critical to the downstream municipalities. Lake Ashtabula is recognized by local, state and Federal partners as a major natural resource asset in the State of North Dakota.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$24,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Mississippi Valley

District: St. Paul

Lake Ashtabula and
Baldhill Dam, ND

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pipestem Lake, ND

AUTHORIZATION: Rivers and Harbors Act of 1962 (PL 87-874)

LOCATION AND DESCRIPTION: Located four miles north of Jamestown, North Dakota, off highway 52/281. Pipestem Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation. Construction of the dam began in June 1971, and was completed in 1973. The dam measures approximately 4,000 feet in length, with a maximum height of 107.5 feet from the stream bed to the top of the dam. Pipestem Lake is 5.5 miles long and has a maximum depth of 30 feet under normal operation. The lake drains an approximate 594 square mile area, and has a multipurpose storage capacity of 8,944 acre-feet.

FISCAL YEAR 2016 ALLOCATION: \$478,000

DISCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other associated facilities.

FISCAL YEAR 2017 ALLOCATION: \$597,000

DISCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities. Non-routine work include \$60,000 to assess project security risks.

BUDGETED AMOUNT FOR FY 2018: M: \$2,000 O: \$714,000 T: \$716,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018

N: N/A

FRM: \$548,000 - Funding provides for routine operation and maintenance for flood risk management. Non-routine activities include \$105,000 to improve accessibility to the right abutment coulee for dam safety monitoring.

RC: \$27,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$141,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2014 totals \$151.3 million. The project encompasses 4,196 land acres, 840 water acres with 15 miles of shoreline, and has a total reservoir storage capacity of 143,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 78,000 visits per year, generates approximately \$2.8 million in revenue, and sustains 25 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$35,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Souris River, ND

AUTHORIZATION: Water Resources Development Act of 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The project is located in Ward, Renville, McHenry, and Bottineau Counties in northwestern North Dakota. The project consists of eight water control structures and several mitigation features all located within the Upper Souris and J. Clark Salyer National Wildlife Refuges.

FISCAL YEAR 2016 ALLOCATION: \$378,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$357,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,259,000 O: \$325,000 T: \$1,584,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,584,000 – Funds will be used for routine operation activities for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Understanding (MOU) between the Department of the Interior (Fish and Wildlife Service) and the Department of the Army was executed in 1989 establishing procedures, administration, cooperation and coordination between respective agencies for construction, operation and maintenance, rehabilitation and replacement for project flood control and mitigation features. This MOU in conjunction with International Agreements with Canada commits the Corps to several water management, water quality, cyclical and major maintenance responsibilities. Lake Darling Dam which is part of the Souris River Projects complex, located on the Souris River near Minot, ND, has prevented approximately \$145 million in damages since construction.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

OHIO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alum Creek Lake, OH

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Alum Creek Lake is located in Delaware County, OH on Alum Creek of the Big Walnut Creek, a tributary of the Scioto River. It is 26 miles above the mouth of Alum Creek and 157 miles above the mouth of the Scioto River. The project includes Alum Creek Lake, which is impounded by a rolled earth fill dam with a gated concrete spillway. The crest length of the dam is 10,200 feet. The dam was completed in August of 1974.

FISCAL YEAR 2016 ALLOCATION: \$1,698,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,553,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$451,000 O: \$1,141,000 T: \$1,592,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,139,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate outgrant management. Funds will be used to purchase an electric mule.

RC: \$298,000 – Funds will provide for routine O&M for recreational activities.

H: N/A

EN: \$45,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: \$110,000 – Funds will provide for routine O&M for water supply to provide an estimated 35 million gallons per day to approximately 100,000 citizens in the Columbus, OH metropolitan area.

OTHER INFORMATION: The project has prevented over \$178,406,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 3,252,000 and average annual visitation from 2008 to 2012 exceeded 3,249,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within in the Corps for scheduled ongoing requirements in FY2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Berlin Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Berlin Lake Dam is located on the Mahoning River in Mahoning and Portage Counties, OH, about 10 miles upstream from Milton Dam (Non-Federal Project) and about 35 miles upstream from Warren. The lake is located in Mahoning, Portage, and Stark Counties, OH. Berlin Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,706,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds will be used for sustainability work to include HVAC and Lighting Energy Conservation Measures.

FISCAL YEAR 2017 ALLOCATION: \$2,681,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGET FOR FY 2018: M: \$681,000 O: \$2,412,000 T: \$ 3,093,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,859,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$668,000 – Funding provided for routine Operation and Maintenance for recreation

H: N/A

EN: \$558,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: \$8,000 – Funds will provide for the management of the water supply contract and related issues.

OTHER INFORMATION: Berlin Lake has prevented more than \$1,887,774,000 in damages since its completion in 1943. Additionally, the lake has historically served as a water supply for the Mahoning Valley Sanitary District. The estimated revenue from the water supply contract is between \$25,000 and \$50,000. The average annual recreational visits from 2009 through 2013 was 622,726.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$488,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caesar Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Caesar Creek Lake is located in Warren, Clinton, and Greene Counties in Ohio. The dam is earthen- and rock-fill with four saddle dams, outlet works, and spillway. The dam is 165 feet high and 2,650 feet long. It is the site of a class "A" visitor center and is world renowned for its 450 million year old Ordovician fossil beds exposed by the project's emergency spillway. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$2,015,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding provided for replacement Piezometer. All other project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$2,061,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds provided for replacement of the HVAC at the Area Office. All other project work completed, by business line, during FY 2017 will be routine operations and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$825,000 O: \$1,490,000 T: \$2,315,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,943,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Critical dam safety programs and activities are also supported with these funds. There is a total of \$250,000 for sustainability work on this project to include an energy efficient HVAC system.

RC: \$241,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$123,000 – Funding provides for performance of routine environmental stewardship activities, including natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$8,000 – Funding provides for performance of routine activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: In FY 2015 the project prevented over \$8,021,000 in flood damages and total \$312,801,000 since 1977. FY 2012 recreation visits were 1,002,658 and FY 2012 visitor expenditures were estimated at \$20,015,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0 There was an additional \$48,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Louisville

Caesar Creek Lake, OH

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clarence J. Brown Dam & Reservoir, OH

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Clarence J. Brown Dam & Reservoir is located in the northeastern corner of Clark County near Springfield, OH. The project is on Buck Creek, about 7 miles above the confluence with the Mad River, a tributary of the Great Miami River. The 72-foot high and 6,620-foot long dam is earthen-fill with gated controlled outlet works and uncontrolled open spillway. The site also has a Project visitor's center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,239,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed during FY 2016 for all business lines was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,232,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work completed during FY 2017 for all business lines will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$380,000 O: \$944,000 T: \$1,324,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,109,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Critical dam safety programs and activities are also supported with these funds.

RC: \$111,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$104,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY 2015 flood damages prevented were estimated at \$338,000 and total \$14,520,000 since 1973. FY 2012 recreation visits were 1,108,044 and FY 2012 visitor expenditures were estimated to be \$21,840,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$50,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cleveland Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1875 (18 Stat 456), 1888 (25 Stat 400), 1903 (P.L. 57-154), 1910 (P.L. 60-317), 1917 (P.L. 64-108), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1958 (P.L. 85-500), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). Flood Control Acts of 1937 (P.L. 75-406), 1946 (P.L. 79-526) and 1962 (P.L. 87-874). WRDA 1976 (P.L. 94-587) and 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Cleveland Harbor is a moderate-use, deep-draft commercial harbor located on Lake Erie in the city of Cleveland, OH. It is maintained at depths of 28 feet in the outer harbor and 23 feet in 6.8 miles of the Cuyahoga and Old Rivers. The project also has more than 5.5 miles of protective breakwater structures.

FISCAL YEAR 2016 ALLOCATION: \$5,881,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) for navigation including maintenance of the channels, protective structures, confined disposal facilities (CDFs), planning for management and acquisition of dredged material disposal, and regional economic data collection.

FISCAL YEAR 2017 ALLOCATION: \$7,655,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M for navigation including maintenance of the channels, protective structures, CDFs, planning for management and acquisition of dredged material disposal, and regional economic data collection. Dredging, expected to be performed using Government contract, will remove approximately 225,000 cubic yards of sediment at an estimated cost of \$2,800,000. Approximately 200 linear feet of the severely deteriorated West Breakwater will be repaired by in-house resources at a cost of \$1,090,000. Additional funds will be used for maintenance dredging (\$1,800,000).

BUDGETED AMOUNT FOR FY 2018: M: \$4,600,000 O: \$1,600,000 T: \$6,200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,200,000 - Funding provides for routine O&M for navigation including maintenance of the channels, protective structures, and regional economic data collection. Dredging, expected to be performed using Government contract, will remove approximately 225,000 cubic yards of sediment at an estimated cost of \$3,300,000. Pilot project P3/P4 funding is included for \$200,000 to determine suitability for beneficial reuse. Approximately 200 linear feet of the severely deteriorated West Breakwater will be repaired by in-house resources at a cost of \$1,300,000. In addition, funds are provided for the dredged material management plan and environmental impact statement (\$350,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Cleveland is the 48th leading U.S. port with 11,454,092 tons of material shipped or received in 2013 and is ranked 6th among the Great Lakes ports. The USACE existing CDF has capacity for material that has not been determined suitable for open lake placement. The 2013 and 2015 evaluations of sediment quality indicated most of the dredged sediment is suitable for placement in the open lake and no longer requires confinement in a CDF. An operational placement site nine miles offshore in the open-lake was proposed in the 2014 through 2017 applications to the state for a water quality certification. To date, open lake placement of dredged sediment has not received certification by the state. Major stakeholders include the U.S. Coast Guard, Cleveland Cuyahoga County Port Authority, Burke Lakefront Airport, ArcelorMittal, Lake Carriers' Association, and Cargill. Bulk commodities that pass through Cleveland Harbor generate approximately \$1.7 billion annually in direct revenue.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,956,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conneaut Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1917 (P.L. 64-108), 1935 (P.L. 74-409), and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Conneaut Harbor is a moderate-use, deep-draft commercial harbor, located on Lake Erie in the City of Conneaut, Ashtabula County, OH. It is authorized at depths of 22 to 28 feet in the outer harbor and 27 feet in the inner harbor.

FISCAL YEAR 2016 ALLOCATION: \$2,638,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for critical maintenance of coastal navigation structures, obstruction removal and maintenance dredging. Repair includes approximately 120 linear feet on the East Breakwater and removal of debris accumulated within the harbor. Dredging will remove approximately 130,000 cubic yards of sediment, improving the availability and reliability of the navigation channels. Funds will improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays, transportation costs and potential damage to shoreline structures. Funding also included for the Engineering and Design of the East Breakwater End Section Repair.

FISCAL YEAR 2017 ALLOCATION: \$3,000,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds will be used for the repair of east breakwater end section.

BUDGETED AMOUNT FOR FY 2018: M: \$2,800,000 **O:** \$0 **T:** \$2,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,800,000 - Funding will be used for critical maintenance of coastal navigation structures, obstruction removal and maintenance dredging. Repair includes approximately 150 linear feet on the East Breakwater and removal of debris accumulated within the harbor. Dredging will remove approximately 150,000 cubic yards of sediment, improving the availability and reliability of the navigation channels. Funds will improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays, transportation costs and potential damage to shoreline structures.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Conneaut Harbor is the 80th leading U.S. port with 4,100,000 tons of material shipped or received in 2015 and is ranked 14th among the Great Lakes ports. The project provides deep draft navigation. The bulk commodities that pass through Conneaut Harbor generate approximately \$150,000,000 annually in direct revenue. The commodities shipped include coal, iron ore, limestone, and lime. Major stakeholders include U.S. Steel, Conneaut Port Authority, the U.S. Coast Guard, and the Pittsburgh and Conneaut Dock Company.

1/ Unobligated "Carry-in" Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$109,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Deer Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Deer Creek Lake is located in Pickaway County, Ohio, on Deer Creek which is a tributary of the Scioto River. The project site is 21 miles above the mouth of Deer Creek and 105.8 miles above the mouth of the Scioto River. The lake is approximately seven miles south-southwest of the town of Mount Sterling. The project includes operation and maintenance (O&M) of Deer Creek Lake, which is impounded by a rolled earth-fill dam. There is also a concrete gravity channel section that has a maximum height of 93 feet and a total crest length of 3,800 feet. The dam was completed in 1968.

FISCAL YEAR 2016 ALLOCATION: \$1,416,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,451,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,135,000 O: \$1,096,000 T: \$2,231,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,991,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management. Funds will provide a maintenance package to repair the Tainter Gate Platforms at the project.

RC: \$205,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$35,000 – Funds will provide for routine O&M for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project has prevented over \$105,239,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 3,244,000 and average annual visitation for 2008 to 2012 exceeded 3,548,000.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Delaware Lake is located in central Ohio, situated along U.S. Route 23 and within Delaware, Marion, and Morrow Counties. Delaware Lake is located on the Olentangy River, a tributary of the Scioto River, 32 miles above the mouth of the Olentangy River, 164.4 miles above the mouth of the Scioto River, and 3 miles above Delaware city limits. The project includes operation and maintenance (O&M) of Delaware Lake. The project was completed in July of 1948 and consists of an 18,600-foot long and 92-foot high embankment dam with a gated control concrete gravity spillway. It includes a 6,500-foot long embankment levee with two pump station works to protect the Village of Waldo and vicinity, located 9 miles upstream from the dam. The outlet works consist of five gated tunnels which discharge into a concrete stilling basin. The spillway consists of six tainter gates and hoist machinery that operates to release excess water to prevent overtopping and dam failure.

FISCAL YEAR 2016 ALLOCATION: \$1,755,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, conducting an emergency exercise, rehabilitating the intake structure roof, and purchasing an electric mule.

FISCAL YEAR 2017 ALLOCATION: \$1,508,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$471,000 O: \$1,064,000 T: \$1,535,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,253,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$242,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$40,000 will provide for routine operation and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: The project has prevented over \$176,086,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 873,000 and average annual visitation from 2008 to 2012 exceeded 844,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$18,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Great Lakes and Ohio River

District: Huntington

Delaware Lake, OH

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dillon Lake, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of FCA 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: Dillon Lake is located in Muskingum County, OH on the Licking River, a tributary of the Muskingum River. It is 5.8 miles above the mouth of the Licking River and 83.4 miles above the mouth of the Muskingum River. The project includes operation and maintenance (O&M) of Dillon Lake. The lake is impounded by a rolled earth-fill dam with impervious core and an uncontrolled partially concrete lined spillway. The top length of the dam is 1,400 feet. The dam was completed in July of 1959.

FISCAL YEAR 2016 ALLOCATION: \$1,320,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,519,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$509,000 O: \$980,000 T: \$1,489,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,230,000 – Funds will provide for routine O&M for flood risk management. Routine activities include a bridge inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management

RC: \$190,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$69,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The project has prevented over \$264,306,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 1,324,000 and average annual visitation from 2008 to 2012 exceeded 1,291,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fairport Harbor, OH

AUTHORIZATION: River & Harbor Acts of 1825, 1896 (P.L. 20-202), 1905 (P.L. 33-1117), 1919 (P.L. 40-1275), 1927, 1930 (P.L. 46-918), 1935 (P.L. 74-409), 1937 and 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Fairport Harbor is a moderate-use, deep-draft commercial harbor located on Lake Erie in the city of Fairport, Lake County, OH. The harbor's authorized depths are 25 feet in the outer harbor and 21 to 24 feet in the river.

FISCAL YEAR 2016 ALLOCATION: \$1,388,000

DESCRIPTION OF WORK FOR FY 2016: Funding was used to complete sediment sampling and the engineering and Design of the East Breakwater, to include completion of inspection and preliminary design report. Funding was also used for routine maintenance dredging for navigation. Dredging, expected to be performed using Government contract, will remove approximately 120,000 cubic yards of sediment at an estimated cost of \$1,200,000.

FISCAL YEAR 2017 ALLOCATION: \$1,700,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will be used for routine maintenance dredging of 120,000 CY of sediment that has accumulated in the harbor.

BUDGETED AMOUNT FOR FY 2018: M: \$1,150,000 O: \$0 T: \$1,150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,150,000 - Work will consist of placement of approximately 3,000 tons of armor stone over a 100 ft. length of the harbor side of the structure.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Fairport Harbor is the 125th leading U.S. port with 1.6 million tons of material shipped or received in 2015 and is ranked 22nd among the Great Lakes ports. Major stakeholders include the Fairport Harbor Port Authority, U.S. Coast Guard, Carmuse Lime, Morton International, Northeastern Road Improvement Company, Osborne Concrete & Stone, Sidley Stone Products, and private marinas,. Bulk commodities that pass through Fairport Harbor generate approximately \$85,000,000 annually in direct revenue.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,195,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Massillon Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Massillon Local Protection Project is located in Stark County, OH on the Tuscarawas River. Maintenance of the levee is a joint responsibility of the City of Massillon and the U.S. Army Corps of Engineers. Annual mowing and dam inspections are required.

FISCAL YEAR 2016 ALLOCATION: \$65,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$86,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$10,000 O: \$79,000 T: \$89,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$89,000 – Funds will provide for routine maintenance for flood risk management and allow for a thorough inspection.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over \$5,711,000 in damages over the course of its operation.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Michael J. Kirwan Dam and Reservoir, OH

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500), with local cooperation requirements modified by the Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Michael J. Kirwan Dam is located near Newton Falls, OH on the West Branch of the Mahoning River, about 12.0 miles above the junction of the West Branch and the Mahoning River. The reservoir is located entirely within Portage County. Michael J. Kirwan Dam and Reservoir is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,189,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,390,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,207,000 O: \$1,036,000 T: \$2,243,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,130,000 – Funding provides for routine Operation and Maintenance for the dam and spillway erosion repairs.

RC: \$57,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$56,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Michael J. Kirwan Dam is estimated to have prevented more than \$827,510,000 in damages since its completion in 1967. The average annual recreational visits from 2009 through 2013 was 202,929.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$60,000.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mosquito Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mosquito Dam is on Mosquito Creek, 12.6 miles upstream from its junction with the Mahoning River at Niles, OH. The multi-purpose reservoir is located entirely in Trumbull County.

FISCAL YEAR 2016 ALLOCATION: \$1,415,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds will be used for Interim Risk Reduction Measures to repair the seal on the stilling basin training wall joints for \$275,000.

FISCAL YEAR 2017 ALLOCATION: \$1,222,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$342,000 O: \$874,000 T: \$1,216,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,037,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$104,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$67,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: \$8,000 – Funds will provide for the management of the water supply contract and related issues.

OTHER INFORMATION: Mosquito Creek Lake is estimated to have prevented more than \$445,789,000 in damages since its completion in 1944. The lake serves as a water source for the City of Warren. The average annual recreational visits from 2009 through 2013 was 834,377.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$116,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

+APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Muskingum River Lakes, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of the FCA of 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: The Muskingum River basin is the largest watershed within the state of Ohio. The river and its tributaries drain 8,051 square miles in all or parts of 24 counties in the southeastern portion of the state. The Muskingum River project includes operation and maintenance (O&M) of Atwood Lake, Beach City Lake, Bolivar Dam, Charles Mill Lake, Clendening Lake, Dover Dam, Leesville Lake, Mohawk Dam, Mohicanville Dam, Piedmont Lake, Pleasant Hill Lake, Senecaville Lake, Tappan Lake, and Wills Creek Lake.

FISCAL YEAR 2016 ALLOCATION: \$10,478,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities. Non-routine activities include an Initial Appraisal for Corundite, updating the Water Control manual, and rehabilitating the conduits at Zoar Levee.

FISCAL YEAR 2017 ALLOCATION: \$11,281,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities. Non-routine activities include plans and specifications for the Atwood Service Bridge and repairing critical guiderails at Beach City Dam so a bulkhead can be set in the case of gate failure.

BUDGETED AMOUNT FOR FY 2018: M: \$7,436,000 O: \$4,400,000 T: \$11,836,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$11,209,000 - Funds will provide for routine O&M for flood risk management. Routine activities include periodic assessments; periodic inspections; bridge inspections; steel inspections; water control management; required safety-related analyses; data collection; monitoring instrumentation; controlling reservoir releases; maintaining service contracts; and real estate out-grant management. Non-routine activities include replacing a discharge gate seal (\$50,000), Magnolia pump station pump and piping replacement (\$200,000), and the following Dam Safety Interim Risk Reduction Measures (IRRM): Magnolia Levee – repair toe drain (\$120,000); Tappan – replace two relief wells (\$495,000); Mohawk – repair toe drain (\$607,000); and update the IRRM plan (\$30,000)

RC: 588,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$39,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: Collectively, the Muskingum River Lake projects have prevented over \$4,876,649,000 in damages over the course of their operation. Project visitation for FY 2012 exceeded 6,186,000 and average annual visitation from 2008 to 2012 exceeded 7,042,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$647,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Great Lakes and Ohio River

District: Huntington

Muskingum River Lakes, OH

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Branch Kokosing River Lake, OH

AUTHORIZATION: Section 203 of the Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The North Branch Kokosing River Lake project is located north of Mount Vernon and west of Fredericktown, OH. Kokosing Dam was built by the U.S. Army Corps of Engineers for flood control, recreation, and wildlife management. The dam, completed in 1972, has a crest length of 1,400 feet. The Ohio Division of Natural Resources is responsible for fish and wildlife conservation at the lake. The Kokosing Lake Campground, located on the banks of Kokosing Lake, is leased by Muskingum Watershed Conservancy District.

FISCAL YEAR 2016 ALLOCATION: \$396,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$517,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$220,000 O: \$485,000 T: \$705,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$664,000 – Funds will provide routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate outgrant management.

RC: \$39,000 – Funds will provide for routine O&M recreational fields.

H: N/A

EN: \$2,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: Project visitation for FY 2012 exceeded 127,000 and average annual visitation 2008-2012 exceeded 193,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio-Mississippi Flood Control, OH

AUTHORIZATION: Section 7 of the Flood Control Act of 1944, P.L. 74-58 (58 Stat. 890; 33 U.S.C. 709)

LOCATION AND DESCRIPTION: This project funds activities associated with the direction of releases from the Tennessee and Cumberland Rivers during periods of flooding on the lower Ohio and Mississippi Rivers, for the primary purpose of protecting the Mississippi River and Tributaries system of levees.

FISCAL YEAR 2016 ALLOCATION: \$1,499,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance (O&M) of the lower Ohio and Mississippi River water control data system, for real time modeling and regulation of the Kentucky-Barkley system, and to make improvements to the Ohio River Hydrologic Engineering Center – River Analysis System model (HEC-RAS), the primary tool used for making reservoir flood control decisions and issuing public warnings and forecasts. This ensures we maintain our capability to operate during future flood events. In FY 2016 The Ohio River Reservoir Control Center conducted two flood operations the second of which was the 6th largest flood on record at Cairo, IL. The funds and modeling efforts were also used to support District Water Management offices with deviation decisions, data system support, and regional Corps Water Management System (CWMS) implementation.

FISCAL YEAR 2017 ALLOCATION: \$1,840,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: FY 2017 funds were used for operation and maintenance (O&M) of the lower Ohio and Mississippi River water control data system, for real time modeling and regulation of the Kentucky-Barkley system, and to make improvements to the Ohio River Hydrologic Engineering Center – River Analysis System model (HEC-RAS), the primary tool used for making reservoir flood control decisions and issuing public warnings and forecasts. This ensures we maintain our capability to operate during future flood events.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$1,818,000 T: \$1,818,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,818,000 - Funding supports regulation activities (routine O&M) at multiple Federal projects, including Kentucky Lake (operated by TVA), Barkley Lake (operated by LRN), and the Mississippi River and Tributaries system (operated by the Mississippi River Commission through MVD). Funding supports coordinated regional water control management activities, and maintains operational capabilities to execute the Flood Risk Management mission in the Ohio-Mississippi River confluence region. Actions supported include development of system-wide hydraulic and hydrologic models to support flood forecasting, warning and reservoir regulation, maintenance of satellite data collection systems, operation of computer and hardware systems required for data processing and modeling, reservoir system analysis, policy interpretation, and update of the documents governing execution of lower Ohio and Mississippi River flood control operations.

RC: N/A

H: N/A

EN: N/A

WS: N/A

Division: Great Lakes and Ohio River

Ohio-Mississippi Flood Control, OH

OTHER INFORMATION: The HEC-RAS model within the Corps Water Management System is the primary tool used for making reservoir flood control decisions and issuing public warnings and forecasts. This project returns an estimated average \$18 million of flood damage reduction benefits for every \$1 million spent. These capabilities were essential in preventing overtopping of the Mississippi River and Tributaries levee system during the record 2011 Greater Mississippi River Basin flood and more recently the 2016 flood.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$260,000. There was an additional \$114,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Paint Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Paint Creek Lake is located in Ross and Highland Counties, OH on Paint Creek, a tributary of the Scioto River. It is 36.8 miles above the mouth of Paint Creek and 100 miles above the mouth of the Scioto River. The lake is impounded by an earthen- and rock-fill dam with a central impervious core and a gated spillway. Its maximum height is 118 feet with a top length of 700 feet. The dam was completed in 1974.

FISCAL YEAR 2016 ALLOCATION: \$1,382,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,403,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$427,000 O: \$1,032,000 T: \$1,459,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,135,000 – Funds will provide for routine O&M for flood risk management. Routine activities include inspection of the service and spillway bridges, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$277,000 – Funds will provide for routine O&M Recreational functions.

H: N/A

EN: \$35,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources and pest and invasive species management (\$5,000).

WS: \$12,000 – Funds will provide for routine O&M for water supply to provide an estimated 4 million gallons per day of water to 6,000 citizens in Highland and Bourneville Counties, OH.

OTHER INFORMATION: The project has prevented over \$156,109,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 955,000 and average annual visitation from 2008 to 2012 exceeded 996,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Roseville Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Roseville Local Protection Project is located in the village of Roseville, about 9.5 miles southwest of Zanesville and 66 miles east of Columbus. The project is on the Moxahala Creek, a tributary of the Muskingum River. The Protection Project consists of 7,291 feet of channel improvements, 5,500 feet of levees, a pump station, and four gate-wells on outfalls that empty into Moxahala Creek.

FISCAL YEAR 2016 ALLOCATION: \$36,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$35,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$35,000 T: \$35,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$35,000 – Funds will provide for routine O&M for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over \$1,452,000 in damages over the course of its operation.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sandusky Harbor, OH

AUTHORIZATION: The Rivers and Harbors Appropriation Act of 1899, River and Harbor Act of 1902, 1919 (P.L. 65-200), 1927, 1935 (P.L. 74-409), 1945 (P.L. 79-14) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Sandusky Harbor is a moderate-use, deep draft commercial harbor, located on Lake Erie in the City of Sandusky, Erie County, OH. The Federal harbor has authorized depths from 21 to 26 feet.

FISCAL YEAR 2016 ALLOCATION: \$2,283,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for routine maintenance dredging performed using Government contract. The dredging will remove approximately 160,000 cubic yards of sediment from the harbor. Funding will also be used for repair to the Rock Dike rubblemound stone structure.

FISCAL YEAR 2017 ALLOCATION: \$1,618,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will be used for routine maintenance dredging performed using Government contract. The dredging will remove approximately 175,000 cubic yards of sediment from the harbor.

BUDGETED AMOUNT FOR FY 2018: M: \$1,650,000 O: \$0 T: \$1,650,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,650,000 - Funding will be used for routine maintenance dredging performed using Government contract. The dredging will remove approximately 150,000 cubic yards of sediment from the harbor.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Sandusky Harbor is the 94th leading U.S. port with 2,987,807 tons of material shipped or received in 2013, and it ranked 22nd among the Great Lakes ports. Coal is the major commodity being shipped. Major stakeholders include Norfolk Southern, Sandusky Dock Corporation, City of Sandusky, George Gradel Company, Cedar Point Amusement Park, and commercial ferries. Bulk commodities that pass through Sandusky Harbor generate an estimated \$33,000,000 annually in direct revenue.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$258,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Toledo Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1935 (P.L. 74-409), 1950 (P.L. 81-516), 1954 (P.L. 83-780), 1958 (P.L. 85-500) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Toledo Harbor is 110 miles west of Cleveland and 42 miles south of Detroit. It is a high-use, deep-draft commercial harbor, located at the southwestern corner of Lake Erie. Project authorized depths are 28 feet in the bay, 27 feet in the lower river, and 25 feet in the upper river.

FISCAL YEAR 2016 ALLOCATION: \$7,293,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for routine operation and maintenance (O&M) dredging for navigation in the Maumee River and Bay, project condition surveys, critical maintenance repairs to the Island 18 Confined Disposal Facility exterior and continued development of an environmental Master Plan for the Island 18 Confined Disposal Facility. Non-routine maintenance funds will provide for Engineering and Design of the Island 18 Combined Disposal Facility at an estimated cost of \$200,000.

FISCAL YEAR FY 2017 ALLOCATION: \$5,405,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will be used for routine O&M for navigation including dredging of the Maumee River and Bay and project condition surveys. The dredging will remove approximately 200,000 cubic yards of sediment from the Maumee River and 600,000 cubic yards of sediment from the Maumee Bay.

BUDGETED AMOUNT FOR FY 2018: M: \$5,380,000 O: \$722,000 T: \$6,102,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,102,000 – Funding will be used for routine O&M for navigation including dredging of the Maumee River and Bay and project condition surveys. The dredging will remove approximately 200,000 cubic yards of sediment from the Maumee River and 600,000 cubic yards of sediment from the Maumee Bay. In addition, funds are provided for Dredged material management plan preliminary assessment (\$100,000)

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Toledo Harbor is the 55th leading U.S. port with 8,836,985 tons of material shipped or received in 2013, and is ranked 7th among the Great Lakes ports. Toledo Harbor has direct access to inter-modal connections and also functions as a critical harbor of refuge. Cargo includes coal, petroleum, aggregates, metal products, limestone, grain, chemicals, iron ore, steel products, cement, ores, minerals, and sugar. Bulk commodities that pass through Toledo Harbor generate estimated \$381,000,000 annual revenue. Major stakeholders include the Toledo-Lucas County Port Authority, City of Toledo, U.S. Coast Guard, St. Mary's Cement Inc., Midwest Terminals of Toledo International,

Division: Great Lakes and Ohio River

District: Buffalo

Toledo Harbor, OH

Kuhlman Corporation, The Andersons Inc., Archer-Daniels-Midland Company, Hansen Mueller Co., BP Husky Refining LLC, Arc Terminals Holdings LLC, Shelly Liquid Division, Seneca Petroleum Company, Sunoco MidAmerica M&R, CSX, Lafarge Cement, Arms Trucking Co., Kraft Foods and Ironhead Marine Inc.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,299,000. There was an additional \$221,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tom Jenkins Dam, OH

AUTHORIZATION: Section 10 of Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: The Federal project includes the Tom Jenkins Dam and Burr Oak Reservoir, which is located in Athens County, OH. The dam is 0.3 miles above the mouth of East Branch of Sunday Creek and 57.2 miles above the mouth of the Hocking River. The dam, completed in 1950, is rolled earthen-fill with a maximum height of 84 feet and a top length of 944 feet.

FISCAL YEAR 2016 ALLOCATION: \$772,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$774,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$284,000 O: \$514,000 T: \$798,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$670,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$85,000 – Funds will provide for routine O&M Recreational facilities.

H: N/A

EN: \$31,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: \$12,000 – Funds will provide for routine O&M for water supply to provide 8 million gallons per day of water to 25,000 citizens in Athens and Morgan Counties in Ohio.

OTHER INFORMATION: The project has prevented over \$30,865,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 285,000 and average annual visitation from 2008 to 2012 exceeded 445,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Fork of Mill Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: West Fork Lake is 14 miles north of Cincinnati in Hamilton County, Ohio. The dam is an earthen-fill dam, 100-feet high and 1,100-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. In addition, it provides a reduction of pumping requirements at the barrier dam of the local flood protection works at Cincinnati. Recreational development is under lease agreement to the Hamilton County Park District Board.

FISCAL YEAR 2016 ALLOCATION: \$950,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$858,000

DESCRIPTIONS OF WORK FOR FY 2017: All project work to be completed during FY 2017 will be routine O&M.

BUDGETED AMOUNT FOR FY 2018: M: \$167,000 O: \$603,000 T: \$770,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$698,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Critical dam safety programs are also supported with these funds.

RC: \$16,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$56,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: In FY 2015 the project is estimated to have prevented \$1,839,000 in flood damages and total \$117,684,000 since 1952. FY 2012 recreation visits were 665,619 and estimated FY 2012 visitor expenditures were \$12,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$61,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: William H. Harsha Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: William H. Harsha Lake is located on the East Fork of the Little Miami River just downstream of Williamsburg in Clermont County, Ohio. The dam is earthen-fill with outlet works, a separate saddle dam, and spillway. The dam is 200-feet high and 1,450-feet long. The Saddle Dam is 100-feet high and 2,600-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2016 ALLOCATION: \$1,579,000

DESCRIPTIONS OF WORK FOR FY 2016: All project work completed, by business line, during FY 2016 was routine operation and maintenance (O&M).

FISCAL YEAR 2017 ALLOCATION: \$1,314,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used to replace the Motor Control Center panel for gate operations. All other work projected within each business line will fund baseline operation and routine maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$272,000 O: \$1,009,000 T: \$1,281,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,058,000 – Funding provides for routine O&M of the dam, outlet works, and related infrastructure. Dam safety programs are also supported with these funds. Non-routine funds will be used for the replacement of the motor control center panel for flood gate operation.

RC: \$114,000 - Funding provides for routine O&M of recreation.

H: N/A

EN: \$101,000 – Funding provides for routine O&M of environmental stewardship activities. Activities include natural resource management, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: \$8,000 – Funding provides for routine activities for coordination of water supply contracts, and addresses local and congressional concerns.

OTHER INFORMATION: In FY 2015 this project is estimated to have prevented \$3,117,000 in flood damages and total \$121,575,000 since 1977. FY 2012 recreation visits were 834,438 and estimated FY 2012 visitor expenditures were \$18,000,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$49,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

OKLAHOMA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arcadia Lake, OK

AUTHORIZATION: Flood Control Act of 1970

LOCATION AND DESCRIPTION: Arcadia Lake is located in the metropolitan area of Oklahoma City and Edmond in Oklahoma County on the Deep Fork River at river mile 218.3. This is a multi-purpose project with flood control, water supply, and recreation facilities. The project covers 1,820 acres and has a 5,250 foot long rolled earth filled embankment with an uncontrolled saddle spillway.

FISCAL YEAR 2016 ALLOCATION: \$467,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) of the flood control structure, recreation areas, environmental stewardship, and water supply.

FISCAL YEAR 2017 ALLOCATION: \$3,122,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine O&M of the dam and other facilities and to undertake repairs on the service and emergency gates.

BUDGETED AMOUNT FOR FY 2018: M: \$232,000 O: \$492,000 T: \$724,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$561,000 – Funding will be used for routine O&M of flood risk structures and dam safety data collection.

RC: \$48,000 – Funding will be used for routine O&M for recreation including breakdown maintenance.

H: N/A

EN: \$110,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, public education programs, and National Environmental Policy Act (NEPA) compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, tracking water storage contract billing and payments, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1986, Arcadia Lake is estimated to have prevented \$35 million in cumulative flood damages. In FY 2012 over 791,000 recreation visits occurred with an estimated local economic impact of nearly \$11 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$36,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Birch Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Birch Lake is 1.5 miles south of the town of Barnsdall in Osage County, Oklahoma. It is located at river mile 0.8 on Birch Creek, a tributary of Bird Creek. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 3,193 foot long rolled earth fill embankment with an uncontrolled spillway, and a conduit controlled by two slide gates. At conservation pool depth, the lake covers 1,137 acres.

FISCAL YEAR 2016 ALLOCATION: \$666,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 project funds were used for routine operation and maintenance (O&M) on the flood control structure, recreation areas, and environmental compliance activities.

FISCAL YEAR 2017 ALLOCATION: \$674,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$2,839,000 O: \$611,000 T: \$3,450,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,188,000 – Funding will be used for routine O&M of structures that reduce flood risk, inspection of structures, and collection of dam safety data. In addition, non-routine work package will be funded to rehabilitate and repair service gates (\$2,575,000).

RC: \$203,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$59,000 – Funding will be used for routine environmental compliance activities.

WS: N/A

OTHER INFORMATION: Since construction in 1977, Birch Lake is estimated to have prevented \$144 million in cumulative flood damages. Over 66,000 recreation visits with an estimated local economic impact of \$1.8 million occurred at Birch Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Broken Bow Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Broken Bow Lake is 9 miles northeast of the town of Broken Bow in McCurtain County, Oklahoma. The project is located on the Mountain Fork River, a tributary of the Little River, at river mile 20.3. This is a multi-purpose project authorized for flood control, hydropower, water supply, recreation, and fish and wildlife. The project consists of a 2,750 foot long rolled earth fill embankment with a concrete ogee weir controlled spillway, eight tainter gates, and two 50 megawatt generators. At conservation pool depth the lake covers 14,200 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,191,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure, the powerhouse and hydropower generating units, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$2,788,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam, powerhouse, and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$5,451,000 O: \$1,976,000 T: \$7,427,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$5,050,000 – Funding will be used for routine O&M. Non-routine activities include replacing the floating bulkhead (\$4,500,000).

RC: \$102,000 – Funding will be used for routine O&M for recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

H: \$1,723,000 – Funding will be used for routine O&M of hydropower generation equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service. A total of \$300,000 will be used for the purchase and installation of a new sequential event recorder in the powerhouse.

EN: \$103,000 – Funding will be used for routine O&M for environmental compliance activities

WS: \$10,000 – Funding will be used for monitoring of water usage; management of current water storage agreements; and tracking water storage contract billing and payments.

OTHER INFORMATION: Since construction in 1970, Broken Bow Lake is estimated to have prevented \$102,000,000 in cumulative flood damages. The budgeted amount for the project includes \$439,000 for project features jointly used by multiple business lines: FRM 68.8%, REC 22.8%, HYD 7.7%, and EN 1%. Over 748,000 recreation visits with an estimated local economic impact of \$7,391,000 occurred at Broken Bow Lake in FY 2012. The cold water fishery below Broken Bow Lake is one of the premier brown and rainbow trout streams in the south-central United States.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$436,000. There was an additional \$22,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canton Lake, OK

AUTHORIZATION: Flood Control Act of 1938, Flood Control Act of 1946, Flood Control Act of 1948, and the Water Resources Development Act of 1990

LOCATION AND DESCRIPTION: Canton Lake is located on the North Canadian River at river mile 394.3, about 2 miles north of the town of Canton in Blaine County, Oklahoma. This is a multi-purpose project with flood control, water supply, and irrigation outputs. The project consists of a 15,140 foot long rolled earth fill embankment with a 640 foot gated concrete spillway that rises to a maximum height of 68 feet. Spillway discharges are controlled by 16 tainter gates. At conservation pool depth the lake covers 7,910 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,307,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M). Non-routine maintenance activities included awarding \$2,000,000 for a contract to replace three sluice gates and rehab the gate liners, and \$28,000 to conduct an ARC flash study to identify potential electrical hazards at the project.

FISCAL YEAR 2017 ALLOCATION: \$2,341,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam, other facilities, and installation of a solar-powered electric system to restroom facilities in the Big Bend Area to minimize the amount of electric energy utilized in the campground.

BUDGETED AMOUNT FOR FY 2018: M: \$382,000 O: \$1,766,000 T: \$2,148,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,039,000 – Funding will be used for routine O&M on structures.

RC: \$1,001,000 – Funding will be used for routine O&M activities.

H: N/A

EN: \$103,000 - Funding will be used for routine environmental compliance activities

WS: \$5,000 - Funding will be used for monitoring of water usage and quality; management of current water storage agreements; tracking water storage contract billing and payments; and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1948, Canton Lake is estimated to have prevented \$117 million in cumulative flood damages. Over 680,000 recreation visits with an estimated local economic impact of \$7.4 million occurred at Canton Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$122,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Tulsa

Canton Lake, OK

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Copan Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Copan Lake is nine miles north of the City of Bartlesville in Washington County, Oklahoma. It is located at river mile 7.4 on the Little Caney River, a tributary of the Caney River. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 7,730 foot long rolled earth fill embankment with a gate controlled, concrete, gravity ogee weir with four tainter gates. At conservation pool depth the lake covers 4,449 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,149,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities including operation and preventative, routine, and limited breakdown maintenance on the flood control structure, operation and maintenance of project recreation areas, environmental compliance activities, and management of water storage agreements. Non-routine maintenance work included contracts for repairing slides on the dam embankment (\$3,000,000) and analyzing freeboard issues at the Caney Levee (\$100,000).

FISCAL YEAR 2017 ALLOCATION: \$1,053,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,733,000 O: \$823,000 T: \$2,556,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,231,000 – Funding will be used for routine O&M on structures. A total of \$1,450,000 is planned to repair the tainter gates.

RC: \$229,000 – Funding will be used for routine O&M activities.

H: N/A

EN: \$91,000 – Funding will be used for routine environmental compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1983, Copan Lake is estimated to have prevented \$1 billion in cumulative flood damages. Over 52,000 recreation visits with an estimated local economic impact of \$810,000 occurred at Copan Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$997,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Eufaula Lake, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Eufaula Lake is 12 miles east of the town of Eufaula in McIntosh County, Oklahoma and located on the Canadian River at river mile 27. This is a multi-purpose project authorized for flood control, hydropower, navigation and water supply. The project consists of a 3,300 foot long rolled earth fill embankment with a concrete gravity ogee weir controlled spillway with 11 tainter gates. The project contains three 30-megawatt hydropower generator units. At conservation pool depth the lake covers 105,500 acres.

FISCAL YEAR 2016 ALLOCATION: \$5,691,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, powerhouse and hydropower generating units, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$6,158,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam, powerhouse, and other facilities. Funds of \$100,000 will be used to convert lighting in parks to light-emitting diode (LED) lighting, saving funding in replacement costs.

BUDGETED AMOUNT FOR FY 2018: M: \$13,557,000 O: \$5,064,000 T: \$18,621,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$13,394,000 – Funding will be used for routine O&M on structures. Non-routine activities include replacing the spillway bridge superstructure (\$12,000,000).

REC: \$2,020,000 – Funding will be used for routine O&M. There is a total of \$72,000 for sustainability work on this project consisting of the replacement of a leaking water line at the Gentry Creek public use area.

H: \$1,972,000 – Funding will be used for routine O&M of the powerhouse, generating units and auxiliary equipment, and improving hydrological modernization initiative priority activities. A total of \$300,000 will be used to purchase and install a new sequential events recorder for the hydropower plant.

EN: \$890,000 – Funding will be used for routine environmental compliance activities.

WS: \$95,000 – Funding will be used for monitoring of water usage and management of water storage agreements.

OTHER INFORMATION: Since construction in 1964, Eufaula Lake is estimated to have prevented \$587 million in cumulative flood damages. The budgeted amount for the project includes \$250,000 for project features jointly used by multiple business lines: FRM 67%, N 18%, HYD 14%, and EN 1%. Over 2,466,000 recreation visits with an estimated local economic impact of \$30,000,000 occurred at Eufaula Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$150,000. There was an additional \$9,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Southwestern

District: Tulsa

Eufaula Lake, OK

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Gibson Lake, OK

AUTHORIZATION: Flood Control Act of 1941, River and Harbor Act of 1946, and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: Fort Gibson Lake is 12 miles northeast of the town of Muskogee in Mayes, Wagoner, and Cherokee Counties of Oklahoma. It is located on the Grand (Neosho) River at river mile 7.7. This is a multi-purpose project authorized for flood control and hydropower. The project consists of a 2,990 foot long rolled earth fill embankment with a concrete, gravity ogee weir controlled spillway and the powerhouse intake structure. The spillway is equipped with thirty tainter gates, and the powerhouse has four 11.25 megawatt generator units. At conservation pool depth the lake covers 19,900 acres.

FISCAL YEAR 2016 ALLOCATION: \$5,537,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, the powerhouse and hydropower generating units, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$6,024,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam, powerhouse, and other facilities. Non-routine maintenance planned for the project consists of the procurement of a turbine maintenance platform (\$120,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,235,000 O: \$4,739,000 T: \$5,974,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$804,000 – Funding will be used for routine O&M.

RC: \$1,729,000 – Funding will be used for routine O&M.

H: \$2,543,000 – Funding will be used for routine O&M. A total of \$300,000 will be used to purchase and install a new sequential event recorder at the powerhouse.

EN: \$481,000 – Funding will be used for routine environmental compliance activities.

WS: N/A

OTHER INFORMATION: Since construction in 1949, Fort Gibson Lake is estimated to have prevented \$465 million in cumulative flood damages. The budgeted amount for the project includes \$417,000 for project features jointly used by multiple business lines: FRM 52%, and HYD 48%. Over 1,677,000 recreation visits with an estimated local economic impact of \$18.6 million occurred at Fort Gibson Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$240,000. There was an additional \$10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Supply Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Fort Supply Lake is 12 miles northwest of the town of Woodward in Woodward County, Oklahoma. It is located at river mile 5.5 on Wolf Creek, a tributary of the North Canadian River. This is a multi-purpose project authorized for flood control and water supply. The project consists of an 11,865 foot long rolled earth fill embankment with an uncontrolled, concrete, chute-type spillway. Spillway discharges are controlled by three vertical lift gates. At conservation pool depth the lake covers 1,820 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,161,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, project recreation areas, and environmental compliance activities.

FISCAL YEAR 2017 ALLOCATION: \$1,072,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities. Funding of \$40,000 will be used to award a sustainability package to install solar powered electric system to restroom facilities in Supply Park.

BUDGETED AMOUNT FOR FY 2018: M: \$251,000 O: \$1,055,000 T: \$1,306,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$742,000 – Funding will be used for routine O&M and collection of dam safety data.

RC: \$504,000 – Funding will be used for routine O&M.

H: N/A

EN: \$60,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance activities.

WS: N/A

OTHER INFORMATION: Since construction in 1942, Fort Supply Lake is estimated to have prevented \$47 million in cumulative flood damages. Over 329,000 recreation visits with an estimated local economic impact of \$3.3 million occurred at Fort Supply Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$56,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

AUTHORIZATION TITLE: Operation and Maintenance

PROJECT NAME: Great Salt Plains Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Great Salt Plains Lake is 12 miles east of the town of Cherokee in Alfalfa County, Oklahoma, and located on the Salt Fork of the Arkansas River at river mile 103.3. This is a multi-purpose project authorized for flood control, conservation, recreation, and fish and wildlife. The project consists of a rolled, earth fill embankment and concrete spillway with three ungated, concrete weirs. The embankment has a total crest length of 6,010 feet and rises to a maximum height of 68 feet above the streambed. At the top of the flood control pool the lake covers 25,660 acres.

FISCAL YEAR 2016 ALLOCATION: \$428,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$340,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$65,000 O: \$295,000 T: \$360,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$294,000 – Funding will be used for routine O&M and collection of dam safety data.

RC: \$32,000 – Funding will be used for routine O&M.

H: N/A

EN: \$34,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance activities.

WS: N/A

OTHER INFORMATION: Since construction in 1941, Great Salt Plains Lake is estimated to have prevented \$278 million in cumulative flood damages. Over 167,000 recreation visits with an estimated local economic impact of \$1.6 million occurred at Great Salt Plains Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Heyburn Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Heyburn Lake is 11 miles southwest of the City of Sapulpa in Creek County, Oklahoma. It is located at river mile 48.6 on Polecat Creek, a tributary of the Arkansas River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 2,920 foot long rolled earth fill embankment with an uncontrolled spillway. At conservation pool depth the lake covers 877 acres.

FISCAL YEAR 2016 ALLOCATION: \$812,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities including preventative, routine, and limited breakdown maintenance on the flood control structure, O&M of project recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$638,000

DESCRIPTION OF WORK FOR FY 2017: FY 2017 funds will be used for the operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$147,000 O: \$600,000 T: \$747,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$375,000 – Funding will be used for routine O&M of flood risk structures to insure they are performing as designed and dam safety data collection.

RC: \$300,000 – Funding will be used for routine O&M activities related to recreation.

H: N/A

EN: \$67,000 – Funding will be used for routine environmental compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: Since construction in 1950, Heyburn Lake is estimated to have prevented \$72,000,000 in cumulative flood damages. Over 163,000 recreation visits with an estimated local economic impact of \$4,085,000 occurred at Heyburn Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$44,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hugo Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Hugo Lake is seven miles east of the City of Hugo in Choctaw County, Oklahoma, and located on the Kiamichi River at river mile 17.6. This is a multi-purpose project authorized for flood control, water supply, water quality, recreation, and fish and wildlife. The project consists of a 10,200 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with six gates. At conservation pool depth the lake covers 13,144 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,976,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities including preventative, routine, and limited breakdown maintenance on the flood control structure, operation and maintenance of project recreation areas, environmental compliance activities, and management of water storage agreements and non-routine maintenance.

FISCAL YEAR 2017 ALLOCATION: \$1,813,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$172,000 O: \$1,450,000 T: \$1,622,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$721,000 – Funding will be used for routine O&M of flood risk structures to insure they are performing as designed and dam safety data collection.

RC: \$728,000 – Funding will be used for routine O&M for recreation, including ranger patrols; mowing and other service contracts.

H: N/A

EN: \$163,000 – Funding will be used for routine environmental compliance activities and National Environmental Policy Act (NEPA) compliance activities.

WS: \$10,000 – Funding will be used for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: Since construction in 1974, Hugo Lake is estimated to have prevented \$182,000,000 in cumulative flood damages. Over 432,000 recreation visits with an estimated local economic impact of \$5,070,000 occurred at Hugo Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$44,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hulah Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Hulah Lake is 15 miles northwest of the City of Bartlesville in Osage County, Oklahoma. It is located at river mile 96.2 on the Caney River, a tributary of the Verdigris River. This is a multi-purpose project authorized for flood control, water supply, low flow regulation, and conservation. The project consists of a 10,200 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with ten tainter gates. At conservation pool depth the lake covers 3,120 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,339,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure, project recreation areas, environmental compliance activities, and management of water storage agreements. Non-routine maintenance consisted of a contract award to repair some of the tainter gates at the dam (\$2,900,000).

FISCAL YEAR 2017 ALLOCATION: \$1,857,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the operation and maintenance of the dam and other facilities. Budgeted non-routine maintenance funds of \$1,000,000 will be used to repair additional tainter gates at the dam structure.

BUDGETED AMOUNT FOR FY 2018: M: \$303,000 O: \$604,000 T: \$907,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$756,000 – Funding will be used for routine O&M on structures that reduce flood risk.

RC: \$46,000 – Funding will be used for routine O&M related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; and utilities.

H: N/A

EN: \$95,000 – Funding will be used for routine environmental compliance activities.

WS: \$10,000 – Funding will be used for monitoring of water usage; management of current water storage agreements; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: Since construction in 1951, Hulah Lake is estimated to have prevented \$1,837,000,000 in cumulative flood damages. Over 56,000 recreation visits with an estimated local economic impact of \$680,000 occurred at Hulah Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$141,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kaw Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Kaw Lake is eight miles east of the town of Ponca City in Kay County, Oklahoma, and located on the Arkansas River at river mile 653.7. This is a multi-purpose project authorized for flood control, water supply, water quality, hydropower, recreation, and fish and wildlife. The project consists of a 9,466 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with eight tainter gates. A 37 kilowatt hydropower generator is located at the project. At conservation pool depth the lake covers 16,750 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,947,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure, project recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$2,000,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$298,000 O: \$2,100,000 T: \$2,398,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,121,000 – Funding will be used for routine O&M for flood risk management; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

RC: \$1,000,000 – Funding will be used for routine O&M for recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; and utilities. There is a total of \$75,000 for sustainability work on this project consisting of the replacement of the water system at the Washunga Bay public use area.

H: N/A

EN: \$267,000 – Funding will be used for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; and invasive species control.

WS: \$10,000 – Funding will be used to monitor water usage and manage water storage agreements.

OTHER INFORMATION: Since construction in 1977, Kaw Lake is estimated to have prevented \$1,061,000,000 in cumulative flood damages. Over 155,000 recreation visits with an estimated local economic impact of \$2,109,000 occurred at Kaw Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$143,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Keystone Lake, OK

AUTHORIZATION: River and Harbor Act of 1950

LOCATION AND DESCRIPTION: Keystone Lake is 15 miles west of Tulsa in Tulsa County, Oklahoma, and located on the Arkansas River at river mile 538.8. This is a multi-purpose project authorized for flood control, water supply, hydroelectric power, navigation, and fish and wildlife. The project consists of a 4,600 foot long rolled earth fill embankment with a concrete gated ogee weir controlled spillway with 18 tainter gates. The project contains two 35 megawatt hydropower generator units. At conservation pool depth the lake covers 23,610 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,852,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure, the powerhouse and hydropower generating units, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$4,793,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the operation and maintenance of the dam, powerhouse and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,374,000 O: \$3,699,000 T: \$5,073,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,226,000 – Funding will be used for routine O&M for flood risk management.

RC: \$1,202,000 – Funding will be used for routine O&M for recreation.

H: \$2,017,000 – Funding will be used for routine O&M of the powerhouse and associated equipment generating units and auxiliary equipment. A total of \$300,000 will be used to purchase and install a new sequential events recorder at the powerhouse.

EN: \$457,000 – Funding will be used for routine environmental compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage; management of current water storage agreements; and tracking water storage contract billing and payments.

OTHER INFORMATION: Since construction in 1964, Keystone Lake is estimated to have prevented \$1,700,000,000 in cumulative flood damages. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$166,000 shared between business lines as follows: FRM 62%, NAV 26%, HYD 11%, and EN 1%. Over 1,062,000 recreation visits with an estimated local economic impact of \$25,660,000 occurred at Keystone Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$197,000. There was an additional \$21,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Tulsa

Keystone Lake, OK

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The McClellan-Kerr Arkansas River Navigation System (MKARNS) provides a route from the Mississippi River through Arkansas and Oklahoma, to the head of navigation at the Port of Catoosa, near Tulsa, Oklahoma. The navigation channel has a minimum depth of 9 feet and minimum widths of 250 feet on the Arkansas River and 150 feet on the Verdigris River. Total length of the Tulsa District portion of the system is 137 navigation miles. The five locks on the project have chambers that are 110 by 600 feet with 20 to 21 foot normal lifts.

FISCAL YEAR 2016 ALLOCATION: \$20,070,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the navigation locks, hydropower plants, recreation areas, and environmental compliance activities. Non-routine maintenance activities included replacing gearboxes at the locks (\$150,000), undertaking emergency dredging within the navigation channel (\$1,675,000), repairing broken tainter gate anchorage at one of the locks (\$50,000), and rehabbing the downstream miter gates on the Webbers Falls Lock and Dam portion of the system (\$2,100,000).

FISCAL YEAR 2017 ALLOCATION: \$17,161,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation of the navigation system, O&M of the dams, powerhouses, and other facilities, continue the Major Rehab Report to address system maintenance needs, undertake dredging within the navigation channel, purchase pintle balls parts, rehab and paint damaged tainter gates, update the system dredge material management plan, and undertake a power review at both powerhouses.

BUDGETED AMOUNT FOR FY 2018: M: \$16,203,000 **O:** \$13,161,000 **T:** \$29,364,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$12,046,000 – Funding will be used for routine O&M for navigation maintenance; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and lock and dam inspections. In addition, non-routine work packages will be funded to upgrade facility security (\$150,000), complete the Dredge Material Management plan (\$200,000), replace control wiring at Newt Graham Lock and Dam, (\$450,000), replace lock control building roof at Chouteau Lock (\$150,000), replace the lock and dam control wiring (\$550,000) and lock control building roof (\$150,000) at Robert S. Kerr Lock and Dam, and replace the pintle ball and bushing (\$400,000) and lock control building roof (\$150,000) at Webber Falls Lock and Dam.

FRM: N/A

RC: \$1,558,000 – Funding will be used for routine O&M for recreation.

H: \$9,331,000 - Funding will be used for routine O&M of hydropower generators and equipment. In addition, non-routine work packages will be funded for \$4,000,000 to replace the roller gate at Webbers Falls Lock and Dam, \$300,000 to purchase and install a new sequential event recorder at Webbers Falls, and \$300,000 to purchase and install a new sequential event recorder at Robert S. Kerr Lock and Dam.

EN: \$370,000 – Funding will be used for routine environmental compliance activities.

Division: Southwestern

District: Tulsa

McClellan-Kerr Arkansas
River Navigation System, OK

WS: N/A

OTHER INFORMATION: Beginning with the FY 2017 budget, the Robert S. Kerr Lock and Dam (RSK) project and the Webbers Falls Lock and Dam (WF) project have been combined with the McClellan-Kerr Arkansas River Navigation System project. Therefore, all of the business line amounts reflect the total for all three projects combined. The budgeted amount for the project includes \$6,059,000 for project features jointly used by multiple business lines: N 62% (RSK) and 72% (WF), HYD 32% (RSK) and 16% (WF), REC 5% (RSK) and 11% (WF), and EN 1% (RSK) and 1% (WF). These joint activities include \$4,500,000 for a joint-use work package to construct 18 new 50 foot stoplogs for use at the Robert S. Kerr Lock and Dam project. Seven hydropower plants are on the project with a total hydropower capacity of 170,000 kilowatts. Over 1,200,000 recreation visits with an estimated local economic impact of \$19 million occurred in the Oklahoma portion of the MKARNS in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$808,000. There was an additional \$71,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

PROJECT NAME: Oologah Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Oologah Lake is two miles southeast of the City of Oologah in Rogers County, Oklahoma, and located on the Verdigris River at river mile 90.2. This is a multi-purpose project authorized for flood control, water supply, navigation, recreation, and fish and wildlife. The project consists of a 4,000 foot long rolled earth fill embankment with a gate controlled, modified concrete gravity ogee weir spillway with seven radial gates. At conservation pool depth the lake covers 31,043 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,547,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$2,485,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$536,000 O: \$2,275,000 T: \$2,811,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,467,000 – Funding will be used for routine O&M for and collection of dam safety data. Non-routine activities includes replace asphalt at the outlet works (\$100,000).

RC: \$1,010,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$299,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance.

WS: \$35,000 – Funding will be used monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1963, Oologah Lake is estimated to have prevented \$1 billion in cumulative flood damages. Over 984,000 recreation visits with an estimated local economic impact of \$22 million occurred at Oologah Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Optima Lake, OK

AUTHORIZATION: Flood Control Act of 1936, as amended by the Flood Control Act of 1950

LOCATION AND DESCRIPTION: Optima Lake is 4.5 miles northeast of the City of Hardesty in Texas County, Oklahoma and located on the North Canadian River at river mile 623.2. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 16,900 foot long rolled earth fill embankment with an uncontrolled emergency spillway. At conservation pool depth the lake covers 5,340 acres.

FISCAL YEAR 2016 ALLOCATION: \$36,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for maintenance and inspection of project structures.

FISCAL YEAR 2017 ALLOCATION: \$112,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the maintenance and inspection of project structures.

BUDGETED AMOUNT FOR FY 2018: M: \$4,000 O: \$57,000 T: \$61,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$61,000 – Funding will be used for maintenance and inspection of project structures.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Funds are sufficient to ensure the safety, security, and integrity of the project. In order to reduce annual Civil Works O&M costs, 12,400 acres of the 13,250 acres of Federal lands at Optima Lake are being managed by the U.S. Fish and Wildlife Service and the Oklahoma Department of Wildlife Conservation under licensing and cooperative agreements.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$4,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pensacola Reservoir, Lake of the Cherokees, OK

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Pensacola Reservoir, Lake of the Cherokees, is 13 miles southeast of the town of Vinita in Mayes and Delaware Counties, Oklahoma, and located on the Grand (Neosho) River at river mile 77. This is a multi-purpose project authorized for hydropower and flood control. The project consists of a concrete, multiple-arch dam with gated spillways. The total length of the dam and spillways is 6,565 feet. The main spillway and the two east spillways are equipped with 21 tainter gates. A total of six 20-megawatt hydropower generators owned and maintained by the Grand River Dam Authority are located within the structure. At power pool depth the lake covers 46,500 acres.

FISCAL YEAR 2016 ALLOCATION: \$147,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities, including inspection of encroachments within the flood control easement administered by United States Army Corps of Engineers (USACE) for the Grand River Dam Authority.

FISCAL YEAR 2017 ALLOCATION: \$163,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M of flood risk reduction structures O&M activities, including operation of the pool during flood events and inspection of encroachments within the flood control easement administered by USACE for the Grand River Dam Authority.

BUDGETED AMOUNT FOR FY 2018: M: \$5,000 O: \$160,000 T: \$165,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$165,000 – Funding will be used for routine O&M activities, including operation of the pool during flood events and inspection of encroachments within the flood control easement administered by USACE for the Grand River Dam Authority.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project was constructed by the Grand River Dam Authority, an Oklahoma State agency, in 1940. Operation of the flood control storage in the reservoir is the responsibility of the USACE in accordance with the provisions of Section 7 of the Flood Control Act of 1944.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$24,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine Creek Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Pine Creek Lake is five miles northwest of the town of Wright City in McCurtain County, Oklahoma, and located on the Little River at river mile 145.3. This is a multi-purpose project authorized for flood control, water supply, water quality, fish and wildlife, and recreation. The project consists of a 7,712 foot long rolled earth fill embankment with an uncontrolled, gravity ogee weir spillway. The outlet works includes an intake structure, a 13-foot diameter conduit, and 48-inch low flow pipe, and a 36-inch water supply static head line. At conservation pool depth the lake covers 3,750 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,352,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, operation and maintenance (O&M) of project recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$6,535,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities, repairs to the service bridge and gates, and for continued cultural resources investigations in support of the on-going dam safety project.

BUDGETED AMOUNT FOR FY 2018: M: \$324,000 O: \$1,115,000 T: \$1,439,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$738,000 – Funding will be used for routine O&M activities.

RC: \$491,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$205,000 – Funding will be used for routine environmental compliance activities.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1969, Pine Creek Lake is estimated to have prevented \$126 million in cumulative flood damages. Over 160,000 recreation visits with an estimated local economic impact of \$1.7 million occurred at Pine Creek Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$311,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sardis Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Sardis Lake is 2.5 miles north of the City of Clayton in Pushmataha County, Oklahoma, and located at river mile 2.8 on Jackfork Creek, a tributary of the Kiamichi River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 14,138 foot long rolled earth fill embankment with an uncontrolled spillway and a gate tower with two wheel gates. At conservation pool depth the lake covers 13,610 acres.

FISCAL YEAR 2016 ALLOCATION: \$981,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$889,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,260,000 O: \$985,000 T: \$2,245,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,833,000 – Funding will be used for routine O&M and collection of dam safety data. Non-routine maintenance activities include repairing conduit joints and the embankment toe drain (\$1,030,000).

RC: \$343,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$64,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1983, Sardis Lake is estimated to have prevented \$88 million in cumulative flood damages. Over 90,000 recreation visits with an estimated local economic impact of more than \$1.1 million occurred at Sardis Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$37,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Skiatook Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Skiatook Lake is five miles west of the town of Skiatook in Osage County, Oklahoma, and located at river mile 14.3 on Hominy Creek, a tributary of Bird Creek. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 3,590 foot long rolled earth fill embankment with an uncontrolled spillway and a gate tower with two gates. At conservation pool depth the lake covers 10,190 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,659,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$4,843,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam and other facilities. Non-routine maintenance planned for FY 2017 consists of repairs to the service, emergency, and low flow gates and liners.

BUDGETED AMOUNT FOR FY 2018: M: \$419,000 O: \$1,580,000 T: \$1,999,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,048,000 – Funding will be used for routine O&M and collection of dam safety data.

RC: \$774,000 – Funding will be used for routine O&M.

H: N/A

EN: \$149,000 – Funds will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance.

WS: \$28,000 will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1984, Skiatook Lake is estimated to have prevented \$525 million in cumulative flood damages. Over 369,000 recreation visits with an estimated local economic impact of \$9 million occurred at Skiatook Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$27,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tenkiller Ferry Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Tenkiller Ferry Lake is 22 miles southeast of the City of Muskogee in Cherokee and Sequoyah Counties, Oklahoma, and located on the Illinois River at river mile 12.8. This is a multi-purpose project authorized for flood control and hydropower. The project consists of a 3,000 foot long rolled earth fill embankment with a concrete, gravity controlled spillway with ten tainter gates. The project contains two 19.5 megawatt hydropower generator units. At conservation pool depth the lake covers 12,900 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,650,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure, the powerhouse and hydropower generating units, recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$4,953,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam, powerhouse, and other facilities. A water supply reallocation study will be initiated at the project for \$300,000.

BUDGETED AMOUNT FOR FY 2018: M: \$932,000 O: \$3,949,000 T: \$4,881,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$557,000 - Funding will be used for routine O&M activities.

RC: \$1,643,000 - Funding will be used for routine O&M activities.

H: \$1,704,000 - Funding will be used for routine O&M of hydropower generators and associated equipment and improve hydrological modernization initiative priority activities. A total of \$300,000 will be used to purchase and install a new sequential event recorder in the powerhouse.

EN: \$568,000 - Funding will be used for routine environmental compliance activities.

WS: \$93,000 - Funding will be used for monitoring of water usage and quality, management of current water storage agreements and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1952, Tenkiller Ferry Lake is estimated to have prevented \$266 million in cumulative flood damages. The budgeted amount for the project includes \$316,000 for project features jointly used by multiple business lines: FRM 65%, and HYD 35%. Over 2,583,000 recreation visits with an estimated local economic impact of \$31.4 million occurred at Tenkiller Ferry Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$111,000. There was an additional \$18,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Tulsa

Tenkiller Ferry Lake, OK

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waurika Lake, OK

AUTHORIZATION: P.L. 88-253

LOCATION AND DESCRIPTION: Waurika Lake is six miles northwest of the town of Waurika in Jefferson County, Oklahoma, and located at river mile 27.0 on Beaver Creek, a tributary of the Red River. This is a multi-purpose project authorized for flood control, irrigation, water supply, water quality, recreation, and fish and wildlife. The project consists of a 16,600 foot long rolled earth fill embankment with an uncontrolled spillway. The outlet works include a concrete conduit with two service gates and two emergency gates, a water supply pipe, and a low flow pipe. At conservation pool depth the lake covers 10,100 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,606,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,561,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$187,000 O: \$1,443,000 T: \$1,630,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018

N: N/A

FRM: \$790,000 - will be used for routine O&M activities.

REC: \$673,000 - will be used for routine O&M activities.

H: N/A

EN: \$137,000 - will be used for routine environmental compliance activities.

WS: \$30,000 - will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1977, Waurika Lake is estimated to have prevented \$212 million in cumulative flood damages. Over 297,000 recreation visits with an estimated local economic impact of \$3.6 million occurred at Waurika Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$63,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wister Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Wister Lake is located on the Poteau River at river mile 60.9, two miles south of the town of Wister in LeFlore County, Oklahoma. This is a multi-purpose project authorized for flood control, water supply, low flow augmentation, water conservation, and sedimentation control. The project consists of a 5,700 foot long rolled earth fill embankment with an uncontrolled, concrete, chute-type spillway with a modified broad-crested weir. Flows are regulated by six vertical lift gates located in a concrete gate tower. At conservation pool depth the lake covers 7,386 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,030,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$849,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$161,000 O: \$620,000 T: \$781,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$539,000 - Funding will be used for routine O&M activities.

RC: \$50,000 - Funding will be used for routine O&M activities.

H: N/A

EN: \$177,000 - Funding will be used for routine environmental compliance activities.

WS: \$15,000 - Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1949, Wister Lake is estimated to have prevented \$780 million in cumulative flood damages. Over 205,000 recreation visits with an estimated local economic impact of \$2.9 million occurred at Wister Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$103,000. There was an additional \$29,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

OREGON

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Applegate Lake, OR

AUTHORIZATION: The Flood Control Act of 1962 (PL 87-874)

LOCATION AND DESCRIPTION: The project is 23.5 miles south of Medford in southwestern Oregon near river mile 46.5 on the Applegate River. Applegate Lake is a flood reduction project with rock-fill embankment dam, 1300-foot long and 242-foot high, with a gate-controlled, concrete spillway, a regulating outlet conduit, an intake tower with multi-level intakes, and a reservoir. In addition to flood control, the reservoir is authorized for irrigation, fish and wildlife enhancement, water quality control, and recreation.

FISCAL YEAR 2016 ALLOCATION: \$1,185,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation & maintenance of flood control dam, reservoir, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$1,180,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine operation & maintenance of flood control dam, reservoir, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$85,000 O: \$973,000 T: \$1,058,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,017,000 – Funding will provide for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: \$41,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project provides 75,000 acre-feet of usable storage for flood control and water conservation utilization. The project controls runoff from a drainage area of 223 square-miles.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$140,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blue River Lake, OR

AUTHORIZATION: The Flood Control Act of 1950 (PL 81-51)

LOCATION AND DESCRIPTION: Blue River Lake is 38 miles east of Eugene on the Blue River in Oregon. It consists of a rock-fill embankment dam, 1420-feet long, 319-feet high, a spillway 70-feet long, outlet works, and an earthen- and gravel-fill dike that is 1535-feet long. Blue Lake Dam is about two miles from the mouth of the Blue River on the McKenzie River.

FISCAL YEAR 2016 ALLOCATION: \$1,005,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$5,024,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment. Non-routine includes a repair of structural deformities on one spillway gate (\$3,500,000) and an elevator upgrade (\$835,000).

BUDGETED AMOUNT FOR FY 2018: M: \$462,000 O: \$690,000 T: \$1,152,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,081,000 – Funding will provide for routine operation and maintenance for flood risk management. This includes a security assessment, \$67,000, and GDACS Replacement of SCADA, \$400,000.

RC: \$22,000 – Funding will provide for routine operation and maintenance for recreation.

H: N/A

EN: \$49,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: This project controls runoff from a drainage area of 88 square-miles. The reservoir provides 85,000 acre-feet of usable flood control storage and is operated in conjunction with the coordinated reservoir system to protect the Willamette River Valley and provide increased low water flows for navigation and other purposes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,067,000. There was an additional \$110,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bonneville Lock and Dam, OR & WA

AUTHORIZATION: Works Progress Administration of 1933, 16 US Code Section 832 (Bonneville Project Act), River and Harbors Act of 1935 (PL 74-409), as amended, Flood Control Act of 1948 (PL 81-516), and Water Resources Development Act of 1974 (PL 93-251)

LOCATION AND DESCRIPTION: Bonneville Lock and Dam is 145 river miles from the mouth of the Columbia River, 42-miles east of Portland, near Cascade Locks, Oregon. It is authorized for navigation, flood control, hydropower, fish and wildlife, and recreation. It has two powerhouses with 20 hydropower generators with a combined capacity of 1077 megawatts, a fish hatchery, a regional visitor center, and fish ladders.

FISCAL YEAR 2016 ALLOCATION: \$4,557,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine navigation lock operations & maintenance, management of recreation facilities, management for the environmental stewardship, and routine operation and maintenance of the joint facilities.

FISCAL YEAR 2017 ALLOCATION: \$8,696,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine navigation lock operations & maintenance, management of recreation facilities, management for the environmental stewardship, and routine operation and maintenance of the joint facilities. Additional funds are provided to replace navigation lock control system (\$350,000).

BUDGETED AMOUNT FOR FY 2018: M: \$5,326,000, O: \$4,715,000 T: \$10,041,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,504,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: \$1,744,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower are direct funded by the Bonneville Power Administration.

EN: \$306,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$6,487,000 for project features jointly used by multiple business lines: NAV - 100.0%. Jointly funded non-routine work includes North Spillway Viaduct Bridge P&S, \$100,000, Spillway Gate Repair Pit Modernization, \$2,400,000, and Bradford Island remediation of contaminated sites, \$325,000. This project provides a spillway dam with overflow crest at 24 feet above mean sea level. It has two powerhouses consisting of 18 units and two fish attraction units for a total power generation capacity of 1,145.7 megawatts. Fish ladders serve the main channel, Bradford Slough Channel, and Powerhouse II channel. Recreation visitation exceeds 600,000 a year at the dam site and 2,700,000 project-wide. The project also provides for navigation with a lock chamber, 86-feet wide with a 19-foot depth of water over the sill.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,534,000. There was an additional \$60,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chetco River, OR

AUTHORIZATION: Rivers and Harbors Acts of 1950 and 1945, P.L. 79-14

LOCATION AND DESCRIPTION: On the Oregon Coast about 290 miles south of the mouth of the Columbia River; two stone jetties; 14 foot deep, 120 feet wide channel entrance; barge turning basin; and small boat access channel.

FISCAL YEAR 2016 ALLOCATION: \$616,000

DESCRIPTIONS OF WORK FOR FY 2016: Annual dredging provided safe transit of commercial and recreational vessels.

FISCAL YEAR 2017 ALLOCATION: \$734,000

DESCRIPTIONS OF WORK FOR FY 2017: Annual dredging needed to provide safe transit of commercial and recreational vessels.

BUDGETED AMOUNT FOR FY 2018: M: \$809,000 O: \$0 T: \$809,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$809,000 – Annual dredging needed to provide safe transit of commercial and recreational vessels.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project supports \$8.6 million in commerce annually, including 2,000 tons of fish and shellfish landings and 4,000 tons of other commodities (2005). Economic effect of the port is \$25 million. There are over 47,000 recreational bar crossings and over 5,500 commercial bar crossings annually. Project is also a critical Harbor of Refuge and priority location for United States Coast Guard.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$41,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Columbia River at the Mouth, OR and WA

AUTHORIZATION: River and Harbor Act of 1884, as amended and River and Harbor Acts of 1905, (build Jetties and dredge), 1954 (deepen to 48'), and 1983 (deepen to 55')

LOCATION AND DESCRIPTION: The Columbia River at the Mouth Federal project maintains the entrance to the Columbia River between the States of Oregon and Washington. The high-use, deep-draft navigation entrance channel is six-miles long, 2640-feet wide, and 55-to-48-feet deep. It also has three jetties, the north and south entrance jetties and an interior jetty on the north side at river mile three.

FISCAL YEAR 2016 ALLOCATION: \$17,096,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine annual dredging.

FISCAL YEAR 2017 ALLOCATION: \$18,118,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine annual dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$22,775,000 O: \$1,356,000 T: \$24,131,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$24,131,000 – Funding will provide for routine operation and maintenance (O&M) for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This Federal project is considered one of the world's most dangerous coastal inlets due to large waves and strong currents. The project provides efficient movement of 48 million tons of cargo worth over \$16 billion from the Rocky Mountains to the Pacific Ocean each year. It is the world's second largest grain export system and provides for the passage of 12,000 commercial and 100,000 recreation vessels each year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,222,000. There was an additional \$122,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coos Bay, OR

AUTHORIZATION: Rivers and Harbor Acts of 1910 (dredging), 1919 (22-foot channel), 1930 (deepen to 24 feet), 1970 (deepen to 45 feet).

LOCATION AND DESCRIPTION: Coos Bay is located on the central Oregon coast at Coos Bay, Coos County, Oregon about 200 miles south of the Columbia River. The existing project includes:

- a. two rubble-mound, high-tide jetties at the entrance
- b. a channel across the outer bar 47-feet deep and 700-feet wide, dimensions reducing gradually to 37-feet deep and 300-feet wide at river-mile one
- c. an inner channel 37-feet deep and 300-feet wide to river-mile nine
- d. a channel 37-feet deep and 400-feet wide to river-mile 15
- e. two turning basins
- f. a boat basin access channel near the inlet in Charleston, OR.

FISCAL YEAR 2016 ALLOCATION: \$9,449,000

DESCRIPTIONS OF WORK FOR FY 2016 Funding was used for routine annual dredging needed for safe transit of commercial and recreational vessels.

FISCAL YEAR 2017 ALLOCATION: \$6,978,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used for routine annual dredging needed for safe transit of commercial and recreational vessels. Additional funds are for detailed design report and plans and specifications for the Coos Bay jetty (\$300,000) and ESA BiOp implementation for Western Snowy Plover (\$155,000).

BUDGETED AMOUNT FOR FY 2018: M: \$6,920,000 O: \$735,000 T: \$7,655,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$7,655,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project facilitates shipment of 2.3 million tons of cargo annually, mainly wood products, valued at an estimated \$25 million. Economic benefits from the project include 26 million pounds of fish and shellfish. The project is a Critical Harbor of Refuge and a US Coast Guard Headquarters and Air Station.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000,000. There was an additional \$261,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern

District: Portland

Coos Bay, OR

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cottage Grove Lake, OR

AUTHORIZATION Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cottage Grove Lake is 25 miles southeast of Eugene, OR on the Coast Fork of the Willamette River at river-mile 29. The project is authorized for flood reduction, recreation, and environmental stewardship. It consists of an earthen-fill dam, 1750-feet long, with a 264-foot long, concrete, gravity spillway, three gate-controlled outlet works, and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$1,346,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$1,332,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$717,000 O: \$1,530,000 T: \$2,247,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,429,000 – Funding will provide for routine operation and maintenance for flood risk management. Includes piezometer installation, \$240,000, and seepage and stability evaluation, \$125,000.

RC: \$587,000 – Funding will provide for routine operation and maintenance for recreation. Includes replacement of Shortridge Park Restroom, \$122,000.

H: N/A

EN: \$231,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Includes Cultural Resource Management Plan, \$75,000.

WS: N/A

OTHER INFORMATION: The reservoir provides 30,060 acre-feet of usable flood control storage and controls the runoff of a drainage area of 104 square miles. The project is operated as a part of the coordinated reservoir system that protects the Willamette River Valley and provides increased low water flow for navigation and for other purposes. Recreational development consists of day use and overnight facilities at five sites operated by the Corps of Engineers.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$101,000. There was an additional \$192,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cougar Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Cougar Lake and Dam are on the South Fork McKenzie River, 42 miles east of Eugene, Oregon. It is a multi-purpose project with a large dam, spillway, and a powerhouse with two 12.5 megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$3,249,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds provided for routine O&M for navigation, flood risk management, recreation, and natural resource management. Also includes P&S for repair of structural deformities on spillway gates.

FISCAL YEAR 2017 CONFERENCE AMOUNT: \$2,330,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds will provide for routine O&M for navigation, flood risk management, recreation, and natural resource management.

BUDGETED AMOUNT FOR FY 2018: M: \$93,000 O: \$2,067,000 T: \$2,160,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$40,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Bonneville Power Administration.

EN: \$59,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$2,061,000 for project features jointly used by multiple business lines: NAV - 1.2%, FRM - 91.3%, and WS - 7.5%. Joint funds will provide for a security assessment, \$54,000. Reservoir is 6 miles long with storage capacity at full pool of 219,000 acre-feet and controls runoff of tributary streams. Power plant consists of two 12,500-kilowatt units.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,151,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Detroit Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Detroit Lake and Dam are on North Santiam River 45 miles southeast of Salem, Oregon. It is a multi-purpose project with hydropower. It consists of two dams, spillways, and recreation sites. The main dam has two 50-megawatt hydropower generators, and the downstream re-regulating dam, Big Cliff, has one 18-megawatt generator.

FISCAL YEAR 2016 ALLOCATION: \$150,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provides for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management.

FISCAL YEAR 2017 ALLOCATION: \$1,007,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management.

BUDGETED AMOUNT FOR FY 2018: M: \$4,691,000 O: \$819,000 T: \$5,510,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$31,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Bonneville Power Administration.

EN: \$37,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$5,442,000 for project features jointly used by multiple business lines: NAV - 1.0%, FRM - 82.8%, and WS - 16.2%.). This includes Repair of Structural Deformities on 4 Spillway Gates, \$4,611,000. The main and re-regulating dam powerhouses combined have three units with a total capacity of 118-megawatts. In FY 2013, the three generators produced 342,000 megawatt-hours of electricity, enough for 32,000 homes. The reservoir has a storage capacity of 454,900 acre-feet and controls runoff of a tributary drainage area of 438-square miles

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$99,000. There was an additional \$72,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dorena Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dorena Lake is 20 miles southeast of Eugene, OR on the Row River at river-mile seven. It consists of an earthen-fill dam, 3352-feet long, 131-feet high, a 200-foot long spillway, outlet works with five conduits, a reservoir, and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$1,143,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$1,324,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$1,260,000 O: \$1,077,000 T: \$2,337,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,884,000 – Funding will provide for routine operation and maintenance for flood risk management. Includes repair and upgrade of hydraulics system (\$750,000).

RC: \$307,000 – Funding will provide for routine operation and maintenance for recreation.

H: N/A

EN: \$138,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: \$8,000 – Funding will provide for routine operation and maintenance for water supply.

OTHER INFORMATION: The reservoir provides 70,500 acre-feet of usable flood control storage and controls runoff from a basin of 265-square miles. The project is operated as a part of the coordinated reservoir system to protect the Willamette River Valley and provides increased low water flows for navigational and other purposes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$194,000. There was an additional \$110,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elk Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874), as amended.

LOCATION AND DESCRIPTION: Elk Creek Lake is 26.5 miles north of the City of Medford, OR and located in Jackson County at river-mile 1.7 on Elk Creek, a tributary of Rogue River. Elk Creek Dam was partially completed prior to a court injunction stopping construction.

FISCAL YEAR 2016 ALLOCATION: \$432,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the partially completed, flood control dam and service facilities.

FISCAL YEAR 2017 ALLOCATION: \$390,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the partially completed, flood control dam and service facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$214,000 O: \$145,000 T: \$359,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$67,000 – Funding will provide for routine operation and maintenance for flood risk management.

RC: N/A.

H: N/A

EN: \$292,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The dam was partially demolished (“notched”) in 2008 and restored the creek to its original channel to allow for fish passage.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$177,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fall Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The project is 19 miles southeast of Eugene, Oregon, on Fall Creek. The project is authorized for flood reduction and recreation. It consists of a 5,100-foot long and 180-ft high dam, a gate-controlled spillway, a stilling basin, a reservoir, and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$4,705,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment. Also includes repair of structural deformities on spillway gates and development of a communication plan.

FISCAL YEAR 2017 ALLOCATION: \$1,158,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$633,000 O: \$894,000 T: \$1,527,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,317,000 – Funding will provide for routine operation and maintenance for flood risk management.

RC: \$49,000 – Funding will provide for routine operation and maintenance for recreation.

H: N/A

EN: \$161,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Includes a seasonal ranger for cultural resources, \$40,000.

WS: N/A

OTHER INFORMATION: The reservoir provides 115,000 acre-feet of usable flood control storage and is operated as a part of the coordinated reservoir system to protect the Willamette River Valley and provide increased low water flows for navigation and other purposes.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$785,000. There was an additional \$160,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fern Ridge Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: The project is ten miles west of Eugene, OR on the Long Tom River at river-mile 24. It is authorized for flood reduction, environmental stewardship, and recreation. It consists of a 6,330-foot long earthen-fill dam, two auxiliary dikes, a spillway with six automatic radial gates, outlet works in the spillway structure, a reservoir, and recreation sites. The Federal project also includes the Long Tom River Channel downstream of dam.

FISCAL YEAR 2016 ALLOCATION: \$1,631,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$1,622,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of the flood control dam, reservoir, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$579,000 O: \$1,652,000T: \$2,231,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,605,000 – Funding will provide for routine operation and maintenance for flood risk management.

RC: \$120,000 – Funding will provide for routine operation and maintenance for recreation.

H: N/A

EN: \$506,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Includes Shoreline Management Plan, \$40,000; Pollinator Inventory and Monitoring, \$40,000; Cultural Management Plan, \$128,000.

WS: N/A

OTHER INFORMATION: The reservoir provides 110,000 acre-feet of usable flood control storage and controls runoff of tributary drainage area of 275 square-miles. The reservoir protects the Long Tom River Valley and is operated as a part of the coordinated reservoir system to protect the Willamette River.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$262,000. There was an additional \$110,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green Peter and Foster Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Green Peter Dam is 35 miles northeast of Eugene, Oregon, on the middle fork of the Santiam River. Foster Lake is seven miles downstream from Green Peter Lake. The project is multi-purpose with hydropower. It consists of the main dam, Green Peter, a re-regulating dam, Foster, spillways, and recreation sites. Green Peter hydropower facilities consist of two 40-megawatt generators, and Foster has two 10-megawatt units.

FISCAL YEAR 2016 ALLOCATION: - \$47,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provides for routine O&M for navigation, flood risk management, recreation, and environmental stewardship activities.

FISCAL YEAR 2017 ALLOCATION: \$2,497,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M for navigation, flood risk management, recreation, and environmental stewardship activities.

BUDGETED AMOUNT FOR FY 2018: M: \$223,000 O: \$1,892,000 T: \$2,115,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$200,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by Bonneville Power Administration.

EN: \$231,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Includes restoration of wetland prairie, \$13,000, and seasonal ranger for cultural resources, \$34,000.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,684,000 for project features jointly used by multiple business lines: NAV - 0.9%, FRM - 87.4%, and WS - 11.7%. Together, the main dam and re-regulating dam, both with power-generating facilities, have an installed capacity of 100,000 kilowatts. In FY 2013, the two power plants generated 330,000 megawatt-hours of electricity, enough for 15,770 homes. Reservoirs provide storage capacity at full pool of 491,000 acre-feet and control runoff of tributary drainage area of 277 square-miles.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$73,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hills Creek Lake, OR

AUTHORIZATION: The Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Hills Creek Dam is 45-miles southeast of Eugene, OR on the Middle Fork of the Willamette River. The project is multi-purpose with hydropower, and consists of a dam, a spillway, recreation facilities, and a powerhouse with two 15-megawatt generators.

FISCAL YEAR 2016 ALLOCATION: \$302,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provides for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management.

FISCAL YEAR 2017 ALLOCATION: \$3,775,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management. Non-routine activities include spillway gates structural repairs, and a security assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$52,000 O: \$1,125,000 T: \$1,177,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$27,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by Bonneville Power Administration.

EN: \$92,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,058,000 for project features jointly used by multiple business lines: NAV - 1.9%, FRM - 83.5%, and WS - 14.6%. Storage capacity at full pool is 356,000 acre-feet. Project controls runoff of a drainage area of 389 square miles and is an integral unit of the comprehensive plan for development of the water resources of Willamette River Basin. Generation at Hills Creek totaled 132,000 megawatt-hours of electricity in FY 2013, enough for 12,000 homes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$381,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Day Lock and Dam, OR and WA

AUTHORIZATION: Rivers and Harbors and Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The John Day project is on the Columbia River, 112 miles east of Portland, Oregon. The project is multi-purpose with hydropower and is part of the Federal Columbia River Power System. It consists of one dam, spillways, fish passage, a navigation lock, a powerhouse with sixteen 135-megawatt generators, and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$2,031,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M for navigation, flood risk management, recreation facilities, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$4,901,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is providing for routine O&M for navigation, flood risk management, recreation facilities, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$977,000 O: \$4,285,000 T: \$5,262,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$986,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: \$859,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Bonneville Power Administration.

EN: \$403,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Non-routine activities include a 723-acre addition to Willow Creek Wildlife Management Area (\$6,000)

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$3,014,000 for project features jointly used by multiple business lines: NAV - 76.2% and FRM - 23.8%. The locks are part of the Columbia and Snake River navigation system that extends from the mouth of the Columbia River to Lewiston, ID. The project provides 500,000 acre-feet of flood control storage between river-elevations 257 and 268. The powerhouse has bays for 20 generating units of 135-megawatts each, but only 16 units have been installed for a present capacity of 2,160-megawatts. John Day Powerhouse is the second largest in the USACE and generated 9,137,000 megawatt-hours of electricity in FY 2013, enough for 843,000 homes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$164,000. There was an additional \$55,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lookout Point Lake, OR

AUTHORIZATION: Flood Control Acts, 1944, P.L. 75-761, 1950, PL. 81-516

LOCATION AND DESCRIPTION: Lookout Point Dam is 22 miles southeast of Eugene in Lowell, Oregon, on the Middle Fork of the Willamette River. The project is multi-purpose with hydropower consisting of two dams, spillways, and recreation sites. The main dam, Lookout Point, has three 40-megawatt generators, and the downstream, re-regulating dam, Dexter, has one 15-megawatt generator.

FISCAL YEAR 2016 ALLOCATION: \$271,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management.

FISCAL YEAR 2017 ALLOCATION: \$1,937,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used for routine O&M for navigation, flood risk management, recreation facilities, and natural resource management.

BUDGETED AMOUNT FOR FY 2018: M: \$82,000 O: \$1,760,000 T: \$1,842,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$219,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Bonneville Power Administration.

EN: \$155,000 – Funding will provide for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,468,000 for project features jointly used by multiple business lines: NAV - 1.6%, FRM - 95.3%, and WS - 3.1%. The main dam reservoir provides storage of 456,000 acre-feet at full-pool level. The re-regulating dam forms a full pool of 27,500 acre-feet. Reservoirs control runoff of a tributary drainage area of 991 square-miles. Generation from the hydropower facilities totaled 319,000 megawatt-hours for FY 2013, enough for 29,000 homes.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$195,000. There was an additional \$4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lost Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is 27 miles northeast of Medford, OR on the upper Rogue River. The multi-purpose project with hydropower consists of a dam, a spillway, a powerhouse with two 24.5-megawatt generators, and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$375,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of flood risk management and recreation facilities.

FISCAL YEAR 2017 ALLOCATION: \$4,269,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine O&M of flood risk management and recreation facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$353,000 O: \$3,342,000 T: \$3,695,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$363,000 – Funding will provide for routine operation and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Bonneville Power Administration.

EN: \$355,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Includes Cultural Resources and Historical Properties, \$90,000.

WS: \$44,000 – Funding will provide for routine operation and maintenance for water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$2,933,000 for project features jointly used by multiple business lines: FRM - 45.8%, ENS - 22.9%, REC - 24.6%, and WS - 6.7%. The powerhouse with 49-megawatts of capacity generated 251,000 megawatt-hours of electricity in FY 2013, enough for 23,000 homes. Includes Cole River Hatchery Renewable Energy, \$81,000. This project has a regulating outlet with provisions for temperature regulation of releases for fishery enhancement. The reservoir is ten-miles long and provides 315,000 acre-feet of usable storage. The runoff from a drainage area of 674 square-miles is controlled by the project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: McNary Lock and Dam, OR & WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Central Oregon on the Columbia River near Umatilla, Oregon. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with a capacity of 980 Megawatts, a navigation lock with a vertical lift of 75 feet, high-use waterway, two fish ladders, a system of levees and pumping plants, a reservoir that has a water surface area of 38,800 acres, 16,908 acres of land that provides recreation facilities and wildlife mitigation habitat, juvenile fish holding, loading, and bypass facilities.

FISCAL YEAR 2016 ALLOCATION: \$5,890,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used to meet the operations and maintenance requirements for the navigation, cultural resources, fish and wildlife, other joint, security and recreation. Non-routine activities included small capital improvements and to rehabilitate nine of the fifteen levee pumping plants. Also the design phase of the major crack and structural repairs for the 105' navlock downstream miter gate.

FISCAL YEAR 2017 ALLOCATION: \$8,309,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical lock operations to ensure continued safe and reliable operations to avoid unscheduled navigation lock outages. Also includes the navigation component for the operations and maintenance of the joint features of the project. Non-routine activities will include small capital improvements and the interim construction phase of the major crack and structural repairs for the 105' navlock downstream miter gate. Additional funds are provided for curation of Kennewick Man at Burke Museum (\$57,000).

BUDGETED AMOUNT FOR FY 2018: M: \$9,569,000 **O:** \$3,473,000 **T:** \$13,042,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,120,000 – Funding provides for routine Operations and Maintenance (O&M) for navigation. Non-routine work packages will be funded for \$500,000 to perform continuing interim crack and structural repairs to 105', failing navlock miter gate and a \$2,000,000 work package to replace tainter valves 1 and 3 that were damaged during the unusually extreme weather conditions in January 2017. Also, additional funds are provided for navigation lock Derrick crane replacement (\$500,000) and replace and upgrade navigation lock electrical and controls (\$800,000).

FRM: N/A

RC: \$1,589,000– Funding provides for routine Operations and Maintenance (O&M) for recreation.

H: Routine and non-routine operation and maintenance for hydropower are direct funded by the Power Marketing Agency.

EN: \$338,000 – Funding provides for routine Operations and Maintenance (O&M) for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$4,995,000 for project features jointly used by multiple business lines: NAV - 100%. Non-routine funding of \$1,955,000 will be for joint-Division: Northwestern District: Walla Walla McNary Lock and Dam, OR & WA

use work packages for critical seepage measurement and control and critical projects to replace three fish pumps that supply attraction water to adult fish ladder, continue to rehabilitate nine of the fifteen levee pumping plants and the procurement and installation of spillway gates and hoists. Traffic through the navigation lock consists of grain, petroleum products, fertilized, wood products and miscellaneous cargo that amount to more than 5.3 million tons in 2008. There are 16,908 acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,036,000. There was an additional \$23,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Umpqua River, OR

AUTHORIZATION: Rivers and Harbor Act of: 22 Sep 1922, (construct N. jetty), 1935 (S. jetty and 26'channel) P.L. 75-685

LOCATION AND DESCRIPTION: Umpqua is located on the Oregon Coast about 125 miles south of the Columbia River at Reedsport, Douglas County, Oregon. The existing project includes: Two stone jetties, 26-foot entrance channel, 22-foot deep river channel for 12 miles, and boat basin channel into Winchester Bay.

FISCAL YEAR 2016 ALLOCATION: \$1,092,000

DESCRIPTIONS OF WORK FOR FY 2016: Critical minimum dredging.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$921,000 O: \$0 T: \$921,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$921,000 – Critical minimum dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Critical harbor of refuge.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Willamette River at Willamette Falls, OR

AUTHORIZATION: Rivers and Harbors Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Willamette Falls Locks is an inoperable, multiple-lift navigation lock located on the Willamette River in West Linn, Oregon.

FISCAL YEAR 2016 ALLOCATION: \$127,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for any critical caretaker actions necessary to maintain this closed project in a safe condition.

FISCAL YEAR 2017 ALLOCATION: \$63,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is providing for any critical caretaker actions necessary to maintain this closed project in a safe condition.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$64,000 T: \$64,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$64,000 – Funding will provide for caretaker functions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project includes four locks, a canal basin, and an extra guard lock used to prevent flooding when river levels are high. The system acts as a fluid staircase between the upper and lower reaches of the Willamette River. Due to structural/safety concerns, the project is inoperable and maintained in a caretaker status.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Willamette River Bank Protection, OR

AUTHORIZATION: Flood Control Acts of 1936 (authorizes bank protection and channel clearing), 1938 (PL. 75-685, added flood protection), 1950 (PL. 81-519, added an additional 77 locations)

LOCATION AND DESCRIPTION: This Federal project provides 90 miles of bank protection, drift embankments, drift barriers, and channel improvements at 223 locations along the Willamette River and its tributaries from river-mile 25 to 225.

FISCAL YEAR 2016 ALLOCATION: \$198,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided to identify potential restoration sites associated with existing Corps revetments in the Willamette Basin; perform site inspections; and maintain the inventory and inspection database.

FISCAL YEAR 2017 ALLOCATION: \$200,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is provided to identify potential restoration sites associated with existing Corps revetments in the Willamette Basin; perform site inspections; and maintain the inventory and inspection database.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$200,000 T: \$200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$200,000 - Funding will provide for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The program consists of 223 federally constructed projects that were authorized to clear andrevet river banks, construct bulkheads, and minor channel improvements. The project also maintains existing works constructed under the 1936 and 1938 Flood Control Acts for control of floods and preventing erosion at various locations along the Willamette River and tributaries.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$240,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Willow Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: The project is on Willow Creek at Heppner, Oregon. It is authorized for flood reduction. It consists of a roller-compacted, concrete dam, an uncontrolled spillway, outlet works, diversion works, and a reservoir.

FISCAL YEAR 2016 ALLOCATION: \$890,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M for flood risk management, and environmental stewardship.

FISCAL YEAR 2017 ALLOCATION: \$977,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is providing for routine O&M for flood risk management, and environmental stewardship.

BUDGETED AMOUNT FOR FY 2018: M: \$185,000 O: \$1,114,000 T: \$1,299,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,219,000 – Funding will provide for routine operation and maintenance for flood risk management. Includes Repair and Upgrade of Automated Monitoring System, \$440,000.

RC: N/A

H: N/A

EN: \$80,000 – Funding will provide for routine operation and maintenance for environmental stewardship. Non-routine activities include boundary inspection and marking (\$62,000).

WS: N/A

OTHER INFORMATION: Project provides flood protection to the City of Heppner and downstream areas by controlling runoff from a drainage area of 96-square miles. Gross storage capacity of the project is 13,250 acre-feet, consisting of 7,750 acre-feet for exclusive flood control, 1,750 acre-feet for joint flood control and irrigation, 1,750 acre-feet exclusive irrigation, and 2,000 acre-feet for fish, wildlife, recreation, sediment accumulation, and aesthetics.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$138,000. There was an additional \$5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yaquina Bay and Harbor, OR

AUTHORIZATION: Act to Improve Rivers and Harbors Act of 1880 (21 Stat. 180), River and Harbor Acts of 1919 (construct jetties, 40 Stat. 1275), 1945 (26-foot channel, P.L. 79-14), 1946 (construct boat basin, P.L. 79-525), 1958 (deepen 40-foot entrance, 30-foot river channel, P.L. 85-500) 1960 (boat basin south Shore, P.L. 86-645)

LOCATION AND DESCRIPTION: Yaquina Bay and Harbor is a low-use, deep-draft Federal project on the Oregon Coast 110 miles south of the Columbia River in Newport. This deep-draft project has two stone jetties, a small boat access channel, and the South Beach Marina.

FISCAL YEAR 2016 ALLOCATION: \$2,722,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for routine annual maintenance dredging.

FISCAL YEAR 2017 ALLOCATION: \$3,699,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used for routine annual maintenance dredging and additional funds are provided for maintenance dredging of South Coast Pipeline, South Beach Marina (\$893,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,031,000 O: \$65,000 T: \$3,096,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,096,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Yaquina Bay is a critical harbor of refuge and a permanent US Coast Guard (USCG) station with 329 Search and Rescue cases in 2012. It is a priority location for USCG 13th District, National Oceanic and Atmospheric Administration Pacific Research fleet, and Oregon State University Marine Science center. In 2013 there were 65,000 tons of fish landed, valued at \$54.7 million. Yaquina Bay ranked 17th among major US ports by pounds-landed in 2012. Estimates are for over ten cargo ships annually and an associated revenue of \$1.7- to \$2.6-million per year beginning in early 2015. Extremely dangerous entrance conditions exist when the harbor and entrance depth is less than authorized. USCG states that their operations are affected unless these hazardous conditions are mitigated.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$46,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

PENNSYLVANIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Allegheny River, PA

AUTHORIZATION: Rivers and Harbors Act 1912 and 1935; Emergency Relief Administration program 1935

LOCATION AND DESCRIPTION: The project consists of the navigable portion of the Allegheny River, a low-use waterway, that extends northeastward 72 miles from its mouth at the Point in Pittsburgh to East Brady, PA. Commercial and recreational navigation is provided from eight locks and dams that are Locks and Dams 2 thru 9 within the 72-mile reach of river, including the CW Bill Young (CWBY) Lock and Dam (formerly Lock and Dam 3).

FISCAL YEAR 2016 ALLOCATION: \$5,264,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds were used to award contracts for minimum dredging to maintain the navigation channel, to replace outdated programmable logic controller equipment and to develop plans and specifications for vertical wall repairs at Lock 2 and CW Bill Young.

FISCAL YEAR 2017 ALLOCATION: \$5,159,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M of eight navigation locks and dams that provide approximately 72 miles of navigable river, including dredging to maintain the navigation channel. Additional funds are being used to install prefabricated walkways on the upper and lower guidewall (\$150,000).

BUDGETED AMOUNT FOR FY 2018: M: \$7,189,000 O: \$4,854,000 T: \$12,043,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$12,043,000 – Funds will provide for routine O&M of eight navigation locks and dams that provide approximately 72 miles of navigable river, including dredging to maintain the navigation channel, replacement of the timber seals on the miter and quoin blocks at L/D 4, fabricate and install safety waterway signs at L/D 6 and 7 (\$320,000), and plan and specifications for waterway safety signs at L/D 2 (\$25,000) and CW Bill Young (\$25,000), and perform concrete repairs to the vertical land wall at Lock and Dam #2 (\$2,890,000).

FRM: N/A

RC: N/A

HYD: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Allegheny River navigation system serviced an annual average of 1,515,235 tons of cargo from 2011 to 2015. The Allegheny River Locks have various operating hours dictated by commercial navigation traffic levels. Lock 2 and CW Bill Young will be operated twenty-four hours a day and seven days a week. Locks 4 and 5 will be operated 7:00 am to 11:00 pm, seven days per week. Locks 6, 7, 8, and 9 will only be available for commercial navigation lockages by appointment.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$315,000. There was an additional \$0 of unobligated funds that are committed within in the Corps for scheduled ongoing

Division: Great Lakes and Ohio River

District: Pittsburgh

Allegheny River, PA

requirements in FY2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alvin R. Bush Dam, PA

AUTHORIZATION: Flood Control Act of 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: Alvin R. Bush Dam is located on Kettle Creek approximately 8.4 miles above the mouth and about 15 miles above Renovo, Pennsylvania, in Clinton County. The earthen- and rock-fill dam has a maximum height of 165 feet above the streambed and a top length of 1,350 feet. The outlet works include a horseshoe-shaped tunnel, 13 feet in diameter, with 3 service gates. The spillway is uncontrolled and located in rock adjacent to the right abutment. The reservoir has a storage capacity of 75,000 acre-feet at spillway crest, and the pool at this elevation extends upstream for a distance approximately 8.8 miles. The permanent pool covers 160 acres and extends for 2.2 miles. The project controls a drainage area of 226 square-miles or about 92-percent of the Kettle Creek watershed.

FISCAL YEAR 2016 ALLOCATION: \$704,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used for flood risk management operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$627,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding are being used to provide for flood risk management operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

BUDGETED AMOUNT FOR FY 2018: M: \$248,000 O: \$722,000 T: \$970,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$913,000 - Funding will provide for flood risk management operation and maintenance and spillway channel wall rock erosion (\$83,000).

RC: \$18,000 - Funding will provide for coordination with the recreation leasee.

H: N/A

EN: \$39,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The recreation facilities are operated and maintained by the Commonwealth of Pennsylvania, Department of Conservation and Natural Resources as Kettle Creek State Park under a real estate agreement. Operation of the project provides benefit to a population at risk of 125,000. Flood damages prevented through FY 2014 are \$272 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$96,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Aylesworth Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874) and described in Senate Document 141, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Aylesworth Creek Lake is in Archbald Borough, Pennsylvania, on Aylesworth Creek, one mile above its confluence with the Lackawanna River. The earthen- and rock-fill dam has a maximum height above the streambed of 90 feet and a top length of 1,270 feet. An 80-foot wide spillway, having a discharge capacity of 10,000 cubic-feet-per-second, was cut in the south bank. The outlet conduit is uncontrolled and consists of a 490-foot long, 36-inch diameter vitrified clay pipe encased in reinforced concrete. An auxiliary dike was required on the north bank of Aylesworth Creek to prevent flow from the lake into the Mayfield Creek drainage basin during high lake elevations. The dike is 410-feet long and has a maximum height of 28 feet. The reservoir extends about 4,600-feet upstream and inundates 87 acres at spillway crest with an elevation of 1,150 feet above mean sea level.

FISCAL YEAR 2016 ALLOCATION: \$342,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$278,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

BUDGETED AMOUNT FOR FY 2018: M: \$55,000 O: \$569,000 T: \$624,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$589,000 - Funding will provide for routine operation and maintenance.

RC: \$21,000 - Funding will provide for coordination with the recreation leasee.

H: N/A

EN: \$14,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: Lackawanna County operates and maintains Aylesworth Park under a real estate agreement. Operation of the project provides benefit to a population at risk of 280,000. Flood damages prevented are estimated through FY 2014 at \$9 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$101,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Beltzville Lake, PA

AUTHORIZATION: House Document 622, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Pohopoco Creek, a tributary of the Lehigh River, about 4.5 miles from the confluence with the Lehigh River and 4 miles east of Lehigh, Pennsylvania. Project purposes are flood control, recreation, and water supply. The project consists of a flood control, zoned earthen-fill embankment, a controlled outlet works and an open channel emergency spillway. The controlled reservoir capacity is 68,250 acre-feet as a spillway crest, with 1,390 acre-feet of inactive storage, 41,200 acre-feet for water supply, water quality control and recreation. The Commonwealth of Pennsylvania manages, under leases, the recreation facilities constructed by the Corps and the remainder of the project lands. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure.

FISCAL YEAR 2016 ALLOCATION: \$1,103,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds are being used for routine operation and maintenance, an intermediate dam inspection, removal of hazardous materials from 2 structures, an arc flash study, real estate actions, water quality and water control analyses.

FISCAL YEAR FY 2017 ALLOCATION: \$1,410,000

DESCRIPTIONS OF WORK FOR 2017: Funds are being used for routine operation and maintenance, real estate and water control and water quality data collection and analyses, required dam safety inspections including inspection of the control structures and bridge inspections, a periodic positional survey and performance of a CRM-D Assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$75,000 **O:** \$1,230,000 **T:** \$1,305,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,285,000 - Funds will be used for routine operations and maintenance of the dam and related facilities. Other specific work includes maintenance of project buildings, grounds and equipment; continuing evaluation data gathering, dam safety efforts, required inspections, real estate, water control and water quality data collection and analysis.

RC: N/A

H: N/A

EN: \$20,000 - Funds will be used for stewardship activities at the project. This includes evaluation of improving fee owned land from degraded to transitioning status, review of the status of invasive plant species, threatened and endangered species, and continuation of good stewardship practices. It also includes continued verification of all data related to inventory and reporting requirements.

WS: N/A

OTHER INFORMATION: None.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$336,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Philadelphia

Beltzville Lake, PA

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Blue Marsh Lake, Pennsylvania

AUTHORIZATION: House Document 522, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Tulpehocken Creek, a tributary of the Schuylkill River, about 6 miles northwest of Reading, Pennsylvania. The project consists of an earthen- and rock-fill dam with a spillway, a low level outlet works, three high level saddle dikes located in low points in the reservoir rim, and a levee and interior drainage system to protect the settlement of Bernville, Pennsylvania northwest of the Blue Marsh Dam.

FISCAL YEAR 2016 ALLOCATION: \$2,747,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for routine operation and maintenance, the recreation program at the project, real estate actions, repair of the water supply valve, water control and water quality analyses.

FISCAL YEAR 2017 ALLOCATION: \$2,981,000

DESCRIPTIONS OF WORK FOR 2017: Funds are being used for routine operation and maintenance of dam and facilities, the recreation program at the project, real estate actions, water control and water quality analyses, periodic and required dam safety inspections to include inspection of the control structures and bridges, a periodic positional survey and performance of a CRM-D Assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$434,000 O: \$2,656,000 T: \$3,090,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,010,000 – Funds will be used for routine operation and maintenance. Other specific work includes continuing evaluation gathering, dam safety efforts, required inspections, real estate, water-control and water-quality data collection and analysis.

RC: \$1,700,000 - Funds will be used for operations and maintenance of the recreation feature as well as to replace sewage pumping building and system.

H: N/A

EN: \$380,000 – Funds will be used for planting native seedlings, creating 25 acre shrub wetland area, plant/maintain 20 acres of food plots, manage 100 acres of upland native grass, coordination of 2800 acres leased to state conservation agency, continue efforts to detect, control and reduce invasive species on 3952 acres of fee lands, inspect 16 miles of boundary line adjacent to residential properties to locate and resolve encroachment issues and continue verification of inventoried resource acreage and for maintenance of natural resource facilities.

WS: N/A

OTHER INFORMATION: The recreation program at the project attracts almost 900,000 visitors a year. The project provides an environmental benefit by protecting 6,162 acres of land and 1,150 acres of water. Over 4,000 educational contacts are made each year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$587,000. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Philadelphia

Blue Marsh Lake, PA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conemaugh River Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Conemaugh Dam and reservoir is located on the Conemaugh River in Indiana and Westmoreland Counties, PA. The dam is located 7.5 miles upstream from Saltsburg, where the Conemaugh River and Loyalhanna Creek join to form the Kiskiminetas River. Conemaugh River Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,334,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds will be used for a sedimentation evaluation study to determine rates and the volume of sediment and its potential impact on facility operation.

FISCAL YEAR 2017 ALLOCATION: \$1,346,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M of the dam.

BUDGETED AMOUNT FOR FY 2018: M: \$211,000 O: \$1,134,000 T: \$1,345,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,159,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$76,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$110,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Conemaugh River Lake is estimated to have prevented more than \$2,233,194,000 in damages since its completion in 1953. The average annual recreational visits from 2009 through 2013 were 83,220.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cowanesque Lake, PA

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500), 85th Congress and described in House Document 394, 84th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Cowanesque Lake is located in Tioga County of Pennsylvania, on the Cowanesque River, 2 miles upstream of the confluence of the Cowanesque River with the Tioga River at Lawrenceville.

FISCAL YEAR 2016 ALLOCATION: \$1,877,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was provided for routine operation and maintenance and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$2,113,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance and natural resources protection and conservation, and survey boundary of flowage easements.

BUDGETED AMOUNT FOR FY 2018: M: \$1,453,000 O: \$1,503,000 T: \$2,956,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,925,000 - Funding will provide for routine operation and maintenance.

RC: \$768,000 - Funding will provide for routine operation and maintenance.

EN: \$190,000 - Funding will provide for natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

H: N/A

WS: \$73,000 - Funding will provide for water supply coordination.

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 295,000. Flood damages prevented are estimated through FY 2014 at \$280 million. A conservation lake is maintained at elevation 1080 (National Geodetic Vertical Datum) having a surface area of 1090 acres. Seventy-nine percent of the conservation storage space is allocated for water supply storage owned by the Susquehanna River Basin Commission.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$237,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Crooked Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Crooked Creek Dam is located on Crooked Creek, in Armstrong County, PA. The dam is located 7.2 miles above the junction of the creek with the Allegheny River near Ford City. Crooked Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,714,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds will be used for a sedimentation evaluation study to determine rates and the volume of sediment and its potential impact on facility operation.

FISCAL YEAR 2017 ALLOCATION: \$1,900,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$345,000 O: \$1,432,000 T: \$1,777,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,362,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$365,000 – Funding provides for routine Operation and Maintenance for Recreation

H: N/A

EN: \$50,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Crooked Creek Lake estimated to have prevented more than \$549,643,000 in damages since its completion in 1940. The average annual recreational visits from 2009 through 2013 was 319,548.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$15,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Curwensville Lake, PA

AUTHORIZATION: Flood Control Act of 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: Curwensville Dam is located on the West Branch Susquehanna River, 0.6 miles upstream from Curwensville, Pennsylvania. The dam is an earthen-fill embankment 2,850 feet in length with a spillway and a gate-controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$813,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, coordination with the recreation leasee, natural resources protection and conservation, and water supply coordination.

FISCAL YEAR 2017 ALLOCATION: \$876,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, coordination with the recreation leasee, natural resources protection and conservation, and water supply coordination.

BUDGETED AMOUNT FOR FY 2018: M: \$155,000 O: \$745,000 T: \$900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$768,000 - Funding will provide for routine operation and maintenance.

RC: \$45,000 - Funding will provide for routine coordination with the recreation leasee.

H: N/A

EN: \$69,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: \$18,000 - Funding will provide for water supply coordination.

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 130,000. Flood damages prevented are estimated through FY 2014 at \$230 million. Fifty-seven percent of the conservation storage space is allocated for water supply storage, owned by the Susquehanna River Basin Commission. Clearfield County operates and maintains the recreation area under a real estate agreement.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$92,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Delaware River, Philadelphia to Trenton, PA & NJ

AUTHORIZATION: House Document 71-3 (1930), House Document 83-358 (1954) and Senate Document 95-88 (1976).

LOCATION AND DESCRIPTION: The waterway extends from Allegheny Avenue in Philadelphia, Pennsylvania to the Penn Central Railroad Bridge at Trenton, New Jersey, and is classified as a moderate-use, deep-draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$5,299,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform channel surveys, contract maintenance dredging of the Fairless Turning Basin and maintenance dredging utilizing the Government Dredge McFarland for 30 training days, dredged material containment facility maintenance activities, and environmental support services.

FISCAL YEAR 2017 ALLOCATION: \$11,985,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform channel condition surveys, maintenance dredging of the lower reach of the 40-foot channel utilizing the Government dredge McFarland for 30 training days, material containment facility maintenance activities, maintenance dredging of the upper reach of 40-foot channel including Fairless Turning Basin and environmental support services.

BUDGETED AMOUNT FOR FY 2018: M: \$3,980,000 O: \$1,000,000 T: \$4,980,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$4,980,000 - Funds will be used to perform channel condition surveys, dredged material containment facility maintenance activities and minimum environmental support services.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Approximately 700 vessels transit this moderate use, deep draft navigation project annually carrying close to 8.5 million tons of various commodities such as steel, petroleum, chemicals, gypsum, fruit, and coal. Several major chemical companies, a Hess oil refinery, the National Gypsum Plant and two major deep draft Marine Terminals (Tioga Terminal and the Port of Bucks County) are based along this waterway. The Port of Bucks County generates a total of \$1.4 billion in total economic activity in the region.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,964,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Branch Clarion River Lake, PA

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: East Branch Dam is on the East Branch of the Clarion River, 7.5 miles upstream from its junction with its West Branch at Johnsonburg, PA. The reservoir is located entirely in Elk County PA. East Branch Clarion River Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,193,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,408,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project. No major maintenance is scheduled for FY 2017.

BUDGETED AMOUNT FOR FY 2018: M: \$240,000 O: \$1,159,000 T: \$1,399,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,181,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$200,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$18,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: East Branch Clarion River Lake is estimated to have prevented more than \$91,262,000 in damages since its completion in 1951. The average annual recreational visits from 2009 through 2013 was over 216,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$51,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Foster J. Sayers Dam, PA

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Foster Joseph Sayers Dam is located on Bald Eagle Creek one mile upstream from Blanchard, New York and 14 miles above the confluence with the West Branch of the Susquehanna River at Lock Haven, Pennsylvania. The project consists of an earthen-fill dam with a spillway and gated outlet.

FISCAL YEAR 2016 ALLOCATION: \$1,132,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

FISCAL YEAR 2017 ALLOCATION: \$1,148,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, coordination with the recreation leasee, and natural resources protection and conservation.

BUDGETED AMOUNT FOR FY 2018: M: \$1,717,000 O: \$820,000 T: \$2,537,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,379,000 - Funding will provide for routine operation and maintenance. In addition, ERDC modeling to prevent severe scouring at outlet tunnel of stilling basin (\$220,000).

RC: \$21,000 - Funding will provide for coordination with the recreation leasee.

H: N/A

EN: \$137,000 - Funding will provide natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The Foster Joseph Sayers Dam reservoir has a storage capacity of 99,000 acre-feet and is designed to reduce flood heights on Bald Eagle Creek below the dam and along the West Branch of the Susquehanna River below Lock Haven, Pennsylvania. Operation of the project provides benefit to a population at risk of 125,000. Flood damages prevented are estimated through FY 2014 at \$210 million. The project maintains a pool of 1,730 acres during the recreation season. The Commonwealth of Pennsylvania, Department of Conservation and Natural Resources operates and maintains the recreation area, Bald Eagle State Park, under a real estate lease.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$125,000. There was an additional \$138,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Francis E. Walter Dam & Reservoir, PA

AUTHORIZATION: Project authorized by House Document 79-587 of 1946, modified by House Document 87-522 of 1962

LOCATION AND DESCRIPTION: The project is on the Lehigh River, just below the confluence of Bear Creek with the Lehigh River, six miles above White Haven, Pennsylvania, and 77 miles above the junction of the Lehigh and Delaware Rivers at Easton, Pennsylvania. The project consists of an earthen- and rock-filled dam with a concrete spillway and a gate controlled outlet.

FISCAL YEAR 2016 ALLOCATION: 1,080,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance, real estate actions, water control and water quality data collection and analyses, dam safety oversight and analyses. Additionally, funds were used to paint the service bridge to the tower, electrical upgrades in the tower and construction of an abutment access road per dam safety recommendations.

FISCAL YEAR 2017 ALLOCATION: \$1,140,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance, real estate, water control and water quality data collection and analyses, required periodic dam safety inspections including the control structures and bridge, a periodic positional survey and performance of a CRM-D Assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$95,000 O: \$780,000 T: \$875,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$825,000 – Funds will be used for routine operation and maintenance which includes the operation of buildings, the dam and related structures, grounds and equipment, management of public-use areas such as access roads, parking lots, picnic areas and an overlook area. Other specific work includes continuing evaluation gathering, dam safety, real estate, required inspections, water control data collection and analysis, water quality data collection.

RC: N/A

H: N/A

EN: \$50,000 - Funds will be used for continued restoration work on 15 acres of quarried lands including planting grasses, native shrubs, and trees.

WS: N/A

OTHER INFORMATION: Project purposes are flood control and recreation. The reservoir capacity is 108,000 acre-feet for flood management with a conservation pool of 2,000 acre-feet capacity. Recreation facilities also include a boat launch area, hiking trails and provision for fishing and hunting. Whitewater rafting and fishing industries in the area utilize dam releases.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$448,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Philadelphia Francis E. Walter Dam & Reservoir, PA

APPROPRIATION: Operation and Maintenance

PROJECT NAME: General Edgar Jadwin Dam and Reservoir, PA

AUTHORIZATION: House Document 80-113 of 1948

LOCATION AND DESCRIPTION: The project is located in Wayne County, Pennsylvania, along the Dyberry Creek, a tributary of the Lackawaxen River, about three miles upstream of Honesdale, Pennsylvania, and 30 miles above the junction of the Lackawaxen and Delaware Rivers. The facility consists of an earthen- and rock-fill dam with a low-level un-gated outlet works and an emergency spillway.

FISCAL YEAR 2016 ALLOCATION: \$381,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance, water control data collection and analysis, real estate, continuing evaluation gathering and dam safety efforts. A periodic dam inspection and tabletop emergency exercise were also conducted.

FISCAL YEAR 2017 ALLOCATION: \$380,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance, water control data collection and analysis, real estate, continuing evaluation gathering, dam safety efforts, periodic and required dam safety inspections and a CRM-D assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$60,000 O: \$335,000 T: \$395,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$395,000 – Funds will be used for routine operation and maintenance, water control data collection and analysis, real estate, continuing evaluation gathering and dam safety efforts.

RC: NA

H: NA

EN: NA

WS: NA

OTHER INFORMATION: The project was completed and placed into service in 1960. Reservoir capacity is 24,500 acre-feet for flood control, with no conservation pool. There is no permanent pool and no provisions have been made for recreational use, however, low impact opportunities such as hunting, stream fishing, hiking and bird watching are enjoyed by visitors to the project lands.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$213,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Johnstown, PA

AUTHORIZATION: Flood Control Acts of 1936 (P.L. 74-738) and 1937

LOCATION AND DESCRIPTION: The project is located in Pennsylvania 58 miles east of Pittsburgh in Cambria County along the Conemaugh River, Little Conemaugh River, and Stonycreek River. Major rehabilitation of the nine-mile-long local flood protection project was authorized in 1991.

FISCAL YEAR 2016 ALLOCATION: \$61,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$46,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds will provide for routine operation and maintenance.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$46,000 T: \$46,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$ 46,000 – Funding provides for routine Inspections for the dam.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project is estimated to have prevented more than \$829,005,000 in damages since its completion in 1939.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$100,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kinzua Dam and Allegheny Reservoir, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761) and 1941

LOCATION AND DESCRIPTION: Kinzua Dam is located on the Allegheny River in Warren County, PA about 198 miles above the mouth of the river at Pittsburgh. Allegheny Reservoir is located in Warren and McKean Counties and Cattaraugus County, NY. Kinzua Dam and Allegheny Reservoir is a multi-purpose reservoir with nine boat ramps, numerous campgrounds, extensive trails, picnic areas, and a visitor information center.

FISCAL YEAR 2016 ALLOCATION: \$1,165,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$ 1,695,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$233,000 O: \$1,537,000 T: \$1,770,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,444,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$256,000 – Funding provides for routine Operations and Maintenance for Recreation

H: N/A

EN: \$70,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Kinzua Dam and Allegheny Reservoir is estimated to have prevented more than \$1,270,394,000 in damages since its completion in 1965. The project also houses a 400 megawatt hydropower plant operated by the First Energy Corporation. Flow regulation helps to maintain navigable depths for commercial traffic on the Allegheny and upper Ohio Rivers. The average annual recreational visits from 2009 through 2013 was 280,578.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$85,000.

Division: Great Lakes and Ohio River District: Pittsburgh Kinzua Dam and Allegheny Reservoir, PA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Loyalhanna Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Loyalhanna Dam is on Loyalhanna Creek, 4.75 miles above its junction with the Conemaugh River at Saltsburg, PA. The multi-purpose reservoir is located entirely in Westmoreland County.

FISCAL YEAR 2016 ALLOCATION: \$1,665,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,595,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project plus resolution of real estate encroachments (\$7,000)

BUDGETED AMOUNT FOR FY 2018: M: \$3,194,000 O: \$1,455,000 T: \$4,649,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,327,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$147,000 – Funding provides for routine Operation and Maintenance for Recreation

H: N/A

EN: \$175,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship and shoreline management activities (\$75,000).

WS: N/A

OTHER INFORMATION: Loyalhanna is estimated to have prevented more than \$531,149,000 in damages since its completion in 1943. The average annual recreational visits from 2009 through 2013 was 190,040.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mahoning Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mahoning Dam is located on Mahoning Creek in Armstrong County. The dam is located 22.9 miles upstream from the junction of the creek and the Allegheny River. The reservoir it creates is in Armstrong, Indiana and Jefferson Counties. Mahoning Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,295,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operations and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,449,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operations and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$196,000 O: \$1,095,000 T: \$1,291,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,210,000 – Funding provides for routine Operations and Maintenance for the dam.

RC: \$65,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$16,000 – Funding provides for routine Operations and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Mahoning Creek Lake is estimated to have prevented more than \$687,853,000 in damages since its completion in 1941. The average annual recreational visits from 2009 through 2013 was 94,880.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$53,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Monongahela River, PA and WV

AUTHORIZATION: Rivers and Harbors Act of 1902, 1905, 1909, 1922, 1930, and 1950; Water Resources Development Act of 1986 and 1992; and Supplemental Appropriations Act of 1985

LOCATION AND DESCRIPTION: The project consists of the navigable portion of the Monongahela River for the entire 128.7 miles of the river, from just above Fairmont, WV to The Point at Pittsburgh, PA. The Federal project includes nine navigation locks and dams; they are Braddock, Grays Landing, Hildebrand, Maxwell, Morgantown, Opekiska, Point Marion, and Locks and Dams Numbers 3 and 4.

FISCAL YEAR 2016 ALLOCATION: \$15,751,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine O&M of nine navigation locks and dams. Non-routine maintenance funds were used for the critical dredging at lock chambers and approaches and for the repair of the corner protection and concrete at Charleroi L&D (L&D Number 4).

FISCAL YEAR 2017 ALLOCATION: \$ 17,905,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M of nine navigation locks and dams. Dredging and debris removal are performed annually at lock chambers and lock approaches. Non-routine maintenance funds will be used to replace ladder rungs and repair concrete in monolith joints in main chamber at Charleroi L&D (L&D Number 4), remove upstream gates, replace pintle balls, renovate sector gates at Braddock L&D and concrete repairs to middle wall lock chamber vertical surfaces at Braddock L&D.

BUDGETED AMOUNT FOR FY 2018: M: \$7,016,000 O: \$9,743,000 T: \$16,759,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$16,759,000 – Funds will provide for routine O&M of nine navigation locks and dams that provide approximately 128 miles of navigable river, including dredging to maintain the navigation channel and repairs to ladder rungs and concrete in monolith joints at Charleroi. Additional funds are provided to prepare Braddock plans and specifications to replace interlocks and four-way hydraulic valves (\$105,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: An annual average of 19,342,237 tons of cargo traffic was serviced by the Monongahela navigation system from 2011 to 2015. The locks between Braddock and Point Marion are operated continuously. Morgantown lock is open one shift, 7 days a week. Hildebrand and Opekiska Locks will only be available for commercial navigation lockages by appointment.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$447,000. There was an additional \$171,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Great Lakes and Ohio River

District: Pittsburgh

Monongahela River, PA & WV

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks and Dams, PA, OH, and WV

AUTHORIZATION: Rivers and Harbors Act of 1909 and 1918

LOCATION AND DESCRIPTION: The Federal project consists of the navigable portion of the Ohio River from The Point at Pittsburgh, 127.2 miles downstream, to New Martinsville, WV. Commercial and recreational navigation is provided for by six locks and dams: Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

FISCAL YEAR 2016 ALLOCATION: \$54,070,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine O&M. Non-routine maintenance funds were used for emergency repairs of Montgomery L&D lift gates, retrofitting the main chamber upstream closure structure with bulkhead slots to replace boule dam at Montgomery L&D, repairing the auxiliary lock chamber lower miter gate sill at Montgomery, retrofitting the main chamber downstream closure structure with bulkhead slots to replace poiree dam at Emsworth L&D, awarding construction contracts to stabilize the lower and upper guide walls at Dashields L&D, developing plans and specifications for upper guide wall stabilization repairs at Dashields L&D, awarding a dam gate fabrication contract at Montgomery L&D and replacing an existing programmable logic controller and outdated network architecture at Montgomery L&D.

FISCAL YEAR 2017 ALLOCATION: \$33,872,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M. Non-routine maintenance funds will be used to retrofit main chamber downstream closure structure to replace poiree dam at Montgomery L&D, fabricate floating mooring bits and replace hydraulic gate cylinders in auxiliary chamber at New Cumberland L&D and modify poiree dam sill and fabricate second coffer box with modified bottom at Emsworth L&D. Additional funds are provided for plans and specifications for new miter gate controls at Emsworth (\$50,000), plans and specifications for middle wall crack stabilization at Montgomery (\$75,000), land wall stability analysis at Emsworth (\$50,000), renovate the lock hydraulic system at New Cumberland (\$300,000), and plans and specifications for miter gates at New Cumberland (\$200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$25,656,000 **O:** \$13,855,000 **T:** \$39,511,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$39,511,000 – Funds will be used for routine operation and maintenance activities in support of navigation. Non-routine activities include Montgomery monolith crack stabilization (\$4,775,000), repair Dashields downstream landwall miter gate anchorage (\$382,000), dewater the Deashields main lock chamber (\$3,816,000), repair Pike Island crane rail clips (\$286,000), install bulkhead slots at Montgomery to replace boule and poiree dams (\$4,125,000), fabricate last two lift gates for Montgomery (\$4,548,000), and fabricate New Cumberland floating mooring bits and replace hydraulic gate cylinders in the auxillary chamber (\$3,061,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

Division: Great Lakes and Ohio River

District: Pittsburgh

Ohio River Locks and Dams,
PA, OH, & WV

WS: N/A

OTHER INFORMATION: Emsworth is rated Dam Safety Action Class (DSAC) I with very high probability of failure, and Montgomery Dam is rated DSAC II with a high probability of failure. The six locks and dam structures on the Ohio River have an average age of 62 years (82 years for the upper three locks and 43 years for the lower three locks). This project funds the O&M of the three oldest structures on the mainstem of the Ohio River. These structures are currently being studied for major capital improvements in the Upper Ohio Navigation Study. The navigation system serviced an annual average of 60,601,000 tons of cargo from 2011 to 2015.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,887,000. There was an additional \$595,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$400,000.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Work, PA, OH, & WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: The project is located along the Ohio River from the confluence of the Monongahela and Allegheny Rivers in Pittsburgh to river mile 127.2 at New Martinsville, WV. The Ohio River Open Channel has an authorized depth of nine feet. The project encompasses six locks and dams: Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

FISCAL YEAR 2016 ALLOCATION: \$792,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds will provide for routine O&M and dredging to maintain an authorized navigation channel.

FISCAL YEAR 2017 ALLOCATION: \$800,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M and dredging to maintain an authorized navigation channel.

BUDGETED AMOUNT FOR FY 2018: M: \$800,000 O: T: \$800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$800,000 – Funds will provide for routine O&M and dredging to maintain an authorized navigation channel.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The annual average tonnage of commodities transported on this waterway over the last five years is 213,830,238 million tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$329,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Pittsburgh

Ohio River Open Channel Works,
PA, OH, & WV

APPROPRIATION: Operation and Maintenance

PROJECT NAME: Prompton Lake, PA

AUTHORIZATION: This project was authorized by House Document 80-113 (1948), as modified by House Document 87-522 (1962)

LOCATION AND DESCRIPTION: The project is on Lackawaxen River within the Borough limits of Prompton, four miles upstream from Honesdale, Pennsylvania, and 30 miles above the confluence of the Lackawaxen and Delaware Rivers. The project consists of an earth- and rock-filled dam, 140-feet high and 1,226-feet long on the crest. The reservoir has a capacity of 20,300 acre-feet for flood control, 28,000 acre feet of excess storage with a conservation pool of 3,400 acre-feet capacity.

FISCAL YEAR 2016 ALLOCATION: \$579,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance, water control and water quality data collection and analyses and dam safety efforts. A Periodic Dam Inspection and Potential Failure Modes Analysis and a Tabletop Emergency Exercise are being conducted in 2016.

FISCAL YEAR 2017 ALLOCATION: \$655,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance, real estate, dam safety efforts and water control and water quality data collection and analyses, periodic and required dam safety inspections of the control structures, periodic positional survey, bridge inspection, and a CRM-D Assessment.

BUDGETED AMOUNT FOR FY 2018: M: \$420,000 O: \$565,000 T: \$985,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$965,000 – Funds will be used for routine operation and maintenance which includes the operation buildings, the dam and related structures, grounds and equipment, management of public-use areas such as access roads, parking lots. Other specific work includes continuing evaluation gathering, dam safety efforts, required inspections, real estate, and water-control and water-quality analyses.

RC: N/A

H: N/A

EN: \$20,000 – Funds will be used for stewardship activities at the project including evaluation of improving fee owned land from degraded to transitioning status, review of the status of invasive plant species, threatened and endangered species, continuation of good stewardship practices, and continued verification of all data related to the level one inventory and reporting requirements.

WS: N/A

OTHER INFORMATION: None

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$190,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Punxsutawney, PA

AUTHORIZATION: The Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Punxsutawney, PA is located in Jefferson County on Mahoning Creek, 52 miles above its mouth and 30 miles above Mahoning Creek Lake Dam. Punxsutawney, PA is a local flood protection project. The project provides flood protection by channel enlargement, dikes, and walls. The improvements are designed to accommodate discharges 20 percent greater than that of the maximum flood of record.

FISCAL YEAR 2016 ALLOCATION: \$27,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operations and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$48,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operations and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$15,000 T: \$15,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$15,000 – Funds will provide for routine operation through inspection of the project.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Punxsutawney is estimated to have prevented \$103,000,000 in flood damages since its completion in 1940.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raystown Lake, PA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Raystown Lake is located on the Raystown Branch about 5.5 miles upstream from its confluence with the Juniata River in Huntingdon County of Pennsylvania. The dam is an earth- and rock-fill structure with a two-bay gated spillway with two tainter gates.

FISCAL YEAR 2016 ALLOCATION: \$5,342,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dam, further design and investigation on the tainter gates, operation and maintenance of recreation facilities and services, sustainability work, natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations, endangered bat surveys and reforestation of areas previously treated for invasive species.

FISCAL YEAR 2017 ALLOCATION: \$4,572,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dam, operation and maintenance of recreation facilities and services, sustainability work, natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations, endangered bat surveys and reforestation of areas previously treated for invasive species. Additional funds are provided for master plan update scoping (\$50,000).

BUDGETED AMOUNT FOR FY 2018: M: \$18,290,000 O: \$3,740,000 T: \$22,030,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$18,078,000 - Funding will provide for routine operation and maintenance. Additional funds are provided to clean and inspect spillway relief wells (\$100,000), to prepare design, plans and specs for the following: a facing layer of compacted clay on erodible dike of the fuse plug spillway (\$70,000), for clearing weepholes in the outlet tunnel (\$103,000), for inspection of the upstream end of tunnel (\$150,000), for new warm water gate intake system (\$350,000), for repairs to undermining of the tunnel invert slab at the outlet end (\$42,000), and for replacement of joint sealants in the spillway (\$60,000). Perform engineering study to determine impact and risks of seepage through concrete joints in spillway area (\$42,000) and retrofit Raystown tainter gates and operating equipment (\$15,000,000).

RC: \$2,319,000 - Funding will provide for routine operation and maintenance.

H: N/A

EN: \$1,633,000 - Funding will provide for natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations, survey of endangered species of bats and to reforest areas previously treated for invasive species.

WS: N/A

OTHER INFORMATION: The project encompasses 29,700 total acres and flood control storage available is 248,000 acre-feet. Operation of the project provides benefit to a population at risk of 95,000. Flood damages prevented through FY 2014 are \$285 million. The Corps of Engineers operates and maintains 12 public access areas. Additionally, there are four recreation real estate concession leases.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$811,000. There was an additional \$7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shenango River Lake, PA

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Shenango Dam is located on the Shenango River about 0.8 mile north of Sharpsville and 34.2 miles above its junction with the Mahoning River near New Castle, PA where it forms the Beaver River. The reservoir is located in Mercer County, PA. The project extends into Trumbull County, OH northeast of Youngstown. Shenango River Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,970,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project. Non-routine maintenance funds will be used for sustainability work to include HVAC and Lighting Energy Conservation Measures.

FISCAL YEAR 2017 ALLOCATION: \$2,303,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$435,000 O: \$2,029,000 T: \$2,464,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,415,000 – Funding will provide for routine Operation and Maintenance for the dam.

RC: \$910,000 – Funding will provide for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$139,000 – Funding will provide for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Shenango River Lake is estimated to have prevented \$202,643,000 in flood damages since its completion in 1965. The average of annual recreational visits from 2009 through 2013 was 545,914.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillwater Lake, PA

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Stillwater Lake is located in Susquehanna County of Pennsylvania on the Lackawanna River four miles north and upstream from Forest City. The dam is an earthen-fill structure, 1,700 feet long and rises 75 feet above the streambed, with a spillway and gate controlled outlet.

FISCAL YEAR 2016 ALLOCATION: \$565,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was for routine operation and maintenance of the project.

FISCAL YEAR 2017 ALLOCATION: \$503,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for operation and maintenance of the dam, natural resources protection and conservation, and developing a cultural resources management plan.

BUDGETED AMOUNT FOR FY 2018: M: \$93,000 O: \$750,000 T: \$843,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$825,000 - Funding will provide for operation and maintenance.

RC: N/A

H: N/A

EN: \$18,000 - Funding will provide for natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The project reduces flood heights on the Lackawanna River, downstream of the dam and on the Susquehanna River, downstream from its confluence with the Lackawanna River. Operation of the project provides benefit to a population at risk of 285,000. Flood damages prevented through FY 2014 are an estimated \$200 million. Pennsylvania-American Water Company utilizes Stillwater as a source of water supply for the Forest City Water Purification Plant. The Pennsylvania Fish and Boat Commission operate and maintain a boat launch at the lake under a real estate agreement.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$83,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tioga-Hammond Lakes, PA

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: The project is located just upstream of Tioga, Pennsylvania. The project consists primarily of two separate dams, one on Tioga River, and one on Crooked Creek. Both dams are located two miles upstream of the confluence of the two streams. The lakes are joined by a gated connecting channel in a saddle of the ridge separating the two streams. An uncontrolled spillway in Hammond Dam serves both reservoirs. A gated outlet conduit is provided in the left abutment of Tioga Dam for the control of flows for both reservoirs. An additional project feature is the Mansfield local flood protection project which consists of channel improvements, levees, and pumping stations to protect the borough of Mansfield during high water events.

FISCAL YEAR 2016 ALLOCATION: \$2,706,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for routine operation and maintenance of the dams, natural resources protection and conservation, timber salvage cuts, invasive species treatment, ecosystem management, repair of degraded and eroded creek beds to improve habitat, and safety and compliance with natural resources laws and regulations.

FISCAL YEAR 2017 ALLOCATION: \$2,884,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for routine operation and maintenance of the dams, natural resources protection and conservation, timber salvage cuts, invasive species treatment, ecosystem management, repair of degraded and eroded creek beds to improve habitat, and safety and compliance with natural resources laws and regulations. Additional funds are provided for Ives Run sewage treatment plant tank relining and pipe repair (\$100,000).

BUDGETED AMOUNT FOR FY 2018: M: \$888,000 O: \$2,196,000 T: \$3,084,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,581,000 - Funding will provide for routine operation and maintenance. Additional funds will provide for design, plans and specs for Mansfield levee fill at low areas (\$105,000).

RC: \$1,002,000 - Funding will provide for routine operation and maintenance.

H: N/A

EN: \$501,000 - Funding will provide for natural resources protection and conservation, timber salvage cuts, invasive species treatment, ecosystem management, repair of degraded and eroded creek beds to improve habitat, and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 300,000. Flood damages prevented through FY 2014 are \$539 million. The Corps operates and maintains the Ives Run and Lambs Creek recreation areas, as well as two overlooks.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$159,000. There was an additional \$16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Baltimore

Tioga-Hammond Lakes, PA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tionesta Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Tionesta Dam is located 78 miles northeast of Pittsburgh in Forest County. It lies on Tionesta Creek, 1.17 miles above the junction of the creek with the Allegheny River at Tionesta, PA. Tionesta Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$2,002,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine O&M of the project. Non-routine maintenance funds will be used for sustainability work to include HVAC and Lighting Energy Conservation Measures \$54,000.

FISCAL YEAR 2017 ALLOCATION: \$2,155,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M of the project and resolution of real estate encroachments (\$75,000).

BUDGETED AMOUNT FOR FY 2018: M: \$533,000 O: \$1,865,000 T: \$2,398,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,674,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$582,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$142,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Tionesta Lake is estimated to have prevented more than \$571,594,000 in flood damages since its construction in 1940. The average annual recreational visits from 2009 through 2013 was 706,093.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$58,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Union City Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Union City Dam is located seven miles south of Union City in Erie County. It lies on French Creek 73.9 miles upstream from its junction with the Allegheny River near Franklin, PA. Union City Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$410,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$404,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$57,000 O: \$414,000 T: \$471,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$421,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$35,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$15,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Union City Lake is estimated to have prevented more than \$89,295,000 in damages since its construction in 1971. The average of annual recreational visits from 2009 through 2013 was 27,824.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Woodcock Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Woodcock Dam is located three miles southeast of Saegertown in Crawford County on Woodcock Creek. The dam is 3.6 miles upstream from the creek's confluence with French Creek at a point 37.1 miles upstream from its confluence with the Allegheny River at Franklin, PA. Woodcock Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$935,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,120,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$153,000 O: \$862,000 T: \$1,015,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$807,000 – Funding provides for routine Operation and Maintenance for the dam.

RC: \$194,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$14,000 – Funding provides for routine Operation and Maintenance for Environmental Stewardship.

WS: N/A

OTHER INFORMATION: Woodcock Creek Lake is estimated to have prevented \$34,650,000 in flood damages since its construction in 1974. The average of annual recreational visits from 2009 through 2013 was 269,597.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$16,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: York Indian Rock Dam, PA

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938

LOCATION AND DESCRIPTION: Project comprises the protective works for York, Pennsylvania, and consists of Indian Rock Dam, which is three miles upstream from York, and channel improvements on Codorus Creek in the City of York. Indian Rock Dam is an earthen and rock structure with a side-channel spillway and gated outlet. Codorus Creek project consists of channel improvements including channel widening and deepening, flood walls, levees, protection of bank slopes, and removal of a mill dam to increase channel capacity.

FISCAL YEAR 2016 ALLOCATION: \$1,436,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was for operation and maintenance of the dam and Codorus Creek levee system, natural resources protection and conservation, and update the master plan.

FISCAL YEAR 2017 ALLOCATION: \$840,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used to provide for operation and maintenance of the dam and Codorus Creek levee system and natural resources protection and conservation. Additional funds provide for completion of master plan and NEPA (\$105,000).

BUDGETED AMOUNT FOR FY 2018: M: \$16,102,000 O: \$850,000 T: \$16,952,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$16,836,000 - Funding will provide for operation and maintenance. Non-routine activities include constructing a new concrete floodwall or earthen levee to replace the undermined floodwall (\$5,000,000). In addition, funds are provided to clean and inspect over 100 drainage conduits penetrating the Codorus Creek Flood Protection Project (\$500,000), provide comprehensive plan for long-term maintenance and repair of Codorus Creek (\$100,000), design riprap at upstream of Codorus Creek (\$15,000) and construct riprap (\$1,000,000), construction for repair and replacement of drainage conduits at Codorus Creek (\$5,000,000), design for repair of bulge in floodwall just downstream of Market Street Bridge (\$200,000), and construction for repair of bulge in floodwall (\$2,000,000), design for repair or replacement drainage conduits through levee sections at Codorus Creek (\$500,000), and repair items including concrete, masonry, and drainage pipe deterioration (\$1,000,000)

RC: N/A

H: N/A

EN: \$116,000 - Funding will provide for natural resources protection and conservation, ecosystem management and safety and compliance with natural resources laws and regulations.

WS: N/A

OTHER INFORMATION: The typically dry reservoir area has a storage capacity of 28,000 acre-feet and controls a drainage area of 94 square miles. Project protects the community of York, Pennsylvania, against flood discharges about 33-percent greater than the record flood of August 1933. Tropical storm Agnes (June 1972) filled the flood control reservoir and produced spillway flow. Operation of the project protects a population at risk of 20,000. Flood damages prevented through FY 2014 are an estimated \$54 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$451,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Youghiogheny River Lake, PA and MD

AUTHORIZATION: Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The dam is located 1.2 miles above Confluence, Pennsylvania on the Youghiogheny River about 74.2 miles above its junction with the Monongahela River at McKeesport, Pennsylvania. The reservoir is located in Fayette and Somerset Counties in Pennsylvania and Garrett County in Maryland. Youghiogheny River Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$3,292,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operations and maintenance (O&M) of the project. Non-routine maintenance funds will be used for repairs to control tower electrical system \$650,000; replacement of unsafe concrete and grating \$250,000; and sustainability work to include HVAC and Lighting Energy Conservation Measures \$45,000; and to develop a plan for water supply to the Outflow Campground.

FISCAL YEAR 2017 ALLOCATION: \$2,523,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will provide for routine O&M of the dam. Routine activities include water control management, dam safety inspections, required safety-related analyses and studies, and real estate outgrant management. Non-routine funding will provide for the replacement of concrete, grating, and the electrical system on the control tower.

BUDGETED AMOUNT FOR FY 2018: M: \$464,000 O: \$2,244,000 T: \$2,708,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,976,000 – Funding provides for routine Operations and Maintenance for the dam.

RC: \$566,000 – Funding provides for routine Operations and Maintenance for Recreation.

H: N/A

EN: \$158,000 – Funding provides for routine Operations and Maintenance for Environmental Stewardship.

WS: \$8,000 – Funds will provide for management of the water supply contract and related issues.

OTHER INFORMATION: Youghiogheny River Lake is estimated to have prevented \$585,969,000 in flood damages since its construction in 1943. The average of annual recreational visits from 2009 through 2013 was 456,970. Water Supply results in annual reimbursement to the Treasury of \$160,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$151,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

PUERTO RICO

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Juan Harbor, PR

AUTHORIZATION: Chief of Engineers Report, dated December 1982; Section 202(a) of the Water Resources Development Act (WRDA) of 1986 (Public Law (PL) 99-662), and Section 301(a)(12) of the WRDA of 1996 (PL 104-303).

LOCATION AND DESCRIPTION: San Juan Harbor is located within the San Juan metropolitan area along the north coast of Puerto Rico. It is the island's principal port, handling over 75 percent of the Commonwealth's non-petroleum waterborne commerce. This is a high use, deep draft navigation project.

FISCAL YEAR 2016 ALLOCATION: \$6,425,000

DESCRIPTIONS OF WORK FOR 2016: FY 2016 funds were used for routine operations in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$2,800,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$100,000 T: \$100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$100,000 – Funds will be used for routine operations in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Over 11 million tons of cargo passes through San Juan Harbor on an annual basis.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$75,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

RHODE ISLAND

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Fox Point Hurricane Barrier, RI

AUTHORIZATION: The Flood Control Act of 1958 as modified by the National Defense Authorization Act of 2007 (PL 109-364).

LOCATION AND DESCRIPTION: Fox Point Hurricane Barrier is across the Providence River in Providence, Rhode Island, one mile from the downtown area. The barrier is a concrete structure, with a pumping station and three tainter gates. When closed, the gates prevent entry of tidal floodwaters into the City.

FISCAL YEAR 2016 ALLOCATION: \$2,610,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$1,640,000 to complete rehabilitation of one of five pumps, \$75,000 for security improvements and \$140,000 to evaluate project settlement and deformation issues.

FISCAL YEAR 2017 ALLOCATION: \$1,067,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$5,000 to conduct required bridge inspections. In addition, non-routine work will be funded for \$250,000 to complete design of corrective measures for project settlement and deformation issues.

BUDGETED AMOUNT FOR FY 2018: M: \$2,068,000 O: \$748,000 T: \$2,816,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,816,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. In addition, replace wall louvers and conduct arc flash evaluations (\$150,000).

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project has prevented an estimated \$6.1 million in flood damages since placed in service in 1966.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$551,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Woonsocket Local Protection Project, RI

AUTHORIZATION: Authorized by the Flood Control Act of 1944.

LOCATION AND DESCRIPTION: The Woonsocket Local Protection Project is located along the Blackstone River in Rhode Island, extending about 8,300 feet downstream from the Massachusetts and Rhode Island border to Woonsocket Falls Dam in the center of Woonsocket, Rhode Island. The project consists of widening, deepening, and straightening of the river channel 8,300 feet upstream of Woonsocket Falls Dam, and includes construction of a pumping station, 1,115 feet of earthen dike and 316 feet of concrete floodwall. The project included replacement of the Woonsocket Falls Dam with a concrete overflow structure 266-feet wide and equipped with four tainter gates.

FISCAL YEAR 2016 ALLOCATION: \$509,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$160,000 to replace the security fencing.

FISCAL YEAR 2017 ALLOCATION: \$544,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$3,000 for required bridge inspections and \$95,000 to conduct required periodic inspection of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$75,000 O: \$327,000 T: \$402,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$402,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling releases from Woonsocket Falls Dam; as well as maintenance service contracts for snow and debris removal, and vegetation control along dike slopes and adjacent to floodwalls.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project was turned over to the City of Woonsocket to operate and maintain in accordance with the Assurance Agreement in 1963. National Defense Authorization Act of 2008 transferred responsibility of the operation and maintenance of the project to the Corps of Engineers. Project has prevented an estimated \$161.7 million in flood damages since placed in service in 1960.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

SOUTH CAROLINA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), SC

AUTHORIZATION: River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: The AIWW is a naturally protected low use, inland navigation project that generally parallels the Atlantic coast between Norfolk, Virginia and the St. John's River in Florida. South Carolina's portion runs a distance of 210 miles and has an authorized depth of 12 feet. Approximately 90 small to medium-sized disposal areas along the AIWW totaling 2,399 acres are maintained. The AIWW is divided into three reaches in South Carolina and the current controlling depth of the project is -0.5 feet below mean lower low water (MLLW).

FISCAL YEAR 2016 ALLOCATION: \$99,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$6,600,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine maintenance in support of navigation. In addition, funds are provided for disposal area maintenance (\$4,000,000) and maintenance contract dredging of critical shoals (\$2,500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$120,000 O: \$79,500 T: \$199,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$199,500 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Utilizing the AIWW, approximately 14,000 barrels of jet fuel are delivered on a weekly basis from Jacksonville, Florida to the Marine Corps Air Station in Beaufort, South Carolina.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$201,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charleston Harbor, SC

AUTHORIZATION: River and Harbor Acts of 1878, 1917, 1918, 1927, 1940, 1946, 1954 and 1960, as amended, and Water Resources Development Acts of 1986 and 1996.

LOCATION AND DESCRIPTION: Charleston Harbor, a high use deep draft navigation project, is located about midway along South Carolina's Atlantic coastline. This project consists of maintenance of 38.6 miles of channel, three turning basins, and one anchorage basin. The lower harbor requires dredging every year, the entrance channel every other year, and the upper harbor approximately every 16 - 18 months. The material removed from the upper harbor is placed in the Clouter Creek Disposal Area, which is approximately 1,475 acres in size. The material removed from the lower harbor and entrance channel is placed in the Ocean Dredged Material Disposal Site (ODMDS).

FISCAL YEAR 2016 ALLOCATION: \$17,839,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation.

FISCAL YEAR 2017 ALLOCATION: \$15,476,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operations and maintenance in support of navigation and dredging of the lower reaches to the advance maintenance depth.

BUDGETED AMOUNT FOR FY 2018: M: \$15,568,000 O: \$541,500 T: \$16,109,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$16,109,500 – Funds will be used for routine operations and maintenance in support of navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Latest commercial tonnage for FY 2015 was 21.8 million tons of cargo. The major commodity imported and exported is manufactured equipment and machinery. Per United States Department of Commerce/Bureau of the Census, the 2015 value of waterborne commerce through Charleston was \$75.8 billion. Charleston Harbor is listed as one of 17 US strategic ports because of the presence of the Naval Weapons Station, Military Surface Deployment and Distribution Command, Defense Energy Support Center and Army Strategic Logistics Activity Charleston.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,267,000. There was an additional \$32,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cooper River, Charleston Harbor, SC

AUTHORIZATION: Section 101 of the River and Harbor Act of 1968 (P.L. 90-483), modified in the Energy and Water Development Appropriations Act of 1992 (P.L. 102-104) and further modified by Section 353, Water Resources Development Act of 1999

LOCATION AND DESCRIPTION: The project is located in Charleston and Berkeley counties. All improvements are in Berkeley County about 45 miles from Charleston. The project includes operation and maintenance of the powerhouse and associated structures and facilities in accordance with our agreement with the South Carolina Public Service Authority (SCPSA). The purpose of the re-diversion project is to reduce shoaling in Charleston Harbor, a high use deep draft navigation project. Also included in the project authorization was the design and construction of a fish lift as a mitigation feature intended to maintain the number of blueback herring entering the Santee-Cooper Lakes.

FISCAL YEAR 2016 ALLOCATION: \$7,281,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operations and maintenance in support of navigation. Non-routine maintenance included refurbishment of head gate controls, maintenance of wheel pit platform, completion of raw water piping, replacement of Unit 1 unwatering pump, and maintenance of the draft tube fall protection.

FISCAL YEAR 2017 ALLOCATION: \$11,478,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine and non-routine operations and maintenance in support of navigation. Non-routine maintenance includes fish-lift venting at Gates 3 and 5, prepare the design to comply with updated seismic requirements, adding an HVAC system in the Fish Lift Visitor Area, gate and metal grating refurbishment and coating, performing the generator re-wedge and brakes for Unit 1, refurbish the draft tube gates, refurbish the intake gates, refurbish unit head gates, repair roads and parking lots, and stabilize Highway 45 bank to prevent erosion damage to access roads.

BUDGETED AMOUNT FOR FY 2018: M: \$3,307,000 O: \$1,700,000 T: \$5,007,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,007,000 – Funds will be used for routine operations and maintenance in support of navigation. Non-routine maintenance activities include perform generator re-wedge and brakes for Unit 3 (\$462,000), refurbish fire protection system (\$315,000), and replace supervisory control and data acquisition (\$330,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project is an extension of the Charleston Harbor project. The project was authorized, constructed, and is operated with one purpose - the reduction of siltation in Charleston Harbor. Charleston Harbor is listed as one of 17 US strategic ports and the harbor generates \$45.0 billion annually for the regional economy. Latest commercial tonnage as reported by the Waterborne Commerce

Division: South Atlantic

District: Charleston

Cooper River, Charleston Harbor, SC

Statistics Center for Fiscal Year 2015 was 21.8 million tons of cargo. Per United States Department of Commerce/Bureau of the Census, the 2015 value of waterborne commerce through Charleston was \$75.8 billion.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$373,000. There was an additional \$13,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

SOUTH DAKOTA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Big Bend Dam & Lake Sharpe, SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: The Big Bend Project is located northwest of Chamberlain, South Dakota, on South Dakota Highway 47, near Ft. Thompson, South Dakota. Construction on the dam began in 1959 and closure of the embankment occurred in 1963. The dam measures 10,570 feet in length and has a maximum height of 95 feet. Lake Sharpe extends 80 miles upstream, creates 200 miles of shoreline, and has a maximum depth of 78 feet at the dam.

FISCAL YEAR 2016 ALLOCATION: \$10,259,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Significant non-routine work completed included replacement of the power plant intake gate hoist gear box and rehabilitation of power house drains and uplift piezometers.

FISCAL YEAR 2017 ALLOCATION: \$10,453,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. Additional funds are being used to replace the power plant security access vehicle gate (\$60,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,083,000 O: \$8,384,000 T: \$10,467,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$752,000 - Funding provides for routine operation and maintenance for recreation.

H: \$5,042,000 – Funding provides for routine operation and maintenance for hydropower facilities.

EN: \$1,359,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include \$500,000 for stabilization of Antelope Creek cultural site and pest and invasive species management (\$80,000).

WS: \$8,000 – Funding provides for management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$3,306,000 for project features jointly used by multiple business lines: HYD - 100.0%. Cumulative flood damages prevented, through 2015 flood season, \$686 million. Plant installed generation capacity of 497 Megawatts, produced \$27 million in power production in FY15.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$461,000. There was an additional \$9,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cold Brook Lake, SD

AUTHORIZATION: River and Harbor Act of 1941 (PL 77-228) and Flood Control Act of 1944 (Pick-Sloan Act, PL 78-534)

LOCATION AND DESCRIPTION: Cold Brook Dam is located one mile north of Hot Springs, South Dakota. The dam is 925 feet in length and has a height of 127 feet. Cold Brook Lake is 1.2 miles in length and its multipurpose pool contains 520 acre-feet of water. Cold Brook Dam was constructed to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The Flood Control Act of 1941 authorized the construction of these two dams and the channel improvements within the community of Hot Springs.

FISCAL YEAR 2016 ALLOCATION: \$365,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other associated facilities.

FISCAL YEAR 2017 ALLOCATION: \$346,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$23,000 O: \$347,000 T: \$370,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$234,000 - Funding provides for routine operation and maintenance for flood risk management.

RC: \$89,000 - Funding provides for routine operation and maintenance for recreation. Non-routine activities include \$15,000 for replacement of a vault toilet.

H: N/A

EN: \$47,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include pest and invasive species management (\$12,000) and boundary inspection and marking (\$35,000).

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 total \$2.5 million. The project encompasses 484 land acres, 36 water acres with 2 miles of shoreline, and has a total reservoir storage capacity of 7,200 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 72,000 visits per year, generates approximately \$2.2 million in revenue, and sustains 22 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$13,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cottonwood Springs Lake, SD

AUTHORIZATION: Flood Control Acts of 1941 and 1944 (P.L. 77-228, 78-534)

LOCATION AND DESCRIPTION: Cottonwood Springs Dam is located 4.5 miles west of Hot Springs South Dakota. The dam and channel improvements were constructed under the authorization of Flood Control Act of 1941 to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The dam is 1,190 feet in length and stands 123 feet high.

FISCAL YEAR 2016 ALLOCATION: \$296,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and other associated facilities.

FISCAL YEAR 2017 ALLOCATION: \$258,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and other associated facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$7,000 O: \$219,000 T: \$226,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$158,000 - Funding provides for routine operation and maintenance for flood risk management.

RC: \$51,000 - Funding provides for routine operation and maintenance for recreation.

H: N/A

EN: \$17,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2015 total \$108,800. The project encompasses 608 land acres, 42 water acres with 2 miles of shoreline, and has a total reservoir storage capacity of 8,400 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 16,000 visits per year, generates approximately \$540,000 in revenue, and sustains 5 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$12,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fort Randall Dam, Lake Francis Case, SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: Fort Randall Dam is located twelve miles west of Wagner, South Dakota. Construction on Fort Randall Dam began in 1946 and was completed in 1956. The dam measures 10,700 feet in length and has a maximum height of 140 feet. Lake Francis Case extends 107 miles upstream, creates 540 miles of shoreline, and has a maximum depth of 140 feet at the dam. The water in Lake Francis Case is stored for flood damage reduction, power generation, navigation support, fish and wildlife, recreation, irrigation, water supply, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$11,060,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Significant non-routine work performed rehabilitation of bridge crane, intake structure curtain wall work, power house fascia caulking, penstock spot painting and the replacement of programmable logic controllers as well as work on project roads.

FISCAL YEAR 2017 ALLOCATION: \$11,139,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. In addition non-routine funds will be used to rehabilitate and/or replace station service switchgear.

BUDGETED AMOUNT FOR FY 2018: M: \$3,160,000 O: \$9,416,000 T: \$12,576,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$170,000 - Funding provides for routine operation and maintenance for recreation.

H: \$6,991,000 – Funding provides for routine operation and maintenance for hydropower facilities. Non-routine activities include \$345,000 for replacing fire suppression systems in the oil rooms, Baseline Security Posture (BSP) upgrade (\$605,000), and repairing catwalks in tunnel terminal areas 1-8 (\$200,000).

EN: \$1,270,000 – Funding provides for routine operation and maintenance for environmental stewardship.

WS: \$8,000 – Funding provides for management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$4,137,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 43.78%, NAV - 23.73%, and FRM - 32.49%. Non-routine activities on jointly used features include \$125,000 to replace fire alarm systems and \$44,000 of sustainability funding to perform a project energy audit. Plant installed generation capacity of 320 megawatts, produced \$50.1 million in power production in FY 2015. The project encompasses 115,861 land acres, 77,237 water acres with 263 miles of shoreline, and has a total reservoir storage capacity of 5,293,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 214,000 visits per year, generates approximately \$7.7 million in revenue, and sustains 71 jobs.

Division: Northwestern

District: Omaha Fort Randall Dam, Lake Francis Case, SD

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$970,000. There was an additional \$27,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Traverse, SD and MN

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: The project is located on the Minnesota/South Dakota border between Browns Valley, Minnesota and Wahpeton, North Dakota. Browns Valley on the southern end of the project is the location of the continental divide where flowages split between the Gulf of Mexico to the south and Hudson Bay to the north. The project consists of two dams and appurtenant structures and provides flood control benefits downstream on the Bois de Sioux River and the Red River of the North. The lake drains through the Bois de Sioux River to the Red River of the North, and the two waters form a portion of the boundary between Minnesota and South Dakota. The Lake Traverse and Bois de Sioux River project is a flood control and water conservation reservoir which includes: a main structure consisting of a 14,500 foot earth dam and a concrete control structure at the north end of Lake Traverse near White Rock, SD; a secondary control structure at Reservation Highway near Wheaton which permits control of the upper section of the reservoir at a slightly higher elevation; a 5,000 foot embankment at the south end of Lake Traverse to protect Browns Valley; and 24 miles of channel improvement below the main dam.

FISCAL YEAR 2016 ALLOCATION: \$538,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$579,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$693,000 T: \$693,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$569,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: \$59,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$65,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship.

WS: N/A

OTHER INFORMATION: Damages prevented since construction are estimated at \$4.5 billion. There are day use public access sites providing fishing and related outdoor recreation activities and the project boasts over 800 acres of wildlife management areas open for public use.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$26,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Mississippi Valley

District: St. Paul

Lake Traverse, SD and MN

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oahe Dam & Lake Oahe, SD

AUTHORIZATION: Flood Control Act of 1944 (PL 78-534), Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: **LOCATION AND DESCRIPTION:** The Oahe project is located seven miles north of Pierre, South Dakota. Construction on Oahe Dam began in 1948 and the project began generating electricity in 1962. The dam measures 9,300 feet in length and has a maximum height of 245 feet. The project provides benefits of flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

FISCAL YEAR 2016 ALLOCATION: \$11,725,000

DESCRIPTION OF WORK FOR FY 2016: Funds were used for the routine operation and maintenance of the dam and its ancillary facilities. Significant non-routine work performed includes replacing the plant unwatering valves and the replacement and/or rehabilitation of critical piezometers.

FISCAL YEAR 2017 ALLOCATION: \$12,128,000

DESCRIPTION OF WORK FOR FY 2017: Funds are being used for the routine operation and maintenance of the dam and its ancillary facilities. In addition non-routine funds will be used for sustainability work to provide Beaver Creek Recreation Area security lighting upgrades and for power plant erection bay lighting upgrades as well as repairing leaking water pipes at the visitor's center.

BUDGETED AMOUNT FOR FY 2018: M: \$2,947,000 O: \$10,882,000 T: \$13,829,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$537,000 - Funding provides for routine operation and maintenance for recreation. Non-routine activities include \$65,000 to improve accessibility at the Hazelton Recreation Area.

H: \$5,903,000 – Funding provides for routine operation and maintenance for hydropower facilities. Non-routine activities include removing asbestos containing material from structures (\$215,000).

EN: \$2,373,000 – Funding provides for routine operation and maintenance for environmental stewardship. Non-routine activities include \$250,000 for protection of Rorgo / Ryghs cultural site.

WS: \$8,000 – Funding provides for management of surplus water storage agreements.

OTHER INFORMATION: The budgeted amount for the project includes \$5,008,000 for project features jointly used by multiple business lines: HYD - 43.78%, NAV - 23.73%, and FRM - 32.49%. Non-routine activities for jointly used facilities include \$600,000 to replace switch gear that feeds power to the outlet works and spillway. Plant installed generation capacity of 786 megawatts, produced \$72.3 million in power production in FY 2015. The project encompasses 408,989 land acres, 364,663 water acres with 2,250 miles of shoreline, and has a total reservoir storage capacity of 22,983,000 acre-feet. It also provides recreational programs, activities, and facilities that support approximately 2,100,000 visits per year, generates approximately \$29.7 million in revenue, and sustains 565 jobs.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$703,000. There was an additional \$26,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Northwestern

District: Omaha

Oahe Dam Lake, SD

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

TENNESSEE

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Center Hill Lake, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Center Hill Lake is located on the Caney Fork River in the Counties of DeKalb and Smith, about 80 miles east of Nashville. The project consists of a combination earthen and concrete gravity-type dam, a hydropower plant, and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$8,088,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project; replacement of governor air compressors (\$36,000); replacement of a failed sewer system (\$983,500); replacement of breakers, service boards, and other components to reduce Arc Flash hazards (\$800,000); plans and specifications for rehabilitation of the spillway gate electrical, mechanical, and structural components (\$250,000); plans and specifications for repairs to the failed trunnions and seals on the spillway gates (\$250,000); and replacement of HVACs, doors and windows to improve energy consumption (\$35,000).

FISCAL YEAR 2017 ALLOCATION: \$6,675,000

DESCRIPTIONS FOR WORK FOR FY 2017: Funding provided for routine O&M of the project and replacement of roadway lighting with energy-efficient fixtures (\$250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$4,429,000 O: \$5,918,000 T: \$10,347,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,530,000 – Funding provides for routine O&M for recreation.

H: \$4,759,000 – Funding provides for routine O&M for the hydroelectric power plant.

EN: \$362,000 – Funding provides for routine O&M for environmental stewardship.

WS: \$42,000 – Funding provides for routine O&M for water supply.

OTHER INFORMATION: The average generation for the hydropower plant is 350,000 MWH of energy annually, which is enough to supply 31,000 homes. Center Hill Lake ranks 22nd of 422 in the USACE for recreation with 3,121,146 project visits in FY 2012 with an estimated \$70,450,000 in trip spending. Revenues returned to the U.S. Treasury under the Water Supply Agreement collections for FY 2015 were \$214,000. The project prevented \$556,135,000 in damages through FY 2015. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$3,654,000 shared between business lines as follows: HYD – 53% and FRM – 47%. These Joint activities include \$1,500,000 for joint-use work packages to repair spillway gate trunnion and seals.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cheatham Lock and Dam, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Cheatham Lake is a high-use waterway located at Cumberland River mile 148.6, 42 river miles downstream of Nashville, Tennessee. It is approximately 10 miles northwest of Ashland City, Tennessee. The project consists of a 110-foot by 800-foot lock, concrete gravity-type dam, hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$10,135,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M); replacement of hydropower generator thrust bearing coolers (\$150,000); replacement of breakers, service boards and other components to reduce Arc Flash Hazard (\$800,000); and continuing repairs to spillway gates at Cheatham Dam (\$2,200,000).

FISCAL YEAR 2017 ALLOCATION: \$7,787,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funding provided for routine O&M of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,884,600 O: \$6,358,400 T: \$8,243,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,594,000 - Funding provides for routine O&M for navigation.

FRM: N/A

RC: \$891,000 - Funding provides for routine O&M for recreation.

H: \$3,335,000 - Funding provides for routine O&M for the hydroelectric power plant and Replace existing SCADA system.

EN: \$361,000 - Funding provides for routine O&M for environmental stewardship.

WS: \$22,000 - Funding provides for routine O&M for water supply.

OTHER INFORMATION: Cheatham Lock processed 8,793,010 tons of waterborne commerce in 2015. No alternate navigation route is available. Electric utilities serving the Southeast move coal from mines in Wyoming and Kentucky thru Cheatham. Approximately 3.5M tons of coal are shipped through the locks to coal-fired steam plants, providing 4.7 million megawatt-hours (MWh) of energy to the electrical grid. Nashville industries also depend heavily on bulk commodity delivery for raw materials. Coal & aggregates are dominant commodities. Construction companies move cement and aggregates; steel fabricators move iron and steel products into the Cumberland Valley. These and other shippers realize average annual transportation cost savings of more than \$82,000,000. The hydropower plant generates 153,000 MWh of energy annually or enough supply for 13,000 homes. Cheatham Lake ranks 42nd of 422 among the Corps for recreation with 1,987,647 project visits in FY 2012, which is the year of record for visitation, with an estimated \$40,990,000 in trip spending. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$1,040,000 shared between business lines as follows: NAV – 100%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,090,000. There was an additional \$13,000 of unobligated funds that are committed within the Corps for scheduled
Division: Great Lakes and Ohio River District: Nashville Cheatham Lock and Dam, TN

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chickamauga Lock, TN

AUTHORIZATION: River and Harbor Act of 1946 (P.L. 79-14)

LOCATION AND DESCRIPTION: Chickamauga Lock is located on a high-use waterway at Mile 471.0 on the Tennessee River in Chattanooga, Tennessee. Chickamauga Lock was completed in 1940.

FISCAL YEAR 2016 ALLOCATION: \$1,614,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for repairs to the main lock bearing blocks, lower gate and culvert valve sector arms.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$6,067,000 O: \$0 T: \$6,067,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$6,067,000 – Funding provides for repair of Upstream Miter Gate Embedded Anchorage (\$3,097,000) and post tensioning anchors for monolith block 48 (\$2,970,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Structural reliability problems from concrete expansion will eventually require lock closure. Development of Tennessee Valley Authority (TVA) Mega Sites near the Chickamauga pool is expected to increase river shipments of raw materials. In the near term, TVA is likely to switch a percentage of their coal shipments to the Bull Run steam plant from rail to water, effectively doubling the lock's annual tonnage.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$7,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cordell Hull Dam and Reservoir, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Cordell Hull Dam and Reservoir is a low-use waterway with the dam located on the Cumberland River at river mile 313.5, about 12 miles north of Carthage, Tennessee. The project consists of an 84-foot by 400-foot lock, concrete gravity- and earthen-fill dam, a hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$7,138,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$7,255,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,231,000 O: \$6,471,000 T: \$7,702,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$520,000 – Funding provides for routine O&M for navigation.

FRM: N/A

RC: \$1,953,000 - Funding provides for routine O&M for recreation.

H: \$2,959,000 - Funding provides for routine O&M for the hydroelectric power plant.

EN: \$494,000 - Funding provides routine O&M for environmental stewardship.

WS: \$15,000 - Funding provides for routine O&M for water supply.

OTHER INFORMATION: The hydropower plant generates 363,000 megawatt-hours annually, enough for 30,000 homes. Cordell Hull Reservoir ranks 38th of 422 among Corps facilities for recreation with 2,144,568 project visits in FY 2012, which is the year of record for visitation, with an estimated \$43,000,000 in trip spending. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$1,761,000 shared between business lines as follows: HYD – 31%, NAV – 9%, and REC – 60%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$200,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dale Hollow Lake, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Dale Hollow Dam and Lake is located on the Obey River, approximately 5 miles east of Celina, Tennessee. The project covers portions of the Counties of Clay, Pickett and Overton in Tennessee, and the Counties of Cumberland and Clinton in Kentucky. The project consists of a concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$6,756,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$7,255,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project and non-routine maintenance to replace the main water line for the Damsite recreation complex (\$250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,824,500 O: \$6,246,500 T: \$9,071,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$1,747,000 - Funding provides for routine O&M for recreation.

H: \$4,850,000 - Funding provides for routine O&M for the hydroelectric plant, replacement of existing SCADA system (\$800,000), and rehabilitation of powerhouse elevator (\$850,000).

EN: \$605,000 - Funding provides for the routine O&M for environmental stewardship.

WS: \$35,000 - Funding provides for routine O&M for water supply.

OTHER INFORMATION: The hydropower plant generates 126,000 megawatt-hours annually, enough for 10,500 homes. Dale Hollow Lake ranks 29th of 422 among the Corps facilities for recreation with 2,671,002 project visits in FY 2012, which is the year of record for visitation, with an estimated \$63,870,000 in trip spending. Revenues collected and sent to the U.S. Treasury in FY15 under water supply contracts was \$323,000. The project prevented \$301,318,000 in damages through FY 2015. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$1,834,000 shared between business lines as follows: HYD – 57% and FRM – 43%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$48,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J Percy Priest Dam & Reservoir, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: J Percy Priest Dam and Reservoir, TN is located on the Stones River, 6.8 miles above its confluence with the Cumberland River (mile 205.9) in Davidson County, TN. The project consists of a combination earthen and concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$5,009,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) and continuation of an ongoing water reallocation study.

FISCAL YEAR 2017 ALLOCATION: \$5,244,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M; continuation of an ongoing water reallocation study; and replacement of aging water lines with recurring leaks at three recreation areas (\$235,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,019,000 O: \$4,573,000 T: \$5,592,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$2,116,000 - Funding provides for routine O&M for recreation.

H: \$1,289,000 - Funding provides for routine O&M for hydropower facilities and Replace existing SCADA system.

EN: \$213,000 - Funding provides routine O&M for environmental stewardship.

WS: \$75,000 - Funding provides for routine O&M for water supply and preparation of water storage agreements per the terms of a settlement agreement with the Town of Smyrna.

OTHER INFORMATION: The hydropower plant generates 75,000 megawatt-hours of energy annually, enough to supply 6,000 homes. J. Percy Priest ranks 8th of 422 among the Corps facilities for recreation with 5,874,744 project visits in FY 2012 with an estimated \$118,000,000 in trip spending. Revenues returned to the U.S. Treasury under Water Supply Agreements for FY 2015 was \$93,000. The project prevented \$317,174,000 in damages through FY 2015. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$1,899,000 shared between business lines as follows: FRM – 42%, HYD – 7%, and REC – 51%. The Joint activities are routine O&M.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$20,000. There was an additional \$28,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Northwest Tennessee Regional Harbor, TN

AUTHORIZATION: Rivers and Harbors Act of 1960, Sec. 107

LOCATION AND DESCRIPTION: This slack water harbor is located at Mississippi River mile 900.0 on the left descending bank in Lake County near Tiptonville, Tennessee. The approved channel dimensions are 9 feet deep by 130 feet wide by 9,000 feet long ending at a 300-foot turning basin. The project provides for Federal assistance, not to exceed \$5,000,000, for maintenance of the navigation channel for year-round access to the harbor facilities.

FISCAL YEAR 2016 ALLOCATION: \$380,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and turning basin. Funds were also used for limited dredging in the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$710,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect limited navigation channel surveys. Additional funds are being used to perform dredging of the mouth and limited inner harbor channel to authorized dimensions (\$700,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$10,000 T: \$10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,000 – Funds will be used for the collection of limited navigation channel surveys. This information will be provided to local sponsors for use in determining the channel condition and navigation hazards.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The harbor is known locally as “Port of Cates Landing”. The harbor construction was completed in April 2011 and turned over to the sponsor in November 2011. The local sponsor is currently constructing the harbor service facilities. Until tonnage is recorded, this harbor will be categorized as a low use harbor. The Northwest Tennessee Regional Port Authority is the local sponsor.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Mississippi Valley

District: Memphis

Northwest Tennessee Regional Harbor,
Lake County, TN

APPROPRIATION NAME: Operation and Maintenance

PROJECT NAME: Old Hickory Lock and Dam, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Old Hickory Lock and Dam is located in Metropolitan Nashville in Davidson County, TN. The project consists of an 84-foot by 400-foot lock, concrete gravity and earthen-fill dam, a hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2016 ALLOCATION: \$10,245,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the project and for non-routine maintenance, including replacement of a water line (\$200,000); replacement of a restroom and elimination of a waste water treatment plant at recreation area (\$345,000); and repair of oil leaks at the main power transformer (\$569,000).

FISCAL YEAR 2017 ALLOCATION: \$9,636,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,577,000 O: \$8,749,000 T: \$10,326,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,623,000 – Funding provides for routine O&M for navigation.

FRM: N/A

RC: \$1,877,000 – Funding provides for routine O&M for recreation.

H: \$2,900,000 – Funding provides for routine O&M for the hydropower plant.

EN: \$721,000 – Funding provides for routine O&M for environmental stewardship.

WS: \$30,000 - Funding provides for routine O&M for water supply.

OTHER INFORMATION: Old Hickory Lock processed 2,864,370 tons of waterborne commerce in 2014. Coal and industrial chemicals are the dominant commodities. Navigation through Old Hickory Lock is the only coal fuel source for one of the Tennessee Valley Authority's major electric generating stations, Gallatin Steam Plant. The hydropower plant generates 482,000 megawatt-hours of energy annually, enough for 40,200 homes. The recreation areas ranks third of 422 among Corps' facilities with 7,902,347 project visits in FY 2012, which is the year of record for visitation, with an estimated \$177,000,000 in trip spending. As a multiple purpose project with power, the project's budget includes Joint activities, with a total allocation of \$2,175,000 shared between business lines as follows: HYD – 63% and NAV – 37%. These Joint activities are routine O&M.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$25,000. There was an additional \$175,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tennessee River, TN

AUTHORIZATION: Tennessee Valley Authority Act of 1933. (P.L. 73-17)

LOCATION AND DESCRIPTION: The Tennessee River is formed by the junction of the French Broad and Holston Rivers in eastern Tennessee. The river flows through northern Alabama to the northeast boundary of Mississippi, and then across Tennessee and Kentucky before merging into the Ohio River at Paducah, Kentucky. The Tennessee River navigation system has 10 locks and 780 miles of navigable channel. There are 150 terminals (13 municipal, 15 governments and 122 private), 79 of which have railroad connections. Principal commodities are petroleum products, stone, sand, gravel, coal, coke, grain, chemicals, iron and steel.

FISCAL YEAR 2016 ALLOCATION: \$23,521,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) and non-routine maintenance work including miter gate repairs at Pickwick Locks and Dam (\$715,000); purchase of material and equipment floating guard wall anchorages at Kentucky, Wilson, and Guntersville Locks (\$974,000); installation of brakes for miter gate and culvert valve machinery at Ft. Loudon (\$260,000) and Watts Bar (\$260,000); and dredging at Post Oak and Looney, Ft. Loudon Lake (\$1,572,000).

FISCAL YEAR 2017 ALLOCATION: \$26,136,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provided for routine O&M and non-routine maintenance work to install new culvert valves at Pickwick Lock (\$3,541,000), replace failed cell 209 and reband mooring cells 3 and 4 at Pickwick Landing Lock and Dam (\$1,200,000), and replace mooring cells at Wheeler Lock and Dam (\$1,550,000).

BUDGETED AMOUNT FOR FY 2018: M: \$5,889,000 O: \$16,689,000 T: \$22,578,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$22,578,000 – Funding provides for routine O&M for navigation. Non-routine maintenance is also funded to dredge Tennessee River Miles 196-197 at Diamond Island (\$2,200,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Locks on the Tennessee River passed 69,230,080 tons of commodities in 2015 and are the most economical means of bulk material transport for 780 miles of navigation channel. The average age of locks is 59 years. There is considerable river use for military and rocket booster shipments and oversized components, such as nuclear steam generators. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam, and nuclear plants. The Power Service shop at Muscle Shoals performs maintenance on dam and lock components for multiple U.S. Army Corps of Engineers Districts.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$379,000. There was an additional \$4,400 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wolf River Harbor, TN

AUTHORIZATION: National Industrial Recovery Act of 1933; modified by the Flood Control Act of 1958.

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River at mile 737.0, near Memphis in Shelby County, Tennessee. The project provides for a navigation channel 9 feet deep by 250 feet wide at low water from the mouth to Keel Avenue (mile 1.75) and 200 feet wide from Keel Avenue to mile 3.0. This harbor contains multiple embarkation locations for public use to include public boat ramps, marinas and industries for shipping agricultural and industrial materials.

FISCAL YEAR 2016 ALLOCATION: \$748,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to collect hydrographic survey data in the harbor and perform limited dredging of the mouth and inner harbor. Funds were also used for dredging the harbor channel to authorized dimensions.

FISCAL YEAR 2017 ALLOCATION: \$1,366,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to collect hydrographic survey data in the harbor and perform limited harbor dredging to authorized channel dimensions.

BUDGETED AMOUNT FOR FY 2018: M: \$1,369,000 O: \$16,000 T: \$1,385,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,385,000 – Funds will be used for the collection of navigation channel surveys and to perform maintenance dredging of the harbor to authorized channel dimensions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Five-year average commercial tonnage is 727,000 tons. The harbor contains the US Coast Guard boat basin for the Cutter Kankakee at the USCG Sector Lower Mississippi River Station.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

TEXAS

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Aquilla Lake, TX

AUTHORIZATION: Flood Control Act of 1968

LOCATION AND DESCRIPTION: Aquilla Lake is located in Hill County, 0.8 miles southwest of Hillsboro, Texas. The project consists of an earth fill dam and uncontrolled concrete spillway with a total storage capacity of 146,500 acre-feet for flood control, water supply, and sediment. There is one undeveloped recreation area of 957 acres and six access areas totaling 27 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,710,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,093,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements.

BUDGETED FOR FY 2018: M: \$219,000 O: \$861,000 T: \$1,080,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$805,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$132,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas, including ranger patrols, consolidated service contracts, utilities, and real estate management.

H: N/A

EN: \$135,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$8,000 - Funds will be used to manage water storage agreements.

OTHER INFORMATION: Aquilla Lake is estimated to have prevented \$63 million in cumulative flood damages. In FY 2012, over 127,000 recreation visits occurred with an estimated local economic impact of \$4 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$45,000. There was an additional \$463,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arkansas-Red River Basins Chloride Control – Area VIII, TX

AUTHORIZATION: Flood Control Act of 1966, as modified by the Flood Control Act of 1970, and as amended by the Water Resources Development Acts of 1974, 1976, and 1986

LOCATION AND DESCRIPTION: The project is located within the Wichita River basin in northern Texas. The project consists of a low flow collection dam on the South Fork of the Wichita River and the Truscott Brine Lake on the North Fork of the Wichita River.

FISCAL YEAR 2016 ALLOCATION: \$1,643,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,575,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam and other facilities, and for reaccreading the computer control system that operates the water pumps.

BUDGETED AMOUNT FOR FY 2018: M: \$55,000 O: \$1,739,000 T: \$1,794,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$1,794,000 – Funding will be used for routine O&M to include water quality control and monitoring, wildlife management, monitoring of endangered species, cultural resources compliance activities, and natural resources management.

WS: N/A

OTHER INFORMATION: The Red River Authority of Texas has partnered with a private company and proposed to enhance the method of salt water containment and evaporation through the use of salt gradient solar ponds. These ponds could be used to generate renewable electricity and sold to nearby military installations to assist them in meeting their energy sustainability goals. The implementation of this proposal could decrease project O&M costs and potentially decrease future construction costs associated with completion of Areas VII and X of the project.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$71,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bardwell Lake, TX

AUTHORIZATION: P.L. 86-399 of 1960

LOCATION AND DESCRIPTION: Bardwell Lake is located in Ellis County near the City of Ennis, Texas. The project consists of an earth fill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 85,400 acre-feet. It also has seven recreation areas covering 1,238 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,345,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources, and water supply. Also, non-routine maintenance packages included repair rip rap (\$262,000), spillway joint repair (\$250,000) and embankment repairs (\$500,000).

FISCAL YEAR 2017 ALLOCATION: \$1,629,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources and water storage. Also, non-routine maintenance packages includes maintenance for recreation (\$95,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,509,000 **O:** \$1,727,000 **T:** \$3,236,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,288,000 – Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures insuring the project is performing as designed. There is a total of \$20,000 for sustainability work to replace security lighting at Project office.

RC: \$1,747,000 – Funds will be used for routine operation and maintenance of recreation areas. There is a total of \$25,000 for sustainability work to replace water heaters in the park restrooms and \$880,000 to replace deteriorating water lines.

H: N/A

EN: \$187,000 – Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, and water quality monitoring.

WS: \$14,000 – Funds will be used to manage water supply agreements.

OTHER INFORMATION: Bardwell Lake is estimated to have prevented \$51 million in cumulative flood damages. Over 106,670 recreation visits with a local estimated economic impact of more than \$3 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$286,000. There was an additional \$813,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Belton Lake, TX

AUTHORIZATION: Flood Control Act of 1946 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Belton Lake is located near the City of Belton on the Leon River in Bell and Coryell Counties of Texas. The project consists of an earth fill dam, an uncontrolled spillway, a gated outlet structure, and reservoir. The project provides flood control for 3,560 square miles of the Brazos River Basin with 644,200 acre-feet of flood control storage. Fourteen recreation areas cover 2,983 acres.

FISCAL YEAR 2016 ALLOCATION: \$8,037,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources, and water supply. Non-routine maintenance packages include downstream slide repairs (\$3,000,000), and park flood damage repairs (\$430,000).

FISCAL YEAR 2017 ALLOCATION: \$4,135,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of dams, recreation areas, cultural resources, and water supply. Non-routine maintenance packages include \$165,000 for civil works land data migration real estate/Geographical Information Systems.

BUDGETED AMOUNT FOR FY 2018: M: \$1,399,000 **O:** \$3,256,000 **T:** \$4,655,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,040,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures insuring the project is performing as designed. In addition, a non-routine package to repair service flood gates (\$750,000).

RC: \$1,976,000 - Funds will be used for routine operation and maintenance of recreation areas and public use areas.

H: N/A

EN: \$628,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities. In addition, a non-routine work package will be funded to continue work on the Master Plan report (\$250,000).

WS: \$11,000 - Funds will be used for the routine management of water supply agreements.

OTHER INFORMATION: Belton Lake is estimated to have prevented \$858 million in cumulative flood damages. Over 1,881,820 recreation visits with an estimated local economic impact of \$62 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,293,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Benbrook Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Benbrook Lake is 10 miles southwest of Fort Worth in Tarrant County, Texas. It is located on the Clear Fork of the Trinity River, 15 river miles upstream from its confluence with the West Fork of the Trinity River. This project consists of a rolled earth fill dam (9,130 feet long by 130 feet high), and an uncontrolled spillway (500 feet wide). The flood control storage capacity is 170,350 acre-feet. Benbrook Lake has six recreation areas covering 3,033 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,586,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dams, parks and public use areas, cultural resources, water storage and non-routine maintenance. Non-routine package included replacement of light fixtures (\$7,000).

FISCAL YEAR 2017 ALLOCATION: \$2,582,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources, water storage and non-routine maintenance. Non-routine package includes wildlife and habitat management (\$15,000).

BUDGETED AMOUNT FOR FY 2018: M: \$901,000 **O:** \$2,467,000 **T:** \$3,368,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,320,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures insuring the project is performing as designed. Non-routine activities include upgrading the electrical system (\$50,000). There is a total of \$20,000 for sustainability work to connect and purchase municipal water source and eliminate costs associated with operating a well.

RC: \$1,830,000 - Funds will be used for routine operation and maintenance of parks and other public use areas. There is a total of \$360,000 for modernization of recreation area groundwater wells.

H: N/A

EN: \$205,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$13,000 - Funds will be used for routine management of water supply agreements.

OTHER INFORMATION: Benbrook Lake is estimated to have prevented \$10 billion in cumulative flood damages since its construction. Over 621,600 recreation visits with an estimated local economic impact of \$19 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$269,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brazos Island Harbor, TX

AUTHORIZATION: House Document 16, 71st Congress, 2nd Session, 1930 and P.L. 99-662

LOCATION AND DESCRIPTION: The Brazos Island Harbor deep draft navigation project consists of a 42 feet deep by 300 feet wide by approximately 22-miles long channel, extending from the Gulf of Mexico to the Port of Brownsville and Port Isabel. The 300-foot wide harbor has a jetty-protected entrance channel with an authorized depth of 44 feet connecting to the main channel with an authorized depth of 42 feet. The main channel leads to the Turning Basin at the Port of Brownsville, which has an authorized depth of 36 feet. A side channel with an authorized depth of 36 feet leads to the Port Isabel and an adjacent shallow-draft fishing boat harbor. The project also includes two rock jetties at the channel inlet, 1.39 and 0.96 miles in length.

FISCAL YEAR 2016 ALLOCATION: \$2,423,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging of the Jetty Channel to project depth and associated environmental requirements such as sea turtle trawling associated with hopper dredging.

FISCAL YEAR 2017 ALLOCATION: \$2,700,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine maintenance dredging of the Jetty Channel to project depth and associated environmental requirements such as sea turtle trawling associated with hopper dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$2,375,000 O: \$325,000 T: \$2,700,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,700,000 – Funds will be used to perform routine maintenance dredging of the Jetty Channel to project depth for \$2,345,000 with associated environmental requirements such as sea turtle trawling for \$30,000, and \$325,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Brownsville is ranked 67th in the Nation with respect to commercial tonnage (6.9 million tons total in 2014). The major commodities moved through the Port of Brownsville include: petroleum products, ores and minerals, steel and other metals, vegetable oils, and grains. The Brownsville Ship Channel also supports commercial and military ship breaking operations. The project provides a vital link in the international transport chain.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,260,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffalo Bayou and Tributaries, TX

AUTHORIZATION: House Document 456, 75th Congress, 2nd Session 1938 and modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: The Buffalo Bayou and Tributaries project is located on Buffalo Bayou and Mayde Creek on the west side of the City of Houston, in Harris and Fort Bend Counties, Texas. Addicks Dam and Reservoir is an earthen dam 61,166 feet long and 48.5 feet above the Mayde Creek streambed with a storage capacity of 200,000 acre-feet. Barker Dam and Reservoir is an earthen dam 71,960 feet long and 36.5 feet above the Buffalo Bayou streambed with a storage capacity of 209,000 acre-feet. These reservoirs are designed to reduce flooding in the City of Houston.

FISCAL YEAR 2016 ALLOCATION: \$2,586,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operation and maintenance (O&M) activities at Buffalo Bayou and Tributaries performing critical routine operations; performing Critical Infrastructure Protection Requirements (CIPR) audits for both dams and reservoirs and the project buildings; performing environmental compliance activities for Flood Risk Management (FRM); performing bridge inspection activities; performing dam safety annual inspection activities/Operation Condition Assessment (OCA); dam maintenance removal of unwanted vegetation from the structure; dam safety instrumentation; and to perform strategic sustainability energy audits.

FISCAL YEAR 2017 ALLOCATION: \$2,912,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used for O&M activities at Buffalo Bayou and Tributaries performing critical routine operations.

BUDGETED AMOUNT FOR FY 2018: M: \$503,000 O: \$2,315,000 T: \$2,818,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,818,000 - Funds will be used to perform routine operations and management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Both dams were screened by the National Dam Safety Cadre and were reclassified as Dam Safety Action Classification (DSAC)-I (the highest risk category) due to their location on the west side of the City of Houston, TX and the high population at risk.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$307,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canyon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Canyon Lake is located in Comal County, 12 miles northwest of New Braunfels, Texas, on the Guadalupe River. The project consists of a rolled earth fill dam, an uncontrolled spillway, and one conduit controlled by two slide gates. The flood control storage is 354,600 acre-feet. Eight recreation areas cover 1,544 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,058,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dams, parks and public use areas, cultural resources, and water storage agreements. Non-routine maintenance activity includes master plan compliance (\$200,000), service bridge repairs (\$300,000) and flood damage repairs at Crane's Mill Park (\$200,000).

FISCAL YEAR 2017 ALLOCATION: \$3,711,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of dams, parks and public use areas, cultural resources, and water storage agreements. Non-routine packages include \$80,000 to design the repair of conduit liner and eroded areas and \$100,000 to stabilize the west pier, repair cracks, and patch concrete along the service bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$307,000 O: \$3,142,000 T: \$3,449,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,542,000 - Funds will be used for routine operation and maintenance dams, levees, and other flood risk management structures.

RC: \$1,580,000 - Funds will be used for operation and maintenance of parks and other public use areas.

H: N/A

EN: \$317,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$10,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Canyon Lake is estimated to have prevented \$702 million in cumulative flood damages. Over 806,770 recreation visits with an estimated local economic impact of \$29 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$123,000. There was an additional \$590,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channel to Harlingen, TX

AUTHORIZATION: House Document 402, 77th Congress, First Session

LOCATION AND DESCRIPTION: The project is located in the vicinity of Rio Hondo and Harlingen in Cameron and Willacy Counties, Texas. The Channel to Harlingen shallow draft navigation project consists of a 12 foot deep by 125 foot wide channel that is 25.8 miles long. It extends from its junction with the Gulf Intracoastal Waterway (GIWW), through the Arroyo Colorado, to the Turning Basin at the facilities at Harlingen. The project also includes a barge-mooring basin near the channel's junction with the GIWW.

FISCAL YEAR 2016 ALLOCATION: \$3,063,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for dredging the Main Channel and Turning Basin of the Channel to Harlingen and for disposal area management improvements to Placement Areas 7, 21, and 23.

FISCAL YEAR 2017 ALLOCATION: \$3,145,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the Main Channel to project depth, the Turning Basin to advance maintenance depth, and hot spot dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$2,350,000 O: \$50,000 T: \$2,400,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,400,000 – Funds will be used for hot spot dredging of the Main Channel and Turning Basin for \$600,000, routine maintenance dredging of the Main Channel and Turning Basin to project depth for \$750,000, project coordination for \$50,000, and advance maintenance dredging for \$1,000,000.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Harlingen moves bulk cargo and petroleum between Harlingen and other areas in South Texas and Mexico. In 2014, the Port of Harlingen moved approximately one million tons of commercial cargo, with sugar and chemicals being the most common commodities. While sugar is among the largest export, the port also imports petroleum, cement, sand and fertilizer. South Texas sugar cane is shipped by barge from the Port of Harlingen, via the GIWW, Mississippi River, and Ohio River to the Domino sugar manufacturing facility in New York. Over 90-percent of all fertilizer products and 70 percent of all gasoline products for south Texas arrive by barge through the Port of Harlingen.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$920,000. There was an additional \$501,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Galveston

Channel to Harlingen, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channel to Port Bolivar, TX

AUTHORIZATION: Senate Document 99, 90th Congress, Second Session

LOCATION AND DESCRIPTION: The Channel to Port Bolivar shallow draft navigation project consists of a 14-foot deep by 200-foot wide channel that is 950-feet long. It extends from the entrance to Galveston Bay (Bolivar Roads) northward to the west point of Bolivar Island. The channel is heavily utilized by Texas Department of Transportation and the Galveston-to-Port Bolivar Ferry System.

FISCAL YEAR 2016 ALLOCATION: \$166,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform maintenance dredging of 950 feet of channel reach to the authorized project depth.

FISCAL YEAR 2017 ALLOCATION: \$300,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform maintenance dredging of 950 feet of channel reach to the authorized project depth and Bolivar Ferry Terminal to advance maintenance depth.

BUDGETED AMOUNT FOR FY 2018: M: \$50,000 O: \$0 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Funds will be used to perform maintenance dredging of 950 feet of channel reach to the authorized project depth.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Galveston-to-Port Bolivar ferry route provides a critical link between Galveston Island and Bolivar Island, serving as a hurricane evacuation route and quick response for police, fire, and emergency vehicles. The Galveston-to-Port Bolivar ferry runs as frequent as every 15 minutes and transports approximately 1.4 million vehicles per year.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$216,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Corpus Christi Ship Channel, TX

AUTHORIZATION: Senate Document 99, 90th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Corpus Christi Ship Channel (CCSC) is a 45 foot deep by 400 foot wide channel that is 34 miles long. It is a deep-draft navigation project, extending from the Gulf of Mexico, through a jetty-protected inlet at Aransas Pass, across Corpus Christi Bay, to port facilities at Ingleside, La Quinta, and the Port of Corpus Christi.

FISCAL YEAR 2016 ALLOCATION: \$12,781,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform maintenance dredging of the Inner Basin to Beacon Channel Number (BCN) 82 to advance maintenance depth; maintenance dredging of the Entrance Channel to project depth with associated environmental requirements such as sea turtle trawling; and maintenance dredging of non-federal berthing areas.

FISCAL YEAR 2017 ALLOCATION: \$12,093,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform maintenance dredging of the Inner Basin to Viola Turning Basin to project depth; dredging of the Inner Basin to Viola Turning Basin, Inner Basin to BCN 82, and LaQuinta Channel to advance maintenance depth; and Placement Area 10 improvements. Additional funds are being used for donor/energy transfer port activities (\$693,000).

BUDGETED AMOUNT FOR FY 2018: M: \$10,250,000 O: \$550,000 T: \$10,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$10,800,000 – Funds will be used to perform maintenance dredging of the Inner Basin to Viola Turning Basin and LaQuinta Channel to advance maintenance depth for \$10,250,000, and \$550,000 for project coordination funding needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The CCSC is ranked sixth in the Nation with respect to commercial tonnage (84.9 million tons total in 2014). The CCSC is also designated as a Strategic Harbor, as military personnel, equipment and supplies are deployed and redeployed through this port. The major commodities that come through the port include crude oil, gasoline, fuel oil, bauxite, feed stock, and wheat. Maintenance of the channel is critical for oil and product tankers transiting to and from the refineries in Corpus Christi, and to the increased need for full channel limits to accommodate new tension-leg platform and semi-submersible oil rigs utilizing the channel.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$552,000 of which \$0 was for Donor/Energy Ports funds. There was an additional \$235,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet

was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

AUTHORIZATION TITLE: Operation and Maintenance

PROJECT NAME: Denison Dam, Lake Texoma, TX

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Denison Dam, Lake Texoma is located on the Red River at river mile 725.9, about five miles northwest of the City of Denison in Grayson County, Texas. This is a multi-purpose project authorized for flood control, water supply, hydropower, regulation of Red River flows, navigation, and recreation. The project has two 35-megawatt hydropower generator units. At the top of the power pool the lake covers 74,686 acres.

FISCAL YEAR 2016 ALLOCATION: \$13,134,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities. Non-routine maintenance activities included: enhancing interim repairs to the Cumberland Levee breach for \$1,000,000; continuing design work on the permanent repair of the Cumberland Levee breach for \$600,000; awarding a contract to replace 3 of the flood gate hoist systems for \$3,100,000; continuing work on the project Master Plan update for \$400,000; and installing light-emitting diode (LED) lighting in campgrounds at the project for \$17,000.

FISCAL YEAR 2017 ALLOCATION: \$17,854,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the O&M of the dam, powerhouse, and other facilities, to continue work on the project Master Plan, undertake permanent repairs to the breach in the Cumberland Levee, and to relocate a damaged water line currently residing under the lake bed to decrease potable water loss.

BUDGETED AMOUNT FOR FY 2018: M: \$1,860,000 O: \$6,721,000 T: \$8,581,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,227,000 – Funding will be used for routine O&M on structures.

RC: \$2,589,000 – Funding will be used for routine O&M of parks and other public use areas.

H: \$2,046,000 – Funding will be used for routine O&M of the powerhouse, generators and associated power plant equipment. A total of \$300,000 will be used to purchase and install a new sequential event recorder at the powerhouse.

EN: \$980,000 – Funding will be used for routine environmental compliance activities. A total of \$247,000 will be used to undertake shoreline erosion repair and subsequent monitoring on the Shawnee Creek portion of the lake.

WS: \$50,000 – Funding will be used to monitor water usage; manage current water storage agreements; and track water storage contract billing and payments.

OTHER INFORMATION: Since construction in 1944, Denison Dam, Lake Texoma is estimated to have prevented over \$1 billion in cumulative flood damages. The budgeted amount for the project includes \$689,000 for project features jointly used by multiple business lines: FRM 51% and HYD 49%. Over 5,073,000 recreation visits with an estimated local economic impact of \$68 million occurred at Denison Dam, Lake Texoma in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$758,000. There was an additional \$54,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Estelline Springs Experimental Project, TX

AUTHORIZATION: Flood Control Act of 1966

LOCATION AND DESCRIPTION: The Estelline Springs Experimental Project is one-half mile east of the town of Estelline in Hall County, Texas, located on the Prairie Dog Town Fork of the Red River. This is a single purpose project authorized for water quality control. The project consists of an earth ring dike nine feet high and 340 feet in diameter surrounding Estelline Springs.

FISCAL YEAR 2016 ALLOCATION: \$33,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operations and maintenance (O&M) at the project, including wildlife management, cultural resources compliance activities, natural resources management, and water quality monitoring.

FISCAL YEAR 2017 ALLOCATION: \$35,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for the operation and maintenance of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$5,000 O: \$30,000 T: \$35,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$35,000 – Funding will be used for routine O&M to include wildlife management, cultural resources compliance activities, natural resources management, and water quality monitoring.

WS: N/A

OTHER INFORMATION: Construction of the Estelline Springs Experimental Project was completed in 1964.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ferrells Bridge Dam – Lake O’ The Pines, TX

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located eight miles west of Jefferson located on Cypress Creek in Marion, Harrison, Upshur, Morris, Camp, and Titus Counties of Texas. This project consists of an earth fill embankment and two conduits. Flood control storage is 587,200 acre-feet and water supply storage is 279,900 acre-feet. Thirty-four recreation areas comprise 758 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,374,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dam, recreation areas, cultural resources, water storage, and non-routine maintenance to repair piezometers (\$150,000).

FISCAL YEAR 2017 ALLOCATION: \$4,210,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of dam, recreation areas, cultural resources, water storage, and non-routine maintenance to include dewatering the stilling basin (600,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,010,000 **O:** \$3,031,000 **T:** \$4,041,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,319,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures.

RC: \$1,799,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$915,000 - Funds will be used for routine operation and maintenance to identify, maintain, and protect natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities. In addition, a non-routine work package will be funded to continue work on the Master Plan report (\$300,000).

WS: \$8,000 - Funds will be used for routine management of water supply agreements.

OTHER INFORMATION: Ferrells Bridge Dam - Lake O’ The Pines is estimated to have prevented \$104 million in cumulative flood damages. Over 959,980 recreation visits with an estimated local economic impact of \$34 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$61,000. There was an additional \$165,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Freeport Harbor, TX

AUTHORIZATION: House Document 289, 93rd Congress, 2nd Session

LOCATION AND DESCRIPTION: The Freeport Harbor deep draft navigation project consists of a 45-foot deep by 400-foot wide channel that is 8.5-miles long, extending from the Gulf of Mexico, through a jetty-protected inlet, to a turning basin at the Freeport port facilities. The project also includes two rock jetties, 1.46 and 1.64 miles in length.

FISCAL YEAR 2016 ALLOCATION: \$8,317,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging of the Freeport Entrance Channel to advance maintenance depth with associated environmental requirements such as sea turtle trawling; dredging the Freeport Harbor to Matagorda Bay reach; and dredging of the Jetty Channel to project depth.

FISCAL YEAR 2017 ALLOCATION: \$8,300,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the Freeport Entrance Channel to advance maintenance depth with associated environmental requirements such as sea turtle trawling.

BUDGETED AMOUNT FOR FY 2018: M: \$5,200,000 O: \$400,000 T: \$5,600,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,600,000 – Funds will be used for maintenance dredging of the Freeport Entrance Channel to project depth for \$5,170,000 with associated environmental requirements such as sea turtle trawling for \$30,000, and \$400,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Freeport is ranked 32nd in the Nation with respect to commercial tonnage (22.3 million tons total in 2014). The principle imports to the Port of Freeport include crude oil, fruit, textiles, aggregate, paper goods and plastics. The primary exported commodities of the Port of Freeport include automobiles, chemicals, clothing, food, paper goods and plastics.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,450,000. There was an additional \$221,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Galveston Harbor and Channel, TX

AUTHORIZATION: House Document 121, 92nd Congress

LOCATION AND DESCRIPTION: The Galveston Entrance Channel is the Entrance Channel for Galveston, Texas City, and the Houston Ship Channel. The Galveston Harbor deep draft navigation project consists of a 45-foot deep by 800-foot wide channel that is 23.9-miles long. The channel extends from the Gulf of Mexico, through a jetty-protected inlet, through the entrance of Galveston Bay, to the port facilities at Galveston Harbor.

FISCAL YEAR 2016 ALLOCATION: \$14,791,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging the Galveston Inner Harbor to advance maintenance depth; and shoreline stabilization of the Pelican Island placement area (PA).

FISCAL YEAR 2017 ALLOCATION: \$13,850,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for dredging the Galveston Entrance Channel to advance maintenance depth with associated environmental requirements such as sea turtle trawling.

BUDGETED AMOUNT FOR FY 2018: M: \$4,600,000 O: \$400,000 T: \$5,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,000,000 – Funds will be used for Pelican Island PA improvements for \$4,600,000 and \$400,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Galveston is ranked 49th in the Nation with respect to commercial tonnage (10.7 million tons total in 2014). The port's main exports are bulk grains, containers, machinery, vehicles, liner board and paper, carbon black, and light fuels. The Galveston Entrance Channel is utilized by all vessels transiting to the Port of Houston, Port of Texas City, and the Port of Galveston, which are ranked the 2nd, 15th, and 52th ports in the nation, respectively. The Galveston Entrance Channel is the busiest navigation channel in the nation with over 9,800 trips per year seen within the Galveston Entrance Channel. Galveston Harbor is also ranked 12th in the world for cruise lines and the number one cruise port in the Gulf of Mexico. The Port of Galveston welcomed over 1,200,000 passengers in 2013.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$683,000. There was an additional \$10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Galveston

Galveston Harbor and Channel, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: GIWW, Channel to Victoria, TX

AUTHORIZATION: Public Law 100-676

LOCATION AND DESCRIPTION: The Gulf Intracoastal Waterway, Channel to Victoria project is located in the vicinities of Seadrift and Victoria in Calhoun and Victoria Counties of Texas. The Channel to Victoria Project is a shallow-draft project 12-feet deep by 200-feet wide by 35.4-miles long, and extends from the Gulf Intracoastal Waterway at Mile 492 northwesterly across San Antonio Bay to the Port of Victoria. The associated Channel to Seadrift Project is 12-foot deep by 125-foot wide and 2-miles long from the Channel to Victoria, northeasterly, and terminating at the facilities at Seadrift.

FISCAL YEAR 2016 ALLOCATION: \$6,384,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform maintenance dredging of the Upper Reach to advance maintenance depth; placement area 3 improvements; and maintenance dredging of the Lower Reach.

FISCAL YEAR 2017 ALLOCATION: \$2,700,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform middle reach placement area improvements.

BUDGETED AMOUNT FOR FY 2018: M: \$3,450,000 O: \$50,000 T: \$3,500,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,500,000 – Funds will be used to perform maintenance dredging of the lower reach to project depth for \$3,450,000, and \$50,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Port of Victoria is ranked 74th in the Nation with respect to commercial tonnage (6.5 million tons total in 2014). This amount of tonnage is significant as the Port of Victoria is a shallow draft project; however, the port is ranked against deep draft ports in the Nation. A sharp increase in tonnage was realized in from 2.8 million tons in 2011 to 6.5 million tons in 2014. This increase is attributed to crude oil exports from the Eagle Ford Shale formation, through the Port of Victoria, to regional and national refineries at Corpus Christi, Houston, Port Arthur and Louisiana. Innovations in oil recovery technology (hydraulic fracturing or “fracking”) have re-energized oil production within the Eagle Ford Shale formation, located in the vicinity of the Port of Victoria. The increased tonnage is also attributed to the recent construction of the 1.1 million square-foot Caterpillar Corporation heavy equipment manufacturing facility located in Victoria Texas.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$373,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Southwestern

District: Galveston

GIWW, Channel to Victoria, TX

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Granger Lake, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: Granger Lake is located on the San Gabriel River in Williamson County, about 10 miles northeast of the City of Taylor, Texas. The project consists of a rolled earth fill dam and controlled outlet works with two hydraulically-operated gates. The conservation pool impoundment is 4,400 acres, government fee land consists of 13,602 acres, and flood control storage capacity is 178.600 acre-feet. Six recreation areas comprise 1,387 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,203,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of the dam, recreation areas, cultural resources, and water supply. Non-routine package includes \$305,000 for park repairs due to flooding and \$300,000 for erosion repairs on embankment.

FISCAL YEAR 2017 ALLOCATION: \$2,877,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for operation and maintenance of the dam, recreation areas, cultural resources, and water supply. Non-routine package includes \$250,000 for repairs to stilling basin and \$131,000 for periodic inspection.

BUDGETED AMOUNT FOR FY 2018: M: \$322,000 O: \$1,989,000 T: \$2,311,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$998,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures.

RC: \$1,020,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$285,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$8,000 - Funds will be used for routine management of water supply agreements.

OTHER INFORMATION: Granger Lake is estimated to have prevented \$92 million in cumulative flood damages. Over 253,670 recreation visits with an estimated local economic impact of \$8 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,415,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grapevine Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Grapevine Lake is near the City of Grapevine located in Denton and Tarrant Counties, 20 miles northwest of Dallas. It is at river mile 11.7 on Denton Creek in the Trinity River Basin. The project consists of a rolled earth fill dam, a 500 foot long uncontrolled concrete ogee weir spillway, and a conduit controlled by two broom-type gates. The flood storage capacity is 243,050 acre-feet and water supply storage is 158,900 acre-feet. Twelve recreation areas cover 3,660 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,209,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dams, parks and public use areas, cultural resources, water storage agreements. Non-routine maintenance packages included repair of emergency spillway chute slab joints \$250,000, repair seepage area \$350,000, repair aerobic septic system \$50,000, and embankment slide repairs \$1,000,000.

FISCAL YEAR 2017 ALLOCATION: \$3,045,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 will be used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources and water storage.

BUDGETED AMOUNT FOR FY 2018: M: \$1,566,000 **O:** \$2,728,000 **T:** \$4,294,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,838,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures. In addition, a non-routine work package is planned to replace emergency slide gates (\$1,000,000).

RC: \$1,155,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$291,000 - Funds will be used for routine operation and maintenance for natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$10,000 - Funds will be used for routine management of water supply agreements.

OTHER INFORMATION: Grapevine Lake is estimated to have prevented \$20 billion in cumulative flood damages. Over 2,694,420 recreation visits with an estimated local economic impact of \$81 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$765,000. There was an additional \$203,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Fort Worth

Grapevine Lake, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, TX

AUTHORIZATION: Public Law 77-675 authorized the Laguna Madre Reach, and the Water Resources Development Act of 1996 authorized the work at Aransas National Wildlife Refuge

LOCATION AND DESCRIPTION: The Texas portion of the Gulf Intracoastal Waterway (GIWW) navigation project extends from the Sabine River to Port Isabel, Texas, and includes several tributary channels. It consists of a 12-foot deep by 125-foot wide, shallow-draft channel, 423 miles long, and traverses the entire Texas Coast. The GIWW project also includes flood gates at the Brazos River and lock navigation structures at the Colorado River. Mooring basins and buoys are maintained in 11 separate locations along the length of the GIWW. The mooring basins support the heavy barge traffic, which totaled over 12,000 trips per year in FY 2013.

FISCAL YEAR 2016 ALLOCATION: \$35,647,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for operations and maintenance (O&M) of the Brazos River Floodgates (BRFG) and Colorado River Locks (CRL); maintenance and repairs at BRFG & CRL; dredging from Rollover to Causeway to advance maintenance depth; dredging from Corpus Christi to Port Isabel to advance maintenance depth; dredging from Brazos River to Boggy Bayou to advance maintenance depth; shoreline stabilization at Placement Areas 93 and 112-B; construction of Beneficial Use Site B; mooring buoy maintenance and debris removal; completion of the High Island to Brazos preliminary assessment study for placement area capacity; real estate easement documentation and recording; maintenance dredging of the Channel to Palacios reach; purchasing of mooring buoys for various sites located along the GIWW; and relocation and re-spacing of existing mooring buoys.

FISCAL YEAR 2017 ALLOCATION: \$28,371,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for O&M at the BRFG for and at the CRL; maintenance dredging from Rollover to Causeway to project depth; dredging from Turnstake to Live Oak to advance maintenance depth; mooring buoy maintenance and procurement; improvements to Placement Areas 86 and 87; dredging Rollover to Causeway to advance maintenance depth; maintenance and repairs at the BRFG and CRL; repairs to channel scour holes at the BRFG & CRL facilities; and constructing Aransas National Wildlife Refuge Beneficial Use sites.

BUDGETED AMOUNT FOR FY 2018: M: \$29,294,000 O: \$4,800,000 T: \$34,094,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$34,094,000 – Funds will be used for O&M costs at the BRFG for \$1,750,000 and at the CRL for \$1,750,000; maintenance dredging from Rollover to Causeway & Bolivar Flare to advance maintenance depth for \$5,100,000; dredging reach Across Aransas Bay and Matagorda Bay to advance maintenance depth for \$5,000,000; dredging reach from Freeport to Caney Creek to advance maintenance depth for \$5,600,000; maintenance dredging from Corpus Christi to Port Isabel to advance maintenance depth for \$7,600,000; electrical repairs at BRFG & CRL for \$900,000; maintenance and repair of existing mooring buoys for \$700,000; Placement Area (PA) Improvements at PA 88 for \$2,000,000 and 94-A and 100 for \$2,394,000; and \$1,300,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

Division: Southwestern

District: Galveston

Gulf Intracoastal Water, TX

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Texas portion of the GIWW provides for an intermodal link between the Texas deep draft and shallow draft ports. This intermodal link is essential in connecting Texas ports and waterways with the petrochemical industries and refineries staggered along the Texas coast. It also provides a critical link between the Texas ports with national coastal and inland port facilities. The GIWW is ranked the third Inland Waterway in the Nation with respect to commercial tonnage (126.8 million tons in 2014 with 74.2 million tons transiting the Texas portion of the GIWW).

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,113,000. There was an additional \$1,513,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hords Creek Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Hords Creek Lake is located in Coleman County, about 13 miles west of the City of Coleman, Texas. The project consists of an earth fill embankment and one conduit controlled by two gates. The water supply outlet is a cast iron pipe and the controlled conduit outlet has two slide gates. Flood control storage is 16,670 acre-feet and water supply storage is 5,684 acre-feet. Three recreation areas cover 1,215 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,539,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance activities of the dam, cultural resources, and parks and public use areas.

FISCAL YEAR 2017 ALLOCATION: \$1,734,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance activities of the dam, cultural resources, and parks and public use areas.

BUDGETED AMOUNT FOR FY 2018: M: \$350,000 O: \$1,686,000 T: \$2,036,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,049,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$872,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: N/A

EN: \$115,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: N/A

OTHER INFORMATION: Hords Creek Lake is estimated to have prevented \$1 million in cumulative flood damages. Over 24,710 recreation visits with an estimated local economic impact of \$710,000 occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$74,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Houston Ship Channel, TX

AUTHORIZATION: Section 101 (30) of the Water Resources Development Act of 1996 (P.L. 104-303)

LOCATION AND DESCRIPTION: The Houston Ship Channel (HSC) extends from the Bolivar Roads Channel near Galveston, through Galveston Bay, the San Jacinto River, Buffalo Bayou, to the port facilities in Houston. It is a deep draft navigation project consisting of a main channel with varying depths of 36 to 45 feet, 400 feet in width, and 55.4 miles in length. This project also provides for two 40-foot deep-draft channels to provide access to container terminals at Bayport and Barbours Terminal, and a deep- and shallow-draft channel extending 6.5 miles to the port facilities at Greens Bayou.

FISCAL YEAR 2016 ALLOCATION: \$41,726,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging of the following channel reaches: Morgans to Exxon's, Main Channel barge lanes, Redfish to Beacon Channel Number (BCN) 78, and Bayport Flare. Funds were also used for Placement Area (PA) shoreline stabilization and dewatering at Placement Area #14; continuation of the HSC Dredged Material Management Plan (DMMP), Rosa Allen placement area levee improvements, dredging the Light Draft channel reach, maintenance dredging of a non-Federal berth, dredging of the Bayport Flare and Redfish to BCN 78 to advance maintenance depth.

FISCAL YEAR 2017 ALLOCATION: \$32,693,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the following channel reaches to advance maintenance depth: Bayport Flare to Turning Basin; Bayport Flare, and Bolivar to Redfish; Improvements (including levee raising, dewatering, or shoreline stabilization) to the following Placement Areas: PA 14, Lost Lake, Spilman Island, Mid Bay, Peggy Lake, and Alexander Island; and completion of the ongoing Houston Ship Channel DMMP. Additional funds are being used for donor/energy transfer port activities (\$693,000).

BUDGETED AMOUNT FOR FY 2018: M: \$29,900,000 O: \$1,400,000 T: \$31,300,000 1/ 2/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$31,300,000 – Funds will be used for maintenance dredging of Morgans Point to Exxon and Barbours Cut Channel to project depth for \$5,700,000 and Bayport to Morgans Point & Bayport Ship Channel to advance maintenance depth for \$8,500,000. Funds will also be used for improvements (including levee raising, dewatering, or shoreline stabilization) to the following Placement Areas: Alexander Island for \$4,300,000; MidBay for \$7,100,000; and Lost Lake for \$4,300,000; and \$1,400,000 will be used for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

Division: Southwestern

District: Galveston

Houston Ship Channel, TX

OTHER INFORMATION: The Port of Houston is ranked second in the Nation with respect to commercial tonnage (234.3 million tons total in 2014). The principal imports and exports through the HSC include crude fertilizers, petroleum, organic chemicals, cereal, iron and steel, machinery, plastics and vehicles. The HSC services the Port of Houston, which provides \$118 billion in annual economic benefit to the state of Texas, and provides an estimated 1.2 million jobs. The HSC has 115 private and public facilities, including more than 160 deep-draft berths and a large number of barge docks and industries.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,125,000 of which \$0 was for Donor/Energy Ports funds. There was an additional \$53,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

2/ The Houston Ship Channel funding includes the Houston Ship Channel, Bayport Channel, Barbour's Terminal, and Greens Bayou Channels.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jim Chapman Lake, TX

AUTHORIZATION: Flood Control Act of 1954 as amended by the Flood Control Act of 1955

LOCATION AND DESCRIPTION: Jim Chapman Lake is four miles southeast of the City of Cooper in Delta and Hopkins Counties of Texas. It is located on the South Sulphur River. The project consists of an earth fill embankment, an uncontrolled spillway, and an outlet works tower. Five recreation areas cover 2,977 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,451,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dam, recreation areas, cultural resources, water storage, and non-routine maintenance to reshape and grade ditches to allow discharge of seepage (\$150,000).

FISCAL YEAR 2017 ALLOCATION: \$1,624,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of dam, recreation areas, cultural resources, and water storage. Non-routine package includes a bridge inspection (\$10,000).

BUDGETED AMOUNT FOR FY 2018: M: \$622,000 O: \$1,353,000 T: \$1,975,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,395,000 - Funds will be used for routine operation and maintenance of flood risk management structures.

RC: \$152,000 - Funds will be used for operation and maintenance of parks and other public use areas.

H: N/A

EN: \$417,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$11,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Jim Chapman Lake is estimated to have prevented \$25 million in cumulative flood damages. Over 295,842 recreation visits with an estimated local economic impact of \$11 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$8,000. There was an additional \$310,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Joe Pool Lake, TX

AUTHORIZATION: River and Harbor Act of 1965

LOCATION AND DESCRIPTION: Joe Pool Lake is located in Dallas, Tarrant, and Ellis Counties of Texas, ten miles southwest of the City of Dallas. The project consists of an earth fill dam with an uncontrolled concrete spillway. Total storage capacity is 304,500 acre-feet. There are five recreation areas covering 3,730 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,119,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,602,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 will be used for routine operation and maintenance (O&M) of the dam, recreation areas, cultural resources and water storage.

BUDGETED AMOUNT FOR FY 2018: M: \$602,000 O: \$1,646,000 T: \$2,248,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,690,000 - Funds will be used for routine operation and maintenance of flood risk management structures.

RC: \$148,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$385,000 - Funds will be used for routine operation and maintenance for natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities. In addition, a non-routine work package will be funded to continue work on the Master Plan report (\$250,000).

WS: \$25,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Joe Pool Lake is estimated to have prevented \$4 billion in cumulative flood damages since construction in 1968. Over 1,083,240 recreation visits with an estimated local economic impact of \$41 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$101,000. There was an additional \$286,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Fort Worth

Joe Pool Lake, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Kemp, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Lake Kemp is 40 miles southwest of the City of Wichita Falls in Wichita County, Texas, and located on the Wichita River at river mile 126.7. This is a multi-purpose project authorized for flood control and conservation. The project consists of a rolled earth fill embankment and spillway having a total length of 8,890 feet and a maximum height of 115 feet above the streambed. At the top of the flood control pool the lake covers 15,590 acres.

FISCAL YEAR 2016 ALLOCATION: \$299,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$277,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam and other facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$35,000 O: \$256,000 T: \$291,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$291,000 – Funding will be used for routine O&M and collection of dam safety data.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The City of Wichita Falls and Wichita County Water Improvement District Number 2 jointly own Lake Kemp. District Number 2 manages the conservation storage and the United States Army Corps of Engineers manages the flood control storage.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lavon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 and the Flood Control Acts of 1946 and 1962

LOCATION AND DESCRIPTION: Lavon Lake is located in Collin County, on the East Fork of the Trinity River, about 22 miles northeast of the City of Dallas. The project consists of an earth embankment, a gate-controlled concrete spillway with 12 tainter gates, and five gate controlled conduits. Flood control storage is 291,600 acre-feet and water supply storage is 443,800 acre-feet. Nineteen recreation areas cover 2,834 acres.

FISCAL YEAR 2016 ALLOCATION: \$4,224,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) activities of the dam, parks and public use areas, cultural resources, water storage agreements. Also, non-routine maintenance package included \$750,000 to replace relief wells.

FISCAL YEAR 2017 ALLOCATION: \$3,579,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources and water storage.

BUDGETED AMOUNT FOR FY 2018: M: \$935,000 **O:** \$2,831,000 **T:** \$3,766,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,566,000 - Funds will be used for routine operation and maintenance for flood risk management structures insuring the project is performing as designed.

RC: \$1,381,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$804,000 - Funds will be used for routine operation and maintenance for natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$15,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Lavon Lake is estimated to have prevented \$720 million in cumulative flood damages prevented. Over 1,204,700 recreation visits with an estimated local economic impact of \$39.7 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$840,000. There was an additional \$7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lewisville Dam, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Lewisville Dam is 22 miles northwest of the city of Dallas in Denton County. It is located on the Elm Fork of the Trinity River, 30 river miles above its confluence with the Trinity River. The project consists of a rolled earth fill dam, 32,888 feet in length, with a 16-foot diameter flood conduit, controlled by three broom-type gates, and a 560 foot concrete spillway. Flood control storage capacity is 340,800 acre-feet and water supply storage is 598,400 acre-feet. Lewisville Dam has 25 recreation areas covering 4,014 acres.

FISCAL YEAR 2016 ALLOCATION: \$8,648,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) activities of the dam, parks and public use areas, cultural resources, water storage agreements. Also, non-routine package included replace/repair courtesy docks (\$200,000) and embankment and spillway channel slide repairs (\$4,000,000).

FISCAL YEAR 2017 ALLOCATION: \$8,139,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 are being used for routine operations and maintenance (O&M) of dams, recreation areas, cultural resources and water storage. Non-routine work package includes land data migration (\$387,000) and master plan (\$100,000). Additional funds are being used to repair campsites, picnic areas, and roads in all recreation parks that were damaged during 2015 flooding (\$3,500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,171,000 **O:** \$3,443,000 **T:** \$4,614,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,234,000 - Funds will be used for routine operation and maintenance for flood risk management structures.

RC: \$1,367,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$997,000 - Funds will be used for routine operation and maintenance for natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities. In addition, a non-routine work package will be funded to continue work on the Master Plan report (\$300,000).

WS: \$16,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Lewisville Lake is estimated to have prevented \$42 billion in cumulative flood damages. Over 3,010,600 recreation visits with an estimated local economic impact of \$97 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,119,000. There was an additional \$1,667,000 of unobligated funds that are committed within the Corps for

Division: Southwestern

District: Fort Worth

Lewisville Dam, TX

scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Matagorda Ship Channel, TX

AUTHORIZATION: House Document 388, 84th Congress, Second Session

LOCATION AND DESCRIPTION: The project is located in the vicinities of Port O'Connor, Port Lavaca, and Point Comfort in Matagorda and Calhoun Counties, Texas. The Matagorda Ship Channel extends from the Gulf of Mexico, through a jetty-protected inlet, across Matagorda Bay, to a turning basin at Port Lavaca. It is a 36-foot deep by 200-foot wide deep-draft harbor with a 26-mile-long channel. The project includes two rock jetties, 1.13 and 1.14 miles in length.

FISCAL YEAR 2016 ALLOCATION: \$12,671,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging Indian Point to Point Comfort to advance maintenance depth; dredging the channel to Port Lavaca and Port Lavaca Harbor of Refuge to advance maintenance depth; and to continue work on the design deficiency report for Matagorda Jetty system.

FISCAL YEAR 2017 ALLOCATION: \$5,200,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for maintenance dredging of the Matagorda Peninsula to Point Comfort reach to project depth.

BUDGETED AMOUNT FOR FY 2018: M: \$5,600,000 O: \$300,000 T: \$5,900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,900,000 – Funds will be used for maintenance dredging of the Matagorda Peninsula to Point Comfort reach to project depth for \$5,600,000, and \$300,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Port Lavaca was ranked 48th in the Nation with respect to commercial tonnages (11.3 million tons total in 2014). Major commodities transported through the Matagorda Ship Channel include chemicals, petrochemicals, bauxite, and agricultural fertilizer.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,190,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Navarro Mills Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Navarro Mills Lake is 16 miles southwest of the City of Corsicana in Navarro County, Texas. It is located on Richland Creek in the Trinity River Basin. The project consists of an earth fill dam, a controlled spillway using six tainter gates, and two conduits controlled by slide gates. Flood storage capacity is 149,200 acre-feet. Six recreation areas cover 1,195 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,800,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance of the dam, parks and public use areas, cultural resources, and water storage agreements. Non-routine maintenance includes dewater stilling basin and repairs (\$1,250,000). Also included repair of significant slides on discharge channel slope (\$1,800,000).

FISCAL YEAR 2017 ALLOCATION: \$3,072,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of the dam, parks and public use areas, cultural resources, and water storage agreements. Non-routine maintenance includes hydraulic steel structures inspection (\$185,000), periodic inspection (\$132,000), replacement of motors and brake assemblies on spillway structure (\$200,000), campsite shelter roofs (\$200,000), and renovating restrooms (\$200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$948,000 **O:** \$1,598,000 **T:** \$2,546,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,246,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$1,098,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: N/A

EN: \$187,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$15,000 - Funds will be used management of water supply agreements.

OTHER INFORMATION: Navarro Mills Lake is estimated to have prevented \$102 million in cumulative flood damages. Over 710,020 recreation visits with an estimated local economic impact of \$22 million occurred in FY 2012. In the spring of 2015, Navarro Mills received record level rainfall resulting in flooding in the area and setting a new pool of record elevation at the lake. Due to this flood event, Navarro Mills received supplemental funding (\$1,825,000) to assist with embankment/slide repairs that are awarded in FY 2016 and scheduled to be complete in FY 2017.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$502,000. There was an additional \$2,653,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Fort Worth

Navarro Mills Lake, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North San Gabriel Dam and Lake Georgetown, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: The North San Gabriel Dam and Georgetown Lake are 3.5 miles west of the City of Georgetown in Williamson County, Texas, and located on the North Fork of the San Gabriel River. The project consists of a rock fill dam with an impervious earthen core. The flood control outlet works include two hydraulically operated gates. Water supply storage is 29,200 acre-feet and flood control storage capacity is 93,700 acre-feet. Five recreation areas cover 1,638 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,204,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) activities of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$2,355,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) activities of the dam, parks and public use areas, cultural resources, water storage agreements.

BUDGETED AMOUNT FOR FY 2018: M: \$572,000 O: \$1,986,000 T: \$2,558,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017:

N: N/A

FRM: \$1,047,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures ensuring the project is performing as designed.

RC: \$1,105,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$391,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$15,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: North San Gabriel Dam and Georgetown Lake is estimated to have prevented \$19 million in cumulative flood damages. Over 606,900 recreation visits with an estimated local economic impact of \$20.2 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$46,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Fort Worth

North San Gabriel Dam
and Lake Georgetown, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: O. C. Fisher Dam and Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: O. C. Fisher Dam and Lake is near the City of San Angelo in Tom Green County, Texas, and located on the North Concho River. The project consists of an earth fill embankment, an uncontrolled spillway, six gate-controlled intakes, and two flood control conduits. Flood control storage is 276,900 acre-feet and water supply storage is 79,500 acre-feet. Seven recreation areas cover 4,710 acres.

FISCAL YEAR 2016 ALLOCATION: \$851,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,167,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements.

BUDGETED AMOUNT FOR FY 2018: M: \$315,000 O: \$776,000 T: \$1,091,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$918,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$70,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: N/A

EN: \$95,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$8,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: O. C. Fisher Lake is estimated to have prevented \$21 million in cumulative flood damages prevented. Over 83,300 recreation visits with an estimated local economic impact of \$2.4 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$21,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pat Mayse Lake, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pat Mayse Lake is 12 miles north of the City of Paris in Lamar County, Texas. It is located at river mile 4.6 on Sanders Creek, a tributary of the Red River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of an 8,780 foot long rolled earth fill embankment with an uncontrolled spillway. At conservation pool depth the lake covers 5,940 acres.

FISCAL YEAR 2016 ALLOCATION: \$1,054,000

DESCRIPTIONS OF WORK FOR FY 2016: In FY 2016 project funds were used for routine operation and maintenance (O&M) activities on the flood control structure and recreation areas, environmental compliance activities, and management of water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$1,287,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for the O&M of the dam and other facilities, including the replacement of a park restroom and dump station.

BUDGETED AMOUNT FOR FY 2018: M: \$169,000 O: \$1,065,000 T: \$1,234,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$493,000 – Funding will be used for routine O&M for flood risk management.

RC: \$679,000 – Funding will be used for routine O&M for recreation.

H: N/A

EN: \$57,000 – Funding will be used for routine environmental compliance activities, protection of significant cultural resources, water quality monitoring, natural resources management, invasive species control, and National Environmental Policy Act (NEPA) compliance.

WS: \$5,000 – Funding will be used for monitoring of water usage and quality, management of current water storage agreements, and renegotiation of expiring water supply agreements.

OTHER INFORMATION: Since construction in 1967, Pat Mayse Lake is estimated to have prevented \$42 million in cumulative flood damages. Over 214,000 recreation visits with an estimated local economic impact of \$2.3 million occurred at Pat Mayse Lake in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$42,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Proctor Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Proctor Lake is eight miles northeast of the City of Comanche, Texas, in Comanche County on the Leon River. The project consists of an earth fill dam with a concrete spillway, controlled by eleven tainter gates and two low-flow conduits. Flood control storage is 314,800 acre-feet and water supply storage is 60,524 acre-feet. Four recreation areas cover 1,210 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,618,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$2,753,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance activities of the dam, parks and public use areas, cultural resources, water storage agreements. Non-routine maintenance included instrumentation maintenance (\$120,000), repairing water control structures and debris removal in Wetland (\$150,000), and replacement of restrooms in Promontory Park (\$200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$444,000 O: \$1,948,000 T: \$2,392,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,325,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$918,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: N/A

EN: \$138,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$11,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Proctor Lake is estimated to have prevented \$113 million in cumulative flood damages. Over 217,000 recreation visits with an estimated local economic impact of more than \$8.3 million took place in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$27,000. There was an additional \$349,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ray Roberts Lake, TX

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: Ray Roberts Lake is located in Denton, Cook, and Grayson Counties of Texas near the City of Denton. The project consists of an earth fill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 52,400 acre-feet. Ten recreation areas cover 3,810 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,195,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) and non-routine maintenance. Non-Routine packages included repair slope failure (\$325,000) and repair service gate (\$475,000).

FISCAL YEAR 2017 ALLOCATION: \$1,530,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2017: Funds in FY 2017 will be used for routine operation and maintenance (O&M) of dams, recreation areas, cultural resources and water storage.

BUDGETED AMOUNT FOR FY 2018: M: \$718,000 O: \$1,373,000 T: \$2,091,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

FRM: \$1,769,000 - Funds will be used for routine operation and maintenance for flood risk management structures insuring the project is performing as designed. Non-routine activities include security system repairs (\$400,000).

RC: \$68,000 - Funds will be used for operation and maintenance of parks and other public use areas.

H: N/A

EN: \$239,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$15,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Ray Roberts Lake is estimated to have prevented \$32 billion in flood damages since its construction. Over 1,188,600 recreation visits with an estimated economic impact of \$40 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$104,000. There was an additional \$325,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sabine - Neches Waterway, TX

AUTHORIZATION: House Document 553, 87th Congress, Second Session

LOCATION AND DESCRIPTION: The Sabine - Neches Waterway (SNWW) is a Federally-constructed deep-draft navigation project, which serves the Ports of Port Arthur, Beaumont, and Orange in Jefferson and Orange Counties of Texas, and Cameron and Calcasieu Parishes of Louisiana. The existing waterway is a network of 97 miles of navigation channels in three main segments. It consists of a jetty-protected entrance channel 42-feet deep and 500- to 800-feet wide from the Gulf of Mexico; a channel 40-feet deep and 400-feet wide to Beaumont via the Neches River; and a channel 30-feet deep and 200-feet wide to Orange via the Sabine River. The project extends from the deep water of the Gulf of Mexico to the port facilities at Port Arthur, the Port of Beaumont (via the Neches River), and the Port of Orange (via the Sabine River).

FISCAL YEAR 2016 ALLOCATION: \$13,278,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging of the following channel reaches to advance maintenance depth: Outer Bar and Bank Channel with associated environmental requirements such as sea turtle trawling; and Port Arthur Canal, Junction, Taylors Bayou and Turning Basin. Funds were also used for operations and maintenance (O&M) costs of the Neches River Saltwater Barrier (NRSWB) and maintenance dredging of non-Federal berthing areas.

FISCAL YEAR 2017 ALLOCATION: \$14,318,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for maintenance dredging of the following channel reaches to advance maintenance depth: Outer Bar and Bank Channel with associated environmental requirements such as sea turtle trawling; and Port Arthur Canal, Junction, Taylors Bayou and Turning Basin. Funds were also used for O&M costs of the Neches River Saltwater Barrier. Additional funds are being used for donor/energy transfer port activities (\$693,000).

BUDGETED AMOUNT FOR FY 2018: M: \$6,300,000 O: \$1,425,000 T: \$7,725,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$7,725,000 – Funds will be used for maintenance dredging of portions of the project including Port Arthur Canal, Junction, Taylors Bayou and Turning Basin to project depth for \$6,300,000; O&M costs of the NRSWB for \$425,000; and \$1,000,000 for project coordination funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Ports of Beaumont, Port Arthur, and Orange are ranked fourth, 20th and 150th in the Nation with respect to commercial tonnage. The SNWW total commercial tonnage for 2014 was 124.8 million tons; with the Port of Beaumont at 87.2 million tons; Port Arthur at 36.7 million tons; and, the Port of Orange at 817 thousand tons. The Port of Beaumont is also designated as a Strategic

Division: Southwestern

District: Galveston

Sabine – Neches Waterway, TX

Harbor, as military personnel, equipment and supplies are deployed and redeployed through the port facilities. The SNWW is first in the U.S. with crude oil imports and supplies 55-percent of the Nation's strategic petroleum reserves. The SNWW supports two Liquefied Natural Gas (LNG) facilities which require under keel clearances ranging between 5 to 7 feet. Unlike other vessels, these LNG vessels cannot be lightened.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,929,000 of which \$619,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sam Rayburn Dam and Reservoir, TX

AUTHORIZATION: River and Harbor Acts of 1945 and 1948

LOCATION AND DESCRIPTION: The Sam Rayburn Dam and Reservoir project is ten miles northwest of the City of Jasper in Angelina, San Augustine, Sabine, Nacogdoches, and Jasper Counties of Texas, on the Angelina River. Features of the dam include an earthen embankment, combined concrete power intake and flood control outlet works, a labyrinth weir spillway, and two gate controlled conduits. Flood control storage capacity is 1,099,500 acre-feet, power pool storage is 1,446,500 acre-feet, and water supply storage is 43,000 acre-feet. Twenty-eight recreation areas cover 3,151 acres. The project contains two 30-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$7,662,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dam, powerhouse, recreation areas, cultural resources, water storage, and non-routine maintenance to include erosion repair (\$125,000), and pest /invasive species management (\$75,000).

FISCAL YEAR 2017 ALLOCATION: \$6,794,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dam, powerhouse, recreation areas, cultural resources, water storage, and non-routine maintenance to include the Water Control Plan (\$125,000), cultural resources site monitoring and protection (\$25,000), and invasive species control work (\$100,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,195,000 **O:** \$5,220,000 **T:** \$7,415,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,099,000 - Funds will be used for routine operation and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$2,310,000 - Funds will be used for routine operation and maintenance of parks and other public use areas, including ranger patrols, consolidated service contracts, utilities, and real estate management. In addition, a non-routine work package will be funded to resurface roadways in the park (\$400,000).

H: \$2,115,000 - Funds will be used for routine operation and maintenance of hydropower generations and power plant equipment.

EN: \$955,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, pest and invasive species management control, and National Environmental Policy Act compliance activities.

WS: \$11,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Sam Rayburn Dam and Reservoir is estimated to have prevented \$1.53 billion in cumulative flood damages. Over 1,419,180 recreation visits with an estimated local economic impact of \$55.5 million occurred in FY 2012. FY 2015 hydropower production totaled 129,378 megawatt-hours. As a multiple purpose project with power, the project's budget includes Joint activities with total allocation of \$925,000 shared between business lines as follows: HYD 0.11%, FRM 44.06%, and ENS 55.83%.

Division: Southwestern

District: Fort Worth

Sam Rayburn Dam and Reservoir, TX

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$909,000. There was an additional \$449,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Somerville Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Somerville Lake is two miles south of the City of Somerville, Texas, and located in Burleson, Lee, and Washington Counties on Yegua Creek. This is a multipurpose project for flood control, water supply, recreation and fish and wildlife. The project consists of an earth fill dam, a dike, an uncontrolled spillway, a conduit, and a gated intake. Flood control storage capacity is 347,400 acre-feet and water supply storage is 158,900 acre-feet. Eleven recreation areas cover 3,599 acres.

FISCAL YEAR 2016 ALLOCATION: \$3,044,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of the dam, parks and public use areas, cultural resources, water storage agreements.

FISCAL YEAR 2017 ALLOCATION: \$3,420,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of the dam, parks and public use areas, cultural resources, water storage agreements. Non-routine maintenance packages include \$200,000 to replace water line.

BUDGETED AMOUNT FOR FY 2018: M: \$1,167,000 O: \$2,992,000 T: \$4,159,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,437,000 - Funds will be used for routine operation and maintenance of flood risk management. Non-routine activities include repairing the service gates (\$817,000).

RC: \$1,490,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$221,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$11,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Somerville Lake is estimated to have prevented \$244 million in cumulative flood damages since its construction in 1967. Over 1,125,715 recreation visits with a local estimated economic impact of more than \$38 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$139,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillhouse Hollow Dam, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Stillhouse Hollow Lake is five miles southwest of the City of Belton in Bell County, Texas, and located on the Lampasas River, 16 river miles upstream from its confluence with the Little River. The project consists of an earth fill dam, a dike section, and an uncontrolled spillway. Controlled flood releases are accomplished through two hydraulically-operated floodgates. Flood control storage capacity is 394,700 acre-feet and water supply storage is 232,000 acre-feet. Seven recreation areas cover 2,089 acres.

FISCAL YEAR 2016 ALLOCATION: \$2,389,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of the dam, parks and public use areas, cultural resources, water storage agreements. Non-routine package include \$125,000 pest and invasive species management.

FISCAL YEAR 2017 ALLOCATION: \$2,448,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of the dam, parks and public use areas, cultural resources, water storage agreements. Non-routine maintenance funding of \$150,000 is required to rehabilitate surface drainage.

BUDGETED AMOUNT FOR FY 2018: M: \$2,951,000 O: \$2,117,000 T: \$5,068,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,532,000 - Funds will be used for routine operation and maintenance of flood risk management structures insuring the project is performing as designed. In addition, non-routine work package will be funded to repair service flood gates (\$2,500,000).

RC: \$1,146,000 - Funds will be used for routine operation and maintenance of parks and other public use areas.

H: N/A

EN: \$381,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$9,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Stillhouse Hollow Lake is estimated to have prevented \$175 million in cumulative flood damages. Over 440,921 recreation visits with an estimated local economic impact of \$14.5 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$493,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Texas City Ship Channel, TX

AUTHORIZATION: House Document 427, 86th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Texas City Ship Channel deep-draft navigation project consists of a 45-foot by 400-foot wide and 9.4-mile long channel, extending from the intersection of Galveston Harbor and the Houston Ship Channel, to a turning basin and Industrial Canal to the facilities at the Port of Texas City.

FISCAL YEAR 2016 ALLOCATION: \$909,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to monitor channel conditions and prepare plans and specifications for a FY 2017 maintenance dredging contract and maintenance dredging of non-Federal berthing areas.

FISCAL YEAR 2017 ALLOCATION: \$7,993,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform maintenance dredging of the Main Channel and Turning Basin to advanced maintenance depth. Additional funds are being used for donor/energy transfer port activities (\$693,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$50,000 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 – Funds will be used for project coordination, and includes funding for labor, survey plant operations, vehicles, coordination with project sponsors and stakeholders, real estate activities, etc. needed to operate the project.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Port of Texas City is ranked 15th in the Nation with respect to commercial tonnage (47.9 million tons total in 2014). Major commodities include crude petroleum and refined petroleum products. The Port of Texas City includes 1,500 acres of land leased to various industrial entities that operate petrochemical plants, refineries, and tank and terminal facilities.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,395,000 of which \$619,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Town Bluff Dam, B.A. Steinhagen Lake and Robert Douglas Willis Hydropower Project, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Town Bluff Dam, B. A. Steinhagen Lake and the Robert Douglas Willis Hydropower Project are located in Tyler and Jasper Counties, on the Neches River, one-half mile from the City of Town Bluff, Texas. The project consists of an earth fill, concrete-capped embankment that serves as an uncontrolled spillway. The outlet works are controlled by six tainter gates. The lake has ten recreation areas covering 2,185 acres and two 3.7-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$3,855,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dam, powerhouse, recreation areas, cultural resources, and non-routine maintenance of \$50,000 for pest and invasive species management.

FISCAL YEAR 2017 ALLOCATION: \$2,968,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dam, powerhouse, recreation areas, cultural resources, and non-routine activities including civil works land data migration real estate/Geographical Information Systems (\$66,000) and a Water Control Plan (\$50,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,339,000 **O:** \$2,415,000 **T:** \$4,754,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,851,000 - Funds will be used for routine operation and maintenance of flood risk management structures insuring the project is performing as designed. Non-routine activities include replacing or repairing additional cracked welds on the tainter gates (\$1,500,000).

RC: \$797,000 - Funds will be used for routine operation and maintenance of parks and other public use areas, including ranger patrols, consolidated service contracts, utilities, and real estate management.

H: \$787,000 - Funds will be used for routine operation and maintenance of hydropower generations and power-plant equipment.

EN: \$319,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, including monitoring of threatened and endangered species; water quality monitoring; pest and invasive species management control; and National Environmental Policy Act compliance activities.

WS: N/A

OTHER INFORMATION: The Town Bluff Dam and BA Steinhagen Lake project is estimated to have prevented \$250 million in cumulative flood damages. Over 265,500 recreation visits with an estimated local economic impact of more than \$8.9 million occurred in FY 2012. Hydropower facilities produced in FY 2015 totaled 12,825 megawatt-hours.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$268,000. There was an additional \$430,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Southwestern

District: Fort Worth

Town Bluff Dam,
B.A. Steinhagen Lake, TX

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

Division: Southwestern

District: Fort Worth

Town Bluff Dam,
B.A. Steinhagen Lake, TX

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waco Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Waco Lake is two miles west of Waco, Texas, and located in McLennan County on the Bosque River, 4.6 miles above its confluence with the Brazos River. The project consists of a rolled, earth fill dam and a spillway controlled by fourteen tainter gates. One 20-foot diameter conduit in outlet works is controlled by three broome-type tractor sluice gates. Flood control storage capacity is 573,300 acre-feet and water supply storage is 135,700 acre-feet. Eleven recreation areas cover 3,599 acres.

FISCAL YEAR 2016 ALLOCATION: \$7,423,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance of the dam, parks and public use areas, cultural resources, and water storage agreements. Non-routine maintenance items included phase 1 tainter gate repairs (\$2,500,000), and repair spillway channel erosion (\$875,000).

FISCAL YEAR 2017 ALLOCATION: \$3,717,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of the dam, parks and public use areas, cultural resources, water storage agreements.

BUDGETED AMOUNT FOR FY 2018: M: \$4,209,000 **O:** \$2,747,000 **T:** \$6,956,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$5,165,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed. In addition, non-routine work will be funded to repair tainter gates (\$1,650,000) and repair the security system (\$2,000,000).

RC: \$1,478,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: N/A

EN: \$302,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$11,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Waco Lake is estimated to have prevented \$475 million in cumulative flood damages. Over 705,800 recreation visits with an estimated local economic impact of \$24.7 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$100,000. There was an additional \$1,865,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wallisville Lake, TX

AUTHORIZATION: River and Harbor Acts of 1945, 1946, and 1962 and the Supplemental Appropriations Act of 1983 (PL 98-63)

LOCATION AND DESCRIPTION: The Wallisville Lake project is a multi-purpose project on the Trinity River built to prevent salinity intrusion and provide water supply, recreation, navigation, and fish and wildlife enhancements. The project includes eight miles of earthen dam, an overflow spillway with a tainter gate assembly, and an 84-by-600-foot navigation lock with a sill depth of 16 feet for commerce and pleasure craft use.

FISCAL YEAR 2016 ALLOCATION: \$2,504,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform Operations and Maintenance (O&M) activities at the project to dam maintenance and repairs consisting of removing vegetation from structure and repairing wall damage at Structure A.

FISCAL YEAR 2017 ALLOCATION: \$2,175,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for O&M activities to include performing 5-year periodic assessment inspection and bridge inspection and to continue updates to Master Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$593,000 O: \$2,213,000 T: \$2,806,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,806,000 -- Funds will be used for: O&M activities at Wallisville Lake to include completion of the update to the Master Plan (\$40,000); creation of a water control manual (\$300,000); repair control structures (\$115,000); maintain boundary monumentation (\$20,000); and a period of record analysis of the saltwater barrier (\$250,000).

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: None.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$279,000. There was an additional \$729,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitney Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: Whitney Lake is 5.5 miles southwest of the City of Whitney and 35 miles upstream from the city of Waco, Texas. It is located in Hill, Bosque, and Johnson Counties at river-mile 442 on the Brazos River. The project consists of a concrete gravity, earth fill dam, and a spillway that is controlled by seventeen tainter gates. The 23,560 acre lake has a flood storage capacity of 1,372,400 acre-feet and water supply storage is 248,100 acre-feet. The project has thirty-four recreation areas totaling 5,394 acres. The project contains two 17-megawatt hydropower generators.

FISCAL YEAR 2016 ALLOCATION: \$6,937,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance of dam, public use areas, cultural resources, water storage agreements, and hydropower generation.

FISCAL YEAR 2017 ALLOCATION: \$7,419,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance of dam, public use areas, cultural resources, water storage agreements, and hydropower generation. Additional funds are being used to replace the carbon dioxide fire suppression system (\$1,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,283,000 **O:** \$4,439,000 **T:** \$5,722,000 ^{1/}

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,312,000 - Funds will be used for routine operations and maintenance of flood risk management structures insuring the project is performing as designed.

RC: \$1,809,000 - Funds will be used for routine operation and maintenance of the parks and other public use areas.

H: \$1,703,000 - Funds will be used for routine operations and maintenance of hydropower and power plant equipment and joint use packages.

EN: \$555,000 - Funds will be used for routine operations and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities.

WS: \$8,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Whitney Lake is estimated to have prevented \$1 billion in cumulative flood damages since its construction in 1950. Over 1,558,000 recreation visits with an estimated local economic impact of \$49 million occurred in FY 2012. Hydropower generation in FY 2015 totaled 36,070 megawatt-hours. As a multiple purpose project with power, the project's budget includes joint activities, with a total allocation of \$335,000 shared between business lines as follows: HYD – 22.21%, FRM – 68.88%, and ENS – 8.91%.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$672,000. There was an additional \$369,000 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Southwestern

District: Fort Worth

Whitney Lake, TX

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wright Patman Dam and Lake, TX

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Wright Patman Dam and Lake is nine miles southwest of the City of Texarkana and located in Cass and Bowie Counties on the Sulphur River. The project consists of an earth fill dam, an uncontrolled spillway, two conduits, and four gates. Flood control storage is 2,329,100 acre-feet and water supply storage is 321,900 acre-feet. A total of 23 recreation areas cover 3,243 acres.

FISCAL YEAR 2016 ALLOCATION: \$5,174,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds in FY 2016 were used for routine operation and maintenance (O&M) of dam, recreation areas, cultural resources, and water storage agreements. Non-routine maintenance work included the design and repair of embankment erosion (\$1,647,000).

FISCAL YEAR 2017 ALLOCATION: \$4,990,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds in FY 2017 are being used for routine operation and maintenance (O&M) of dam, recreation areas, cultural resources, and water storage agreements. Non-routine maintenance work to include periodic inspection (\$77,000), stilling basin inspection (\$20,000), hydraulic steel structures inspection (\$30,000), invasive species management (\$49,000), campsite repair (\$1,605,000), and cultural resources site repair (\$14,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,673,000 **O:** \$2,285,000 **T:** \$3,958,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,676,000 - Funds will be used for routine operation and maintenance of dams, levees, and other flood risk management structures.

RC: \$1,297,000 - Funds will be used for operation and maintenance of parks and other public use areas.

H: N/A

EN: \$965,000 - Funds will be used for routine operation and maintenance of natural and cultural resources, water quality monitoring, invasive species control, and National Environmental Policy Act compliance activities. In addition, a non-routine work package will be funded to repair cultural resources sites (\$405,000).

WS: \$20,000 - Funds will be used for management of water supply agreements.

OTHER INFORMATION: Wright Patman Dam and Lake is estimated to have prevented \$115 million in cumulative flood damages. Over 901,360 recreation visits with an estimated local economic impact of \$30 million occurred in FY 2012.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$96,000. There was an additional \$2,440,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

VERMONT

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Ball Mountain Lake, VT

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: Ball Mountain Dam is located along the West River, 29 miles above its junction with the Connecticut River in Brattleboro, Vermont. Dam is located about two miles north of Jamaica, Vermont and is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. Project consists of an earth-filled dam with rock slope protection, 915-feet long with a maximum height of 265 feet; an uncontrolled ogee weir spillway, 235-feet wide with a maximum discharge capacity of 150,000 cubic-feet-per-second; and a 13.5-foot diameter outlet conduit with 3 control gates. The reservoir provides 54,690 acre-feet of flood storage capacity to control runoff from its 172 square miles of drainage area.

FISCAL YEAR 2016 ALLOCATION: \$921,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds included \$8,000 to perform required bridge inspections. In addition, non-routine work was funded for \$25,000 to complete a seepage analysis.

FISCAL YEAR 2017 ALLOCATION: \$1,158,000

DESCRIPTIONS OF WORK FOR 2017: FY 2017 funds is being used to perform routine operation and maintenance of the project. In addition, non-routine work will be funded for \$310,000 to complete concrete repairs to the gatehouse and install curbing along the service bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$329,000 O: \$690,000 T: \$1,019,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$761,000 – Funds will provide for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$8,000 to perform required bridge inspections. In addition, non-routine work will be funded for \$35,000 to replace the thrust nut cover on gate 1.

RC: \$117,000 – Funds will provide for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$141,000 – Funds will provide for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: The project provides recreation opportunities to an average of 37,000 visitors yearly, and consists of 965 fee owned acres of land. The project has prevented an estimated \$324.4 million in flood damages since placed in service in 1961.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$43,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: North Atlantic

District: New England

Ball Mountain Lake, VT

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gordon's Landing, VT

AUTHORIZATION: The River and Harbor Act of 1886, modified by the River and Harbor Acts of 1888 and 1890.

LOCATION AND DESCRIPTION: The project consists of a breakwater, 800 ft. long extending from the shore at Gordon's Landing, Lake Champlain, Vermont. The breakwater is adjacent to the landing, which serves as the Vermont terminus for ferry service across Lake Champlain from Cumberland Head, New York. Project provides protection to the harbor from waves and ice flow.

FISCAL YEAR 2016 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$250,000 T: \$250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$250,000 – Structural condition survey above and below waterline of subsided stone breakwater and Preconstruction engineering and design for repair of the breakwater.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project protects the Vermont side of the New York and Vermont Lake Champlain ferry service at Gordon's Landing. The Breakwater has subsided over approximately 50% of its length.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Narrows of Lake Champlain, VT and NY

AUTHORIZATION: River and Harbor Act of 1917

LOCATION AND DESCRIPTION: The Narrows of Lake Champlain navigation project extends from the northern terminus of the New York State Champlain Barge Canal at Lock 12 in Whitehall, NY northward approximately 13.5 miles to Benson Landing, VT. The project provides for a channel 12 ft. deep, approximately 13.5 miles in length and generally 200 ft. wide from Whitehall, NY to Benson Landing, VT. The existing project is considered 77% complete, with a channel 12 ft. deep at Low Lake Level (LLL) and minimum width of 150 ft. having been excavated throughout the entire length of improvement, except in the vicinity of the Elbow (Putts Rock and Putts Leap) where the width is 110 ft. and fender booms were installed to protect vessels from rock outcrops. The uncompleted work is inactive.

FISCAL YEAR 2016 ALLOCATION: \$40,000

DESCRIPTIONS OF WORK AND FOR FY 2016: Funds will be used to perform caretaker activities, including inspection/securing fenderbooms and removal of critical hazards to navigation. The navigation channel provides the link between Lake Champlain and Canada with the New York State Champlain Canal. Fender booms are located where the channel was not constructed to full width to protect vessels from striking rock outcrops.

FISCAL YEAR 2017 CONFERENCE AMOUNT: \$45,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds will be used to perform caretaker activities, including inspection/securing fender booms, removal of critical hazards to navigation and condition survey.

BUDGETED AMOUNT FOR FY 2018: M: \$50,000 O: \$0 T: \$50,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$50,000 - Caretaker status – Project condition surveys, Inspection of fender booms.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The navigation channel provides the link between Lake Champlain and Canada with the New York State Champlain Canal. Fender booms are located where the channel was not constructed to full width to protect vessels from striking rock outcrops. The project is a low use, shallow draft project that primarily supports short and long distance recreational vessels, construction vessels, and tour boats.

1/ Unobligated Carry-in Funding: The actual unobligated balance from FY 2016 into FY 2017 for this project is \$2,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: North Hartland Lake, VT

AUTHORIZATION: The Flood Control Acts of 1938 and 1941

LOCATION AND DESCRIPTION: North Hartland Lake is located along the Ottauquechee River, 1.5 miles above its junction with Connecticut River, and one-mile northwest of North Hartland, Vermont. North Hartland Lake is operated as part of a system of flood control projects within the Connecticut River Basin. The project consists of an earth- and rock-filled dam with rock slope protection, 1,640-feet long with a maximum height of 185 feet; an earth- and rock-filled dike 2,110-feet long with a maximum height of 52 feet; an uncontrolled ogee weir spillway, 465-feet wide with a maximum discharge capacity of 160,900-cubic feet-per-second; a 14.25-foot diameter horseshoe shaped outlet conduit with four control gates through the dam; and a 36-inch diameter outlet conduit with a control gate through the dike. The reservoir provides flood storage of 74,150 acre-feet to control runoff from its drainage area of 220 square miles.

FISCAL YEAR 2016 ALLOCATION: \$1,056,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. In addition, non-routine work was funded for \$135,000 to repair the control tower air vent, \$115,000 to perform seepage analyses of the dam and dike, and \$20,000 to update the project master plan.

FISCAL YEAR 2017 ALLOCATION: \$963,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. In addition, non-routine work is being funded for \$90,000 to install a weir at an observed seepage point to allow for monitoring of the seepage. There is a total of \$12,000 for sustainability work to replace the office furnace with a more energy efficient model.

BUDGETED AMOUNT FOR FY 2018: M: \$637,000 O: \$674,000 T: \$1,311,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$922,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. In addition, funds are provided for advanced engineering and design for future actions and arc flash assessments (\$145,000), log boom logs and concrete survey (\$65,000), to pave outer parking lot (\$15,000), and replace office septic system (\$90,000).

RC: \$133,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$256,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$300.9 million in flood damages since placed in service in 1961. The project provides recreation opportunities to an average of 306,000 visitors each year and consists of 1,464 fee-owned acres of land.

Division: North Atlantic

District: New England

North Hartland Lake, VT

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$87,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: North Springfield Lake, VT

AUTHORIZATION: The Flood Control Acts of 1938 and 1941

LOCATION AND DESCRIPTION: North Springfield Lake is in the Springfield, Vermont, along the Black River, 8.7 miles above its junction with the Connecticut River. North Springfield Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of two earth- and rock-filled dams with rock slope protection. The main dam is 2,940-feet long with a maximum height of 120 feet and has an uncontrolled side channel spillway with an ogee weir, 384-feet wide with a maximum discharge capacity of 117,200-cubic feet-per-second, and a 12.75-foot diameter horseshoe shaped outlet conduit with three control gates. The north branch dam is 900-feet long with a maximum height of 75 feet and has an uncontrolled broad crested spillway weir, 200-feet wide with a maximum discharge capacity of 1,600-cubic feet-per-second, and an 8-inch diameter outlet conduit. The reservoir provides flood storage capacity of 51,100 acre-feet to control runoff from its drainage area of 158-square miles.

FISCAL YEAR 2016 ALLOCATION: \$1,028,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$10,000 for required bridge inspections. In addition, non-routine work was funded for \$75,000 for repairs to the concrete spillway and the gatehouse bridge and to install new fall containment systems in the gatehouse, and \$130,000 to perform a seepage and stability analysis and install additional piezometers.

FISCAL YEAR 2017 ALLOCATION: \$923,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections and \$185,000 to conduct required periodic inspection and assessment of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$432,000 O: \$504,000 T: \$936,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$739,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections. In addition, funds are provided for the project office roof, windows, siding and doors (\$70,000) and to replace the office generator (\$25,000).

RC: \$69,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$128,000 – Provides for routine operation and maintenance. Activities include boundary surveys for encroachment, maintenance of boundary lines, and plant and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$289.1 million in flood damages since placed in service in 1960. The project provides recreation opportunities to an average of 38,000 visitors each year and consists of 1,361 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$108,000. There was an additional \$17,000 of unobligated funds that are committed within the Corps for scheduled

Division: North Atlantic

District: New England

North Springfield Lake, VT

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Townshend Lake, VT

AUTHORIZATION: The Flood Control Acts of 1944 and 1954. The fish passage facility was authorized by Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: Townshend Lake is along the West River, 19.1 miles above its junction with the Connecticut River in Brattleboro, Vermont, and two miles west of Townshend, Vermont. The reservoir is operated as part of a system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and outlet conduit.

FISCAL YEAR 2016 ALLOCATION: \$1,116,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections. In addition, non-routine work was funded for \$43,000 to conduct dam safety items including diver inspection of the outlet toe and filling of sinkholes, and \$183,000 to complete concrete repairs on the spillway and outlet toe wall.

FISCAL YEAR 2017 ALLOCATION: \$910,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$10,000 to conduct required bridge inspections and \$185,000 to conduct required periodic inspection and assessment of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$890,000 O: \$1,010,000 T: \$1,900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,673,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$10,000 to conduct required bridge inspections.

RC: \$95,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$132,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 33,700 acre-feet to control runoff from its net drainage area of 106 square miles. Project has prevented an estimated \$234.6 million in flood damages since placed in service in 1961. The project provides recreation opportunities to 23,000 visitors each year and consists of 1,010 fee-owned acres of land.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$59,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATIONS TITLE: Operation and Maintenance

PROJECT NAME: Union Village Dam, VT

AUTHORIZATION: The Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Union Village Dam is on the Ompompanoosuc River, about 4 miles upstream from its junction with the Connecticut River. The dam lies about one-fourth mile north of Union Village, Vermont, and 11 miles north of White River Junction, Vermont. Union Village Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth- and rock-filled dam, 1,100-feet long with a maximum height of 170 feet; an uncontrolled ogee weir spillway, 388-feet wide with a maximum discharge capacity of 84,900-cubic feet-per-second; and a 13-foot diameter outlet conduit with two control gates.

FISCAL YEAR 2016 ALLOCATION: \$893,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to perform routine operation and maintenance of the project. These funds include \$9,000 to conduct required bridge inspections. In addition, non-routine work was funded for \$100,000 for engineering and design for bridge painting.

FISCAL YEAR 2017 ALLOCATION: \$1,028,500

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to perform routine operation and maintenance of the project. These funds include \$6,000 to conduct required bridge inspections. In addition, non-routine work is being funded for \$320,000 to repair and paint the West Branch and Avery Brook Bridges.

BUDGETED AMOUNT FOR FY 2018: M: \$992,000 O: \$503,000 T: \$1,495,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,244,000 – Provides for routine operation and maintenance. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; maintenance service contracts for snow and debris removal, and vegetation control along dam slopes. These funds include \$13,000 to conduct required bridge inspections. Additional funds provide for arc flash hazard assessment (\$25,000), conduit repairs (\$25,000), east access road repairs (\$280,000), gatehouse masonry repairs (\$40,000), gatehouse painting (\$20,000), paint garage floors (\$15,000), pave entrance (\$40,000), purchase flowage easement (\$80,000), and renovate park ranger office (\$30,000).

RC: \$72,000 – Provides for routine operation and maintenance. Activities include maintaining project trails and other recreation areas for visitor safety.

H: N/A

EN: \$179,000 – Provides for routine operation and maintenance. Activities include patrols to check for encroachment onto project lands, maintaining boundary lines, a pest management program, and plant and invasive species management.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 38,400 acre-feet to control runoff from its net drainage area of 126-square miles. Project has prevented an estimated \$138.3 million in flood damages since placed in service in 1950. The project provides recreation opportunities to an average of 46,000 visitors each year and consists of 991 fee-owned acres of land.

Division: North Atlantic

District: New England

Union Village Dam, VT

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$52,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

VIRGINIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – Albemarle and Chesapeake Canal Route, VA

AUTHORIZATION: River and Harbor Act of 1899 and modified by Acts of 1912, 1925, 1930, 1934 and 1945.

LOCATION AND DESCRIPTION: The Albemarle and Chesapeake Canal (ACC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic Ocean between the Southern Branch of the Elizabeth River and the Virginia-North Carolina state line in the North Landing River, a distance of 27 miles. This project provides for a channel 12 feet deep with widths of 90 feet in land cuts and from 125 to 250 feet in rivers. The project is a shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$2,507,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used on the AIWW-ACC to operate the bridge, lock, canal, and reservation for commercial traffic and Navy fuel barges.

FISCAL YEAR 2017 ALLOCATION: \$2,650,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used on the AIWW-ACC to operate the bridge, lock, canal, and reservation for commercial traffic and Navy fuel barges.

BUDGETED AMOUNT FOR FY 2018: M: \$805,000 O: \$2,822,000 T: \$3,627,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,627,000 - Funds will be used on the AIWW-ACC to operate the bridge, lock, canal, and reservation for commercial traffic and Navy fuel barges. Non-routine activities include Great Bridge Lock valve repairs (\$475,000) and Lock fender system repairs (\$330,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Albemarle and Chesapeake Canal segment is particularly critical to the U.S. Navy which transports over 55 million gallons of jet fuel yearly from the Craney Island Fuel Depot in Portsmouth, Virginia to the Oceana Naval Air Station in Virginia Beach, Virginia. This waterway segment is part of the Atlantic Intracoastal Waterway connecting Norfolk, Virginia with the St. Johns River, Florida. Commercial and recreation vessels travel the waterway. In the latest year of waterborne commerce data (2014), over 1,600 commercial vessel trips carrying over 1.1 million tons passed through the Great Bridge Lock.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$613,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: North Atlantic

District: Norfolk

Atlantic Intracoastal Waterway-ACC Route, VA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – Dismal Swamp Canal Route, VA

AUTHORIZATION: River and Harbor Act of 1899 and modified by Acts of 1912, 1925, 1930, 1934 and 1945.

LOCATION AND DESCRIPTION: The Dismal Swamp Canal (DSC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic coast between Norfolk, Virginia and the Pasquotank River in North Carolina. The canal is the oldest operating artificial waterway in the United States. The authorized depth of the canal is 10 feet; however, the project is currently maintained at a minimum depth of 6 feet. The project also consists of one highway drawbridge and navigation lock at Deep Creek, Virginia, one highway drawbridge and navigation lock at South Mills, North Carolina and three water control structures. The project is a shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$2,220,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for routine operation and maintenance of the bridges and locks and routine operation and maintenance of three water control structures.

FISCAL YEAR 2017 ALLOCATION: \$1,490,000

DESCRIPTIONS OF WORK FOR FY 2017: \$675,000 of navigation funds are being used to operate the bridges and locks, on minimum basis of 8 hours a day, 7 days a week. \$705,000 of flood risk management funds are being used to operate 3 water control structures along the Dismal Swamp Canal in Chesapeake Virginia and South Mills North Carolina. Structures must be operated to prevent flooding even if lock and bridge operation is not performed. Additional funds include \$110,000 to paint the South Mills bridge.

BUDGETED AMOUNT FOR FY 2018: M: \$550,000 O: \$1,302,000 T: \$1,852,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,142,000 - Funds will be used to operate the bridges and locks, on an 8 hours a day, 7 days a week basis.

FRM: \$710,000 - This amount will be used to operate the water control structures at Deep Creek, South Mills, and Lake Drummond. The water control structures are manned in conjunction with the locks and bridges to control the water levels in Lake Drummond as required by Public Law 93-402.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The DSC provides navigation needs for vessels to travel the protected waterways of the AIWW in lieu of traveling through the Currituck Sound. The water control structures are manned in conjunction with the locks and bridges to control the water levels in Lake Drummond as required by Public Law 93-402. The DSC was placed on the National Register of Historical Places and registered as an ASCE Landmark in 1988 and in 2004 was included in the National Park Service's Underground Railroad Network to Freedom Program.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$891,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to

Division: North Atlantic District: Norfolk Atlantic Intracoastal Waterway-DSC Route, VA

be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chincoteague Harbor of Refuge, Virginia, VA

AUTHORIZATION: Approved by the Chief of Engineers in 1972 under Section 107 of the River and Harbor Act of 14 July 1960

LOCATION AND DESCRIPTION: This critical harbor of refuge is located on the southern tip of Chincoteague Island, Virginia about 3 miles from the Atlantic Ocean where it is accessed by the Chincoteague Inlet Federal Navigation Project.

FISCAL YEAR 2016 ALLOCATION: \$50,000

DESCRIPTIONS OF WORK FOR FY 2016: The funds were used to update necessary environmental permits and other activities to prepare for dredging of the access channel.

FISCAL YEAR 2017 ALLOCATION: \$0

DESCRIPTIONS OF WORK FOR FY 2017: N/A

BUDGETED AMOUNT FOR FY 2018: M: \$65,000 O: \$0 T: \$65,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$65,000 – Funds will be used to dredge the basin and entrance channel using either government plant or a contract dredge.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This subsistence harbor supports a productive commercial fishing industry and a community that has existed since the late 1700s. The channels and basin provide the means for virtually all supplies, heating oil, motor fuel and ferry services to reach the island. The residents could lose all economic means if the channels and basin are not maintained.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$31,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chincoteague Inlet, VA

AUTHORIZATION: Section 107 of the River and Harbor Act of 1960

LOCATION AND DESCRIPTION: Chincoteague Inlet is located on the Eastern Shore of Virginia in Accomack County. The project is a shallow-draft harbor.

FISCAL YEAR 2016 ALLOCATION: \$522,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for the Government dredge MURDEN to dredge shoaling that occurred over the length of the project. A portion of the funding was used to perform channel surveys to monitor and report the channel conditions to users, and to coordinate with the Coast Guard on buoy and channel marker placements.

FISCAL YEAR 2017 ALLOCATION: \$836,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used for the Government dredges CURRITUCK or MURDEN to dredge shoaling over the length of the project, with dredging assignments to remove the shoals that posed hazards to navigation. A portion of the funding is used to perform channel surveys to monitor and report the channel conditions to users, and to coordinate with the Coast Guard on buoy and channel marker placements. Additional funds are provided to perform additional dredging (\$325,000).

BUDGETED AMOUNT FOR FY 2018: M: \$566,000 O: \$0 T: \$566,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$566,000 – Funds will provide for the dredging of critical shoals within the length of the project using Government Plant. It is anticipated that either the CURRITUCK or MURDEN will be assigned to remove the more hazardous shoals as they occur. A portion of the funds will be used to perform channel surveys to monitor and report the channel conditions to users, and to coordinate with the Coast Guard on buoy and channel marker placements.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Chincoteague Inlet provides the primary access to the harbor of refuge at Chincoteague and supports commercial fishing, the U.S. Coast Guard, the NASA Wallops Island Flight Facility, the NASA Goddard Space Flight Center and the Mid-Atlantic Regional Spaceport. The U.S. Navy uses the project for training operations, range control, payload recovery, and oceanographic missions. The Commonwealth of Virginia operates vessels from the Port of Chincoteague for the purpose of marine fisheries law enforcement, scientific investigations, and permit enforcement for other water related activities such as marine salvage and archaeology.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$40,000. There was an additional \$186,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated

Division: North Atlantic

District: Norfolk

Chincoteague Inlet, VA

to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gathright Dam and Lake Moomaw, VA

AUTHORIZATION: Flood Control Act of 1964

LOCATION AND DESCRIPTION: Gathright Dam and Lake Moomaw project is 43 miles above the confluence of the Jackson River with the James River, and 17 miles upstream of Covington, Virginia. The project is operated to reduce flood damages at downstream locations, augment low-flow conditions, and provide for water-based recreation. The project is part of the overall strategy for water control and flood risk reduction within the James River Basin.

FISCAL YEAR 2016 ALLOCATION: \$2,049,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance which included operation and maintenance of the dam, intake tower, water treatment plant, wastewater treatment plant, and support facilities; water management activities; gauging and coordination with the U.S. Geological Survey, other agencies and stakeholders.

FISCAL YEAR 2017 ALLOCATION: \$2,223,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are providing for routine operation and maintenance which includes operation and maintenance of the dam, intake tower, water treatment plant, wastewater treatment plant, and support facilities; water management activities; gauging and coordination with the U.S. Geological Survey, other agencies and stakeholders.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$2,347,000 T: \$2,347,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,347,000 - This level of funding will provide for the basic operation of the project for flood risk management, including operation of the dam, intake tower, water treatment plant, wastewater treatment plant, and support facilities. However, this level of funding will only provide for normal operations for approximately 9 months of the year, and no backlog maintenance items. Water quality and low flow augmentation goals are accomplished as part of operation of the dam and reservoir for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated \$310 million in flood damages since completion in 1982. The project provides improved water quality through low flow augmentation and enables the selective withdrawal of water at temperatures that provide a habitat suitable for a cold-water fishery in the Jackson River. The project also provides water-based recreation. Recreation services are provided at sites operated by the U.S. Forest Service.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$50,000. There was an additional \$3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated

Division: North Atlantic

District: Norfolk

Gathright Dam and Lake Moomaw, VA

to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hampton Roads Drift Removal, VA

AUTHORIZATION: River and Harbor Act of 1950

LOCATION AND DESCRIPTION: The project area includes Hampton Roads, Norfolk, and Newport News Harbors and the James River, Elizabeth River, and Nansemond River tributary waters in Virginia. The project provides for the collection and removal of floating debris for the protection of navigation over an area of 75 square miles, with 32 miles of developed waterfront and 300 terminal facilities. The project also provides for disposal of debris at Craney Island, Virginia.

FISCAL YEAR 2016 ALLOCATION: \$1,335,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to conduct five days per week operations, consisting of removal of hazardous drift. Major ship yard repair and maintenance were performed on the vessels.

FISCAL YEAR 2017 ALLOCATION: \$1,950,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to conduct operations five days per week, consisting of removal of hazardous drift. This level of operation will prevent collisions with vessel hulls and critical appendages and potentially prevent the sinking of military and commercial craft. The program provides for the removal of over 1,000 tons of drift yearly, and prevents several million of dollars in vessel repairs. Major ship yard repair and maintenance are scheduled for FY 2017 for the vessels. Additional funds are provided for construction of upgraded building and facilities for Hampton Roads staff and equipment (\$450,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,470,000 O: \$0 T: \$1,470,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,470,000 - funds will be to remove hazardous drift to prevent collisions with hulls and critical appendages and sinking of military, commercial, and pleasure craft. Area of operations include the largest naval base in the world - Naval Station Norfolk and 7th largest port in the nation and designation as a strategic port - Port of Virginia. Removal of over 1000 tons of drift yearly prevents several millions of dollars in repairs. To repair a propeller on a commercial vessel could cost more than \$50,000 and thousands of dollars in down time and lost revenue. Not funding the project will cause hazardous drift accumulation on the water surface making transits in the harbor dangerous, increasing risk of personal injury and property damage.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Daily removal of debris is essential for the safety of the port, U.S. Navy and U.S. Coast Guard operations and commercial shipping traffic exceeding 60 million tons annually. Operation prevents collisions of drift material with vessel hulls and appendages of military and commercial craft. The program provides for the removal of over 1,000 tons of drift yearly, and prevents several million of dollars in vessel repairs. The channels supported by this project support an average of

Division: North Atlantic

District: Norfolk

Hampton Roads Drift Removal, VA

over 100,000 vessel trips annually. The removal of debris from the waterways reduces pollution and subsequent impact to marine habitat and wetlands in the Elizabeth River, Nansemond River, and James River.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$92,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is 0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hampton Roads, Prevention of Obstructive Deposits, VA

AUTHORIZATION: The River and Harbor Act of 1888, as amended

LOCATION AND DESCRIPTION: The project provides for detection and prevention of the illegal deposit into navigable waters of waste, oil, sludge, refuse, and other types of debris from vessels and shore installations. The Corps of Engineers Supervisor of the Harbor, in coordination with U. S. Coast Guard, Department of Justice, and other Federal and State agencies, is designated to conduct the program. The jurisdiction of the Supervisor of the Harbor of Hampton Roads includes Hampton Roads and reaches of Chesapeake Bay, the Atlantic Ocean located in Virginia and tidal portion of their tributaries, including the James River, York River, Rappahannock River, and south shore of the Potomac River.

FISCAL YEAR 2016 ALLOCATION: \$68,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used for patrol, investigation, and coordination with US Coast Guard, Department of Justice, and other Federal and State agencies to execute this program.

FISCAL YEAR 2017 ALLOCATION: \$152,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to provide patrol, investigation, and coordination with US Coast Guard, Department of Justice, and other Federal and State agencies to execute this program. Additional funds are provided for two additional days of operations (\$38,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$170,000 T: \$170,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$170,000 - The amount will provide for operations 3 days a week to patrol, investigate, and coordinate with US Coast Guard, Department of Justice, and other Federal and State agencies to prevent, detect, and prosecute the deposit of waste, refuse, and other injurious and hazardous materials into navigable waters.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project contributes directly to national commerce and economic benefits by providing an efficient, cost-effective method of ensuring refuse and other injurious materials do not get into navigable waters of Hampton Roads and contributes to the safe passage of over 100,000 vessel trips annually. The prevention of waste and refuse deposits into the waterways also reduces water pollution and subsequent impacts to marine habitat and wetlands in the Chesapeake Bay and its tributaries.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$70,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: North Atlantic

District: Norfolk

Hampton Roads, Prevention of
Obstructive Deposits, VA

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is 0.

Division: North Atlantic

District: Norfolk

Hampton Roads, Prevention of
Obstructive Deposits, VA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: James River, VA

AUTHORIZATION: River and Harbor Act of 1884 as modified by the River and Harbor Acts of 1902, 1905, 1930, 1937, 1945, 1950, and 1962.

LOCATION AND DESCRIPTION: The James River Federal navigation channel provides 90 miles of deep-draft navigation from Hampton Roads, Virginia to Richmond, Virginia.

FISCAL YEAR 2016 ALLOCATION: \$ 5,430,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to dredge shoaled areas to maintain a depth of 25 feet. The funding also provided for channel condition surveys of shoaling along the river, to provide reports of shoaling to the U.S. Coast Guard and other agencies and stakeholders, to assure river pilots and vessel operators have up-to-date information and to assure proper buoy placement for safe navigation. Funds were also used to coordinate with environmental agencies and assure that all necessary permits and clearances were maintained in an up to date status, so that future maintenance dredging may proceed.

FISCAL YEAR 2017 ALLOCATION: \$7,900,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to dredge the most critically shoaled areas within the length of the project to maintain a depth of 25 feet below MLLW. The funding is providing for channel condition surveys of critical shoals along the river and reporting to the U.S. Coast Guard and other agencies and stakeholders, to ensure river pilots and vessel operators have up-to-date information and proper buoy placement for safe navigation. A portion of the funding is also used to coordinate with environmental agencies and assure that all necessary permits and clearances are maintained in an up to date status, so that maintenance dredging may proceed without delays. Additional funds are provided for James River maintenance dredging supplemental package # 2 (\$1,500,000), perform additional dredging by contract to maintain the 25 foot depth (\$2,000,000), and funds for James River Regional Sediment Management Program (\$300,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,437,000 O: \$292,000 T: \$2,729,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,729,000 – Funds will be used for shoaling that can accumulate as much as 8 feet annually in portions of the James River. Surveys are required to report conditions and adjust dredging schedules to react to river conditions.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Local Sponsor is the City of Richmond with the Virginia Port Authority acting as their agent. Channel maintenance assures the safe and efficient transit of ships calling on the Ports of Richmond and Hopewell and 51 other facilities located on the river. An increase in the rapid shoaling rates in 2013 resulted in vessel draft restrictions, indicating that continued funding for maintenance is essential to deep-draft commercial navigation.

Division: North Atlantic

District: Norfolk

James River, VA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$753,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John H. Kerr Lake, VA & NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Roanoke River, about 180 river miles above its mouth, in Mecklenburg County, Virginia and Vance County, North Carolina and provides flood risk management, recreation, hydropower, water supply and fish and wildlife conservation. The project includes a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of over 4 miles. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin. The project has an installed hydroelectric generating capacity of 268,000 kilowatts.

FISCAL YEAR 2016 ALLOCATION: \$10,366,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance in support of the multi-purpose project. Non-routine flood risk management activities include the development of plans and specification for the right wing dike failure.

FISCAL YEAR 2017 ALLOCATION: \$16,940,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance in support of the multi-purpose project. Non-routine activities include implementation of Interim Risk Reduction Measures at Island Creek, installation of a circuit switcher, plans and specifications for Island Creek stability berm, governor upgrades, motor control center replacement, lighting distribution equipment, powerhouse window refurbishment, and Geospatial Land Data Migration Mapping.

BUDGETED AMOUNT FOR FY 2018: M: \$9,168,000 O: \$7,061,000 T: \$16,229,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,360,000 – Funds will be used for routine operation and maintenance in support of flood risk management. Non-routine activities include plans and specifications to install Island Creek transformer (\$300,000).

RC: \$2,918,000 – Funds will be used for routine operation and maintenance in support of recreation.

H: \$8,460,000 – Funds will be used for routine operation and maintenance in support of hydropower. Non-routine activities include 125VDC system replacement (\$300,000), Motor Control Center Repair (\$3,700,000) and Supervisory Control Center (\$250,000).

EN: \$1,876,000 – Funds will be used for routine operation and maintenance in support of environmental stewardship. Non-routine maintenance includes resolution of real estate encroachments (\$434,000) and cultural resource plan (\$130,000).

WS: \$27,000 – Funds will be used for routine operation in support of water supply.

OTHER INFORMATION: The budgeted amount for the project includes \$1,588,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD - 81% and FRM - 19%. Joint cost non-routine work involves Geospatial Land Data Migration Mapping (\$533,000). Island Creek Dam and pumping station is part of this project and is rated as a Dam Safety Action Classification III structure. Occurrences of observed seepage at the Island Creek Dam have resulted in implementation of interim measures to minimize the impacts to this structure. Interim measures have also been taken on the

Division: South Atlantic

District: Wilmington

John H. Kerr Lake, VA & NC

failing toe drain system along the right wing dike of Kerr Dam. A more permanent measure is under evaluation for both structures. Flood damages reduced during FY 2015 were over \$36 million for a cumulative total of more than \$450 million since the project was placed in operation in 1952. In 2012, the annual visitation to the project was over 1.6 million visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$364,000. There was an additional \$7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John W. Flannagan Dam and Reservoir, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: John W. Flannagan Dam and Reservoir is located in Dickenson County, VA and situated on the Pound River, a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River. It is 1.8 miles above the mouth of the Pound River and 150.0 miles above the mouth of the Big Sandy River. The project includes operation and maintenance (O&M) of John W. Flannagan Dam and Reservoir. The lake is impounded by a rock-fill dam with a central impervious core. The dam has a maximum height of 250 feet and a top length of 916 feet. The dam was completed in 1964.

FISCAL YEAR 2016 ALLOCATION: \$2,324,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$2,292,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and replace well water service at the Pound River campground with commercial water service to assure public health and safety and reduce costs.

BUDGETED AMOUNT FOR FY 2018: M: \$2,133,000 O: \$1,310,000 T: \$3,443,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,521,000 - Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management. Also included is the Repair Fleet package to correct spillway gate structural deficiency.

RC: \$811,000 - Funds will provide for routine O&M of recreation facilities. Also included is the Sustainability package to connect Pound River Campground to commercial water.

H: N/A

EN: \$78,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. The project will also develop pollinator food plots.

WS: \$33,000 – Funds will provide for routine O&M for water supply to provide an estimated 10 million gallons per day to approximately 30,000 citizens in Dickenson, Wise, and Buchanan Counties, Virginia.

OTHER INFORMATION: The project has prevented over \$445,187,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 376,000 and average annual visitation from 2008 to 2012 exceeded 433,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$24,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Huntington

John W. Flannagan Dam and
Reservoir, VA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lynnhaven Inlet, VA

AUTHORIZATION: River and Harbor Act of 1962, except the side channel into Long Creek which was approved by the Chief of Engineers in 1982 under authority of Section 107 of the River and Harbor Act of 1960

LOCATION AND DESCRIPTION: Lynnhaven Inlet is located on the Chesapeake Bay within the City of Virginia Beach, Virginia. The project is a shallow draft harbor that requires maintenance dredging of shoaling that poses a navigation hazard and full maintenance dredging on intervals of about three years.

FISCAL YEAR 2016 ALLOCATION: \$275,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds were used to dredge critical shoaling that posed a navigation hazard through the entrance channel. Funding was also used to perform channel condition surveys, to report the channel conditions to users, and to coordinate with the U.S. Coast Guard on buoy and channel marker placements.

FISCAL YEAR 2017 ALLOCATION: \$1,550,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used to dredge the most critical shoals through the entrance channel. A portion of the funding is also being used to perform channel examination surveys to monitor and report the channel conditions to users, and to coordinate with the Coast Guard on buoy and channel marker placements. Additional funds will be used maintenance dredging (\$1,250,000).

BUDGETED AMOUNT FOR FY 2018: M: \$600,000 O: \$0 T: \$600,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$600,000 – Funds will be used to fund the USACE Dredge Currituck to remove critical shoaling in the entrance channel and turning basin.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The navigation project provides access to the Chesapeake Bay and Atlantic Ocean for commercial fishing vessels, pilot vessels, charter fishing boats, and a wide range of private recreational vessels. The project is also used to transport pilots from their docks to deep draft ships transiting the Chesapeake Bay. The dredged material is predominantly sand, and is beneficially used for beach nourishment at Ocean Park and Cape Henry Beaches.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$681,000. There was an additional \$35,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Norfolk Harbor, VA

AUTHORIZATION: River and Harbor Act of 1876 as modified by subsequent River and Harbor Acts and the Water Resources Development Act of 1986. The Craney Island Dredged Material Management Area was authorized by the River and Harbor Act of 1946.

LOCATION AND DESCRIPTION: Project includes the deep-draft, high-use navigation channels in the Elizabeth River, Hampton Roads, and the lower Chesapeake Bay. The project also includes the Craney Island Dredged Material Management Area, constructed on 2,500 acres of river bottom in Hampton Roads adjacent to Portsmouth, Virginia. Craney Island is the primary dredged material placement area for construction and maintenance dredging within the Hampton Roads port complex, including the Federal navigation channels, U.S. Navy facilities, Virginia Port Authority facilities, and other commercial port terminals.

FISCAL YEAR 2016 ALLOCATION: \$20,893,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used to complete dredging of critical shoals within Norfolk Harbor Reach and Craney Island Reach to a maintained depth of 50-foot mean lower low water with adequate advance maintenance; to dredge the Thimble Shoal Channel to a maintained depth of 50 feet MLLW with adequate advance maintenance; to maintain primary containment dikes; to perform preliminary engineering to replace a primary spillway at Craney Island that has reached the end of its service life; to perform channel condition surveys; to perform critical environmental testing and analyses; and to reporting accurate, up-to-date channel conditions. Of the FY 2016 allocation, \$2,475,000 is Donor and Energy Ports funding that was used for maintenance dredging of eligible local terminal facilities.

FISCAL YEAR 2017 ALLOCATION \$15,662,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for dredging critical shoaling within Norfolk Harbor Reach and Craney Island Reach to a maintained depth of -50 feet mean lower low water (MLLW); for dredging the Atlantic Ocean Channel to a maintained depth of -52 FT MLLW; for the maintenance of primary containment dikes essential to providing capacity for dredged material from Federal and commercial projects, including capacity for the minimum critical shoaling expected within the Norfolk Harbor Channel; for surveys to support engineering and design of dikes and roads, and to assess site capacity at Craney Island; for the repairs of primary spillways at Craney Island; for providing the highest level of safety awareness to reduce safety related incidents, and improve the operations at Craney Island; for condition surveys of project channel elements; for reporting accurate, up-to-date conditions to customers; and for plans for future maintenance dredging. Additional funds are provided to replace one of the six primary spillboxes at Craney Island Dredged Material Management Area (\$2,500,000) and for donor/energy port funding (\$2,772,000).

BUDGETED AMOUNT FOR FY 2018: M: \$8,867,750 O: \$553,000 T: \$9,420,750 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$9,420,750 - Funds will be used for the annual barebones level of maintenance, to dredge only critical shoaling within Norfolk Harbor Reach and Craney Island Reach to a maintained depth of -50 FT MLLW. Failure to maintain depths will result in draft restrictions causing significant economic losses, impacts to Nation, U.S. Navy, and Commercial Navigation. The funds will also provide for the maintenance of primary containment dikes essential to providing capacity for dredged material from Federal and commercial projects. The consequence of not performing dike maintenance will be delays to Federal and commercial navigation projects throughout Norfolk Harbor. Funds will be used to perform approximately 5 condition surveys of Norfolk Harbor Channel project elements. Surveys will be used to detect shoaling, report accurate, up-to-date conditions to the customers, and help plan for future

Division: North Atlantic

District: Norfolk

Norfolk Harbor, VA

maintenance dredging. If not funded, early detection of shoals will not occur, draft restrictions will result, and future dredging requirements cannot be evaluated.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Norfolk Harbor is home to 87 port facilities with vessels handling over 70 million tons annually, with \$60 billion cargo value. A total of 362 vessel trips at drafts exceeding 45 feet were reported in 2013. Norfolk Harbor is a major coal-exporting port, averaging over 45 million tons of coal from its three coal terminals. Norfolk Harbor is home of the Norfolk Naval Station and is designated as a Military Strategic Port. Nine shipyards are based in Norfolk Harbor.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$17,890,000 of which \$2,475,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Fork of Pound River Lake, VA

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: North Fork of Pound River Lake is located in Wise County, VA on the North Fork of the Pound River. The Pound River is a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River, 1.1 miles above the mouth of North Fork of Pound River and 184 miles above the mouth of the Big Sandy River. The lake is impounded by a rock-fill dam with central impervious core at a height of 122 feet and length of 600 feet. The dam was completed in 1966.

FISCAL YEAR 2016 ALLOCATION: \$678,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$619,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$217,000 O: \$373,000 T: \$590,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$491,000 – Funds will provide for routine O&M for flood risk management. Routine activities include bridge inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$59,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$12,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: \$28,000 – Funds will provide for routine O&M for water supply to provide an estimated 300,000 gallons per day to approximately 1,000 citizens for the Town of Pound, VA.

OTHER INFORMATION: The project has prevented over \$33,061,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 99,000 and average annual visitation from 2008 to 2012 exceeded 100,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Philpott Lake, VA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Smith River about 45 miles above its junction with the Dan River in Franklin and Henry Counties, Virginia and provides flood risk management, recreation, hydropower and other benefits to the public. The project includes a concrete gravity dam about 900 feet long with a maximum height of 220 feet above the streambed. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin. The project has an installed hydroelectric generating capacity of 14,000 kilowatts.

FISCAL YEAR 2016 ALLOCATION: \$ 5,613,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance in support of the multi-purpose project.

FISCAL YEAR 2017 ALLOCATION: \$4,754,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance in support of the multi-purpose project. Non-routine maintenance activities include conversion of standard restrooms, hydraulic control piping replacement, powerhouse roof repair and upgrade, village feeder upgrade, and accessibility improvements to the boat handling facilities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,499,000 O: \$3,372,000 T: \$4,871,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$542,000 – Funds will be used for routine operation and maintenance in support of flood risk management.

RC: \$1,620,000 – Funds will be used for routine operation and maintenance in support of recreation. There is a total of \$6,000 for sustainability work on the project to replace outdoor security lighting with LED lights.

H: \$1,623,000 – Funds will be used for routine operation and maintenance in support of hydropower. Non-routine hydropower activity involves design work to replace the existing power plant control system.

EN: \$248,000 – Funds will be used for routine operation and maintenance in support of environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$838,000 for routine operation and maintenance of project features jointly used by multiple business lines: HYD – 45% and FRM - 55%. Non-routine Joint activities include Geospatial Land Data Migration Mapping for \$54,000. Dam is currently rated as a Dam Safety Action Classification III structure. Flood damages reduced during FY 2015 were \$8.8 million for a cumulative total of over \$753 million since the inception of the project in 1952. In FY 2012, the annual visitation to the project was 740,600 visitors.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$213,000. There was an additional \$12,000 of unobligated funds that are committed within the Corps for scheduled ongoing

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this project effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rudee Inlet, VA

AUTHORIZATION: River and Harbor Act of 1960, as modified by the Water Resources Development Act of 1996.

LOCATION AND DESCRIPTION: Rudee Inlet is located in Virginia Beach, Virginia. The project is a shallow-draft, low-use navigation channel that provides access from the Atlantic Ocean and serves as a harbor of refuge.

FISCAL YEAR 2016 ALLOCATION: \$511,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for maintenance dredging by the Government dredge CURRITUCK and development of plans for future dredging.

FISCAL YEAR 2017 ALLOCATION: \$1,350,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are being used to dredge the entrance channel, using the government dredge CURRITUCK. Funds are also being used to report conditions to users and prepare plans for future dredging. Additional funds are provided to perform dredging of the entrance channel and sand trap by contract to fully restore the project to maintained dimensions (\$1,000,000).

BUDGETED AMOUNT FOR FY 2018: M: \$520,250 O: \$0 T: \$520,250 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$520,250 – Funds will be used for the USACE Dredge CURRITUCK to remove the critical ebb shoal from inlet.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The City of Virginia Beach as local sponsor contributes a cost share percentage of 28-percent which represents the recreational benefits of the project. The channel is used by the U.S. Navy, Virginia Beach Marine Police, commercial fishing boats, and research vessels from Virginia Marine Science Museum. Dredged material is used beneficially on the oceanfront beach and serves as a major source of nourishment material.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$168,000. There was an additional \$31,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

WASHINGTON

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chief Joseph Dam, WA

AUTHORIZATION: Rivers and Harbor Act of 1946 as modified by the Fish and Wildlife Coordination Act of 1958.

LOCATION AND DESCRIPTION: Chief Joseph Dam is located in Bridgeport, Washington, 545 river-miles above the mouth of the Columbia River, and 51 river-miles downstream from Grand Coulee Dam. The dam consists of a 19-bay, gated, concrete, gravity spillway that abuts the right bank and connects to a curved non-overflow concrete section founded on a rock outcropping. The 2,047-foot-long powerhouse encloses 27 Francis turbines with the greatest installed capacity in the USACE of 2,614 megawatts, two station service generators, maintenance shops and control room, and the visitor center.

FISCAL YEAR 2016 ALLOCATION: \$607,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds provided for the operations and maintenance of recreational facilities and public use areas.

FISCAL YEAR 2017 ALLOCATION: \$628,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is targeted for the operations and maintenance of recreational facilities and public use areas.

BUDGETED AMOUNT FOR FY 2018: M: \$154,000 O: \$482,000 T: \$636,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: \$636,000 – Funding provides for routine operations and maintenance for recreation.

H: Routine O&M is direct funded by the Bonneville Power Administration.

EN: N/A

WS: N/A

OTHER INFORMATION: Chief Joseph Dam is the Corps' largest hydropower project. It supports 12 recreation areas that include a boat-in campground, fishing docks, boat ramps, picnicking, playgrounds, a splash park, trails, and interpretation center. This also includes a project visitor center with displays, restrooms, a theater, and tours in the powerhouse behind the security perimeter. Total visitation to this project for FY 2014 was 267,407 visitors with an estimated benefit to the local economy of \$5.2 million.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$10,000. There was an additional \$4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Columbia and Lower Willamette Rivers below Vancouver, WA and Portland, OR

AUTHORIZATION: Rivers and Harbors Acts 1912 (30-foot channel), 1930 (deepen to 35-feet), 1962 (deepen to 40-feet), 1999 (deepen to 43-feet)

LOCATION AND DESCRIPTION: The high-use, deep-draft Federal navigation channel is in the Columbia River from river-mile 3 to 106.5, and in the Willamette River from its mouth to river-mile 11.6. It covers the Columbia River from just above the mouth to Portland, and the Willamette River from its mouth to Willamette Falls.

FISCAL YEAR 2016 ALLOCATION: \$45,726,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided routine and non-routine dredging needed for safe transit of commercial and recreational vessels.

FISCAL YEAR 2017 ALLOCATION: \$42,804,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides routine and non-routine dredging needed for safe transit of commercial and recreational vessels. Additional funds are provided for minimum maintenance dredging (\$4,373,000), Dredged Material Management Plan (\$150,000), and Columbia River Regional Sediment Management plan (\$100,000).

BUDGETED AMOUNT FOR FY 2018: M: \$43,349,000 O: \$3,418,000 T: \$46,767,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$46,767,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This channel provides environmentally-sustainable, waterborne transportation. Channel maintenance is needed for stabilizing after deepening and high flows in 2011 and 2012. The FY 2018 level of funding for dredging represents the estimate for annual maintenance of the deeper, 43-foot channel. The project is the largest component of the Columbia and Snake River inland waterways and one of the Region's most important transport corridors, providing water access as far inland as Lewiston, ID.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$453,000. There was an additional \$262,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Columbia River at Baker Bay, WA (Baker Bay Channel Dredging at Ilwaco)

AUTHORIZATION: River and Harbor Act of 1933, as amended: (east channel) 1935 (main channel) 1945 (west Channel)

LOCATION AND DESCRIPTION: Baker Bay is a shallow body of water about 15-square miles on the north side of the Columbia River near river mile 3. The active west navigation channel is 16' deep, 150-200 feet wide, and approximately 3.2 miles long. This channel provides access to the Port of Ilwaco, Pacific County, WA.

FISCAL YEAR 2016 ALLOCATION: \$1,155,000

DESCRIPTIONS OF WORK FOR FY 2016: Critical minimum dredging to meet minimum need for safe transit of commercial and recreational vessels.

FISCAL YEAR 2017 ALLOCATION: \$2,459,000

DESCRIPTIONS OF WORK FOR FY 2017: Critical minimum dredging to meet minimum need for safe transit of commercial and recreational vessels. Additional funds are provided for emergency maintenance dredging for Coast Guard access (\$500,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,809,000 O: \$0 T: \$1,809,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,809,000 – Critical minimum dredging to meet minimum need for safe transit of commercial and recreational vessels.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Port of Ilwaco for which the channel provides access is a major local economic feature.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$361,000. There was an additional \$9,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Columbia River between Vancouver, WA and The Dalles, OR

AUTHORIZATION: Rivers and Harbors Act of 1938 (P.L. 75-685), Rivers and Harbors Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Columbia River between Vancouver, WA and The Dalles, OR is a moderate-use, deep-draft Federal navigation channel in the Columbia River from river-mile 106.5 at Vancouver, WA to river-mile 192 at The Dalles Dam.

FISCAL YEAR 2016 ALLOCATION: \$781,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding allowed for routine maintenance dredging to provide safe transit of deep draft commercial vessels and recreational vessels.

FISCAL YEAR 2017 ALLOCATION: \$200,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding will allow for routine maintenance dredging to provide safe transit of deep draft commercial vessels and recreational vessels.

BUDGETED AMOUNT FOR FY 2018: M: \$1,098,000 O: \$148,000 T: \$1,246,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,246,000 – Funding will provide for routine operation and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project operates and maintains the shipping channel for transport of more than 40-percent of United States wheat exports shipped via ports on the Columbia and Willamette Rivers. It also provides a segment for all transit cargo between Portland and Lewiston, ID.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$603,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Northwestern

District: Portland

Columbia River between Vancouver,
WA and The Dalles, OR

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Columbia River Fish Mitigation, WA, OR, and ID

AUTHORIZATION:

- Federal Emergency Administration of Public Works of 1933 and the Public Works Administration of 1935;
- River and Harbor Acts of 1945 and 1950;
- Bonneville Project Act of 1937;
- Flood Control Acts of 1938, 1948, 1950, and 1954;
- Water Resources Development Act (WRDA) of 1986, Section 906(b)(1); WRDA of 1996, Section 511, as amended by WRDA of 1999, Section 582, and WRDA of 2007, Section 5025.

LOCATION AND DESCRIPTION: This Federal project operates and maintains the infrastructure installed by the Columbia River Fish Mitigation improvements to eight hydropower dams and the navigation locks on the Lower Columbia and Snake Rivers. These facilities include juvenile fish bypass systems, fish-passage monitoring facilities, fish-transport barges and moorage, spillway flow deflectors and weirs, adult fish ladders and passage monitoring facilities and lamprey passage facilities.

FISCAL YEAR 2016 ALLOCATION: \$68,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance (O&M) for the Columbia River Fish Mitigation assets.

FISCAL YEAR 2017 ALLOCATION: \$2,194,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine operation and maintenance (O&M) for the Columbia River Fish Mitigation assets.

BUDGETED AMOUNT FOR FY 2018: M: \$183,000 O: \$1,724,000 T: \$1,907,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$947,000 – Funding provides for routine operation and maintenance for the Columbia River Fish Mitigation assets.

FRM: \$960,000 – Funding provides for routine operation and maintenance for the Willamette Valley Fish Mitigation assets.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Columbia River Fish Mitigation program provides mitigation for the impact of USACE dams on migrating salmonids and lamprey. The mitigation measures are a result of the Northwest Power and Conservation Council's regional rebuilding efforts for upriver salmon stocks. In addition, the National Marine Fisheries Service (NMFS) listing of salmon as a threatened or endangered species mandated the need for mitigation measures. These mitigation measures were proposed in the NMFS Biological Opinions on operation of the Federal Columbia River Power System issued in 1995, 1998, 2000, 2004, 2008, the Columbia Basin Fish Accords of 2008, and the 2010 Supplemental Biological Opinion that includes the Adaptive Management Implementation Plan and amendments.

Division: Northwestern

District: Portland

Columbia River Fish Mitigation, WA, OR, & ID

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Everett Harbor and Snohomish River, WA

AUTHORIZATION: River and Harbor Act of 1910 and modified by subsequent acts.

LOCATION AND DESCRIPTION: The moderate-use, deep-draft Federal channel and harbor project is located in central Puget Sound on the eastern shore of Possession Sound. The project channel runs six miles upstream from its mouth at Port Gardner Bay. The project accommodates deep draft shipping in its outer harbor and also barge traffic on the Snohomish River. The project provides for the East Waterway, a 30-foot-deep, 900-foot-wide and 2,400-foot-long channel leading to the facilities on the west side of the Everett Navy Home Port. There is also an 8 to 15 foot-deep by 150 foot-wide channel upstream of the mouth of the Snohomish River. The project includes two settling basins to concentrate shoaling and promote maintenance dredging efficiency. The lower-river channel is flanked by a system of training and spurs dikes.

FISCAL YEAR 2016 ALLOCATION: \$1,472,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds provided for navigational maintenance dredging of upstream navigation channel and settling basins w/upland placement adjacent to the Snohomish River at Site O and Jetty Island. Project condition surveys were conducted to monitor and report channel conditions to the project sponsor, the US Navy, the USCG and other waterway users.

FISCAL YEAR 2017 ALLOCATION: \$2,438,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine maintenance dredging of the lower navigation channel and settling basins with placement in the open water Point Gardner disposal site. Project condition surveys will be conducted to monitor and report channel conditions to the project sponsor, the US Navy, the US Coast Guard (USCG) and other waterway users. Sediment characterization of the channel will be conducted in order to request a new suitability determination for disposal of dredge material. Additional funds are provided to perform maintenance dredging of Lower Clamshell (\$800,000).

BUDGETED AMOUNT FOR FY 2018: M: \$2,010,000 O: \$271,000 T: \$2,281,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,281,000 – Funding provides for routine operations and maintenance for navigation activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The annual shipping tonnage for the waterway averages 1.4 million tons, including aggregate material and high-value aircraft parts for the Everett Boeing 747 and 787 assembly facility. In FY 2015, 80,863 cubic-yards of dredged material were removed from the channel and placed in the Port Gardner open water disposal site.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$43,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing

Division: Northwestern

District: Seattle Everett Harbor and Snohomish River, WA

requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Grays Harbor, WA

AUTHORIZATION: The Rivers and Harbors Act of 1935 and Section 202 of the Water Resource Development Act of 1986

LOCATION AND DESCRIPTION: Grays Harbor is a moderate-use, deep-draft harbor located on the southwest coast of Washington State. The project's 24-mile long channel and entrance structures serve deep-draft commerce to the Port of Grays Harbor and facilities at the cities of Aberdeen, Hoquiam, and Cosmopolis, Washington. The deep-draft channel is secured by a complex system of coastal structures including the north and south jetties, groins, revetments and timber breakwaters. The North Jetty is at the south end of Ocean Shores and the South Jetty is at Westport, near Half Moon Bay. The Point Chehalis Revetment and Groins are located along the north and west edge of Westport. The breakwaters provide protection for the Westport Marina.

FISCAL YEAR 2016 ALLOCATION: \$17,403,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds provided for routine operations and maintenance for navigation activities, including extensive export activity, USCG Search & Rescue, Tribal fishing activities and critical fleet maintenance support service. Routine work included outer harbor hopper dredging and inner harbor clamshell dredging. Industry hopper dredge performed outer harbor annual dredging to provide safe bar and entrance channel conditions. Project condition surveys were conducted to apprise navigation users and the USCG of channel conditions. Additionally, catch-up dredging was performed in the inner harbor and the Westhaven Cove Marina breakwater and Point Chehalis revetment was repaired.

FISCAL YEAR 2017 ALLOCATION: \$13,334,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine operations and maintenance for navigation activities, including extensive export activity, USCG Search & Rescue, Tribal fishing activities and critical fleet maintenance support service. Routine work includes outer harbor hopper dredging and inner harbor clamshell dredging. Sediment characterization of the channel will be conducted in order to request a new suitability determination for disposal of dredge material. Additional funds are provided for Inner Harbor dredging – Clamshell Dredge (\$1,828,000) and entrance channel dredging at Westhaven Cove Marina (\$1,508,000).

BUDGETED AMOUNT FOR FY 2018: M: \$10,776,000 O: \$934,000 T: \$11,710,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$11,710,000 – Funding provides for routine operations and maintenance for navigation activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Current annual shipping averages 2-million tons and is expected to increase to 3-million tons. The majority of the cargo is exported automobiles from Chrysler and is augmented by bulk agricultural and timber exports. Coordination and dredge sequencing occurs with the Quinault Tribe who

Division: Northwestern

District: Seattle

Grays Harbor, WA

owns a fish processing plant in Westhaven Marina and has an active fishing fleet in the project area. The Seattle District is a participant in the Crab Mitigation working group.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$13,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Howard A. Hanson Dam, WA

AUTHORIZATION: Rivers and Harbors Act and Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The project is 35 miles east of Tacoma in King County, Washington and located on the upper reach of the Green-Duwamish River, 64 river miles above the mouth. It is in the City of Tacoma's municipal watershed, which is protected from public access.

FISCAL YEAR 2016 ALLOCATION: \$3,364,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine O&M for flood risk management, actions mandated for compliance with the Biological Opinion on three ESA listed species and non-routine maintenance to initiate the analysis and design to rehabilitate or replace two Spillway Gates and design security improvements to comply with USACE infrastructure security requirements.

FISCAL YEAR 2017 ALLOCATION: \$3,822,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine operation and maintenance for flood risk management and environmental stewardship. Non-routine work includes support for the fish passage project and hydraulic steel structure painting & lead abatement.

BUDGETED AMOUNT FOR FY 2018: M: \$1,208,000 O: \$2,611,000 T: \$3,819,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,596,000 – Funding provides for operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: \$223,000 – Funding provides for operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The facility provides flood protection within the Green-Duwamish watershed with an estimated \$17 billion in prevented flood damages since 1962. The Biological Opinion and the Endangered Species Act mandate the construction and annual maintenance of mitigation sites consisting of gravel and woody debris nourishment to the river below the dam.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$5,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ice Harbor Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 12 miles east of Pasco, Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 603 Megawatts, a navigation lock with a vertical lift of 100 feet, moderate-use waterway, two fish ladders, reservoir that has a water surface area of 9,200 acres, 3,576 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish bypass facility.

FISCAL YEAR 2016 ALLOCATION: \$9,042,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used to meet the operations and maintenance requirements for the navigation, hydropower, cultural resources, fish and wildlife, other joint, security and recreation. Non-routine will include downstream gate operating machinery and bull gear replacement and plans and specs for the replacement of the trunnion hubs on the upstream tainter gate, also finalize upgrade of the telephone systems for safe and reliable communication for the remote multipurpose project.

FISCAL YEAR 2017 ALLOCATION: \$4,760,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical lock operations to ensure continued safe and reliable operations to avoid unscheduled navigation lock outages. Also includes the navigation component for the operations and maintenance of the joint features of the project. Non-routine will include small capital improvements.

BUDGETED AMOUNT FOR FY 2018: M: \$3,231,000 O: \$2,279,000 T: \$5,510,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,753,000 – Funding will provide for Operations and Maintenance (O&M) for navigation. Within the Joint funding there is a total of \$15,000 provided for sustainability for a charging station for an electric vehicle.

FRM: N/A

RC: \$1,612,000 – Funding will provide for Operations and Maintenance (O&M) for recreation. There is a \$350,000 in funding to install a water treatment system at Fishhook Park, to remove nitrates from the public potable water, a critical public health issue.

H: Routine and non-routine operation and maintenance (O&M) for hydropower is direct funded by the Power Marketing Agency.

EN: \$84,000 – Funding provides for Operations and Maintenance (O&M) for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$2,061,000 for project features jointly used by multiple business lines: NAV - 100.0%. Traffic through the navigation lock consists of grain, petroleum products, fertilized, wood products and miscellaneous cargo that amounted to more than 2.1 million tons in 2008. There are 3,517 acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

Division: Northwestern

District: Walla Walla

Ice Harbor Lock and Dam, WA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,402,000. There was an additional \$20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Washington Ship Canal, WA

AUTHORIZATION: River and Harbor Act of 1910, House Document 953, 60th Congress

LOCATION AND DESCRIPTION: Located in the City of Seattle, King County, Washington, the 30-foot deep canal connects Puget Sound on the west with Lake Washington eight miles to the east. A dam, a gated spillway, a fish ladder and two navigational locks are located one and one-half miles east of the west entrance. The canal and locks provide a deep-draft navigation link from the freshwater Lake Washington and Lake Union to the saltwater Puget Sound.

FISCAL YEAR 2016 ALLOCATION: \$12,070,000

DESCRIPTIONS OF WORK FOR FY 2016: Funds provided for routine operation and maintenance for navigation, recreation and environmental stewardship. Significant non-routine work included a completion of the design for the emergency closure system crane replacement; continued design for replacement of the filling culvert valves; and additional small sustainability improvements around the project. In addition, funds were used to dredge the small lock entrance, continue work to replace the dewatering pumping plant, repair the drainage system and fire line at the Cavanaugh slope, make security improvements and flush the miter gate hydraulic system.

FISCAL YEAR 2017 ALLOCATION: \$15,604,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine operation and maintenance for navigation, recreation and environmental stewardship. Non-routine funded work includes replacement of the emergency closure system (ECS) crane (\$2,152,000). Pump plant replacement work, initiated in FY 2016 will continue through FY2017. In addition, funds are provided for ECS hydraulic hoist rehab (\$120,000), internal inspection of large lock gates (\$225,000), large lock sill replacement for #1 miter gates (\$50,000), small lock west work gate seal replacement (\$10,000), smolt flume fabrication (\$230,000), Maintenance of fisheries, fish haulage activities (\$50,000), One-ton dump truck (\$54,000), filling culvert valve design plans and specifications (\$280,000), buoy retirement, phase 2 anchor removal (\$100,000), and fund a ranger for visitor assistance (\$8,000).

BUDGETED AMOUNT FOR FY 2018: M: \$3,176,000 O: \$6,694,000 T: \$9,870,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$8,773,000 – Funding provides for operation and maintenance for navigation. Non-routine work includes replacement of the filling culvert valves (\$9,800,000).

FRM: N/A

RC: \$772,000 – Funding provides for operation and maintenance for recreation.

H: N/A

EN: \$325,000 – Funding provides for operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: This is the busiest navigation lock in the United States. The recreation area of the Lake Washington Ship Canal project supports three public use areas that included the Corps' only botanical garden, a fish ladder, two salt-freshwater locks, waterside pedestrian trails and a water trail, interpretation, and a class A regional Visitor Center with displays, restrooms, a theater, and tours.

Division: Northwestern

District: Seattle

Lake Washington Ship Canal, WA

Recreation of the Lake Washington Ship Canal project received over 1.2 million visitors per year with an estimated benefit to the local economy of \$23 million. Since 2002, an average of 14,000 lockages, 49,000 boats, and over one million tons of cargo has passed through the locks annually. The project stabilized the elevation of Lake Washington within a narrow range, allowing for the construction of floating bridges (Interstate 90 and State Route 520) across the lake to connect Seattle with its burgeoning eastern suburbs. The project will celebrate its centennial on 4 July 2017.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$253,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Little Goose Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 50 miles west of Lewiston Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, moderate-use waterway, two fish ladders, a reservoir that has a water surface area of 10,025 acres, 5,398 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading, and bypass facilities.

FISCAL YEAR 2016 ALLOCATION: \$6,031,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used to meet the operations and maintenance requirements for the navigation, cultural resources, fish and wildlife, security and recreation. Non-routine activities include projects to preclude forced facility closure/outages and contract award of the navigation lock downstream miter gate repair; also the design phase for the tainter valves 1 and 2 rehab.

FISCAL YEAR 2017 ALLOCATION: \$2,741,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical lock operations to ensure continued safe and reliable operations to avoid unscheduled navigation lock outages. Also includes the navigation component for the operations and maintenance of the joint features of the project. Non-routine activities include projects to preclude forced facility closure/outages and the replacement of the failed trash shear boom in the forbay.

BUDGETED AMOUNT FOR FY 2018: M: \$1,668,000 O: \$1,168,000 T: \$2,836,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,773,000 – Funding provides for routine Operations and Maintenance (O&M) for navigation.

FRM: N/A

RC: \$430,000 – Funding provides for routine Operations and Maintenance (O&M) for recreation.

H: Routine and non-routine operation and maintenance for hydropower is direct funded by the Power Marketing Agency.

EN: \$40,000 – Funding provides for routine Operations and Maintenance (O&M) for environmental stewardship. Includes non-routine funding for an update to the 1969 master plan.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$593,000 for project features jointly used by multiple business lines: NAV - 100.0%. Traffic through the navigation lock consists of grain, petroleum products, fertilized, wood products and miscellaneous cargo that amount to more than 1.8 million tons in 2008. There are 5,143 acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$2,154,000. There was an additional \$20,000 of unobligated funds that are committed within the Corps for scheduled

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lower Granite Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 33 miles west of Lewiston, Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 100 feet, moderate-use waterway, one fish ladder, a system of levees and pumping plants, a reservoir that has a water surface area of 8,900 acres, 5,778 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading, and bypass facilities, and adult-fish trapping facilities.

FISCAL YEAR 2016 ALLOCATION: \$3,350,000

DESCRIPTIONS OF WORK FOR FY 2016: Funded routine activities for cultural resources, fish and wildlife, navigation, security issues, and recreation. Non-routine activities included small capital improvements, projects to improve plant performance and preclude forced facility closure/outages, and the design phase for the tainter valve rehab and the D/S Miter Gate South Leaf Pintle Bearing and Grease Line.

FISCAL YEAR 2017 ALLOCATION: \$3,218,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical lock operations to ensure continued safe and reliable operations to avoid unscheduled navigation lock outages. Also includes the navigation component for the operations and maintenance of the joint features of the project. Non-routine activities include small capital improvements, projects to improve plant performance and preclude forced facility closure/outages.

BUDGETED AMOUNT FOR FY 2018: M: \$2,872,000 O: \$1,660,000 T: \$4,532,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,930,000 – Funding does not provide for full operations and maintenance for recreation for navigation. Additional funds are provided for miter gate pintle bearing grease line replacement (\$900,000).

FRM: N/A

RC: \$1,491,000 – Funding does not provide for full operations and maintenance for recreation.

H: Routine operation and maintenance for hydropower is direct funded by the Power Marketing Agency.

EN: \$9,000 – Funding does not provide for full operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$102,000 for project features jointly used by multiple business lines: NAV - 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilized, wood products and miscellaneous cargo that amount to more than 1.2 million tons in 2008. There are 13,000 acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

Division: Northwestern

District: Walla Walla

Lower Granite Lock and Dam, WA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,255,000. There was an additional \$20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lower Monumental Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 45 miles northeast of Pasco, Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, moderate-use waterway, two fish ladders, and a reservoir that has a water surface area of 6,590 acres, 8,336 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading, and bypass facilities.

FISCAL YEAR 2016 ALLOCATION: \$6,966,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding was used to meet the operations and maintenance requirements for the navigation, cultural resources, fish and wildlife, other joint, security and recreation. Non-routine activities included projects to preclude forced facility closure/outages, vulnerability assessments and contract award of the replacement of the navigation lock downstream gate mechanical system. Also the design phase for the four navlock tainter valves and the completion of the floating guide wall repair.

FISCAL YEAR 2017 ALLOCATION: \$2,860,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds routine operations and maintenance requirements of critical lock operations to ensure continued safe and reliable operations to avoid unscheduled navigation lock outages. Non-routine activities include projects to preclude forced facility closure/outages, and vulnerability assessments.

BUDGETED AMOUNT FOR FY 2018: M: \$2,461,000 O: \$1,175,000 T: \$3,636,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,504,000 – Funding provides for routine operations and maintenance for navigation.

FRM: N/A

RC: \$493,000 – Funding provides for routine operations and maintenance for recreation.

H: Routine and non-routine operation and maintenance for hydropower plant is direct funded by the Power Marketing Agency.

EN: \$51,000 – Funding provides for routine operations and maintenance for environmental stewardship. Non-routine will include an update to the thirty-nine year old master plan.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$588,000 for project features jointly used by multiple business lines: NAV - 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilized, wood products and miscellaneous cargo that amount to more than 2.1 million tons in 2008. There are 8,335 acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,167,000. There was an additional \$45,000 of unobligated funds that are committed within the Corps for scheduled

Division: Northwestern

District: Walla Walla

Lower Monumental Dam, WA

ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mill Creek Lake, WA

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on Mill Creek, River Mile 11.5, east of Walla Walla, Washington. The project was constructed to prevent flooding of the City of Walla Walla. The project includes the dam, a reservoir that has a gross storage capacity of 8,300 acre-feet of water, a flood control channel, 612 acres of land that provides recreation facilities and wildlife mitigation habitat, and a diversion dam and levee with two fish ladders.

FISCAL YEAR 2016 ALLOCATION: \$2,627,000

DESCRIPTIONS OF WORK FOR FY 2016: Funded routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations of the flood risk management mission, minimum recreation, and environmental stewardship. Non-routine funding will be used for boundary survey, fence repairs, encroachment resolution and rehabilitate the return canal expansion joints.

FISCAL YEAR 2017 ALLOCATION: \$2,490,000

DESCRIPTIONS OF WORK FOR FY 2017: Funded routine operations and maintenance requirements of critical operations to ensure continued safe and reliable operations of the flood risk management mission, minimum recreation, and environmental stewardship. Non-routine funding will be used to inspect and repair a 500' - 42" Concrete Cylinder Pipe that runs from the Bennington Lake dam to the return canal.

BUDGETED AMOUNT FOR FY 2018: M: \$3,007,000 O: \$1,485,000 T: \$4,492,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$3,791,000 – Funding provides for routine operations and maintenance for flood risk management. One non-routine work package will be funded for \$400K for levee vegetation removal. The Mill Creek right bank is Levee Safety Action Classification 2 and left bank is Levee Safety Action Classification 3; maintenance of the levees is required to maintain the as-designed project integrity and to meet minimum levee engineering standards. Additional funds are provided for diversion dam and debris barrier maintenance (\$300,000), cleaning of diversion dam plugged relief drains (\$388,000), forebay cleanout at Yellowhawk/Garrison Creek diversion works (\$28,000), intake canal and diversion dam diffuser block rehab (\$368,000), replace Yellowhawk/Garrison Creek needle gates, (\$289,000), and return channel bank armor rehabilitation (\$168,000).

RC: \$409,000 – Funding provides for routine operations and maintenance for recreation.

H: N/A

EN: \$292,000 – Funding provides for routine operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The project consists of two main units, the Mill Creek Channel and Bennington Lake, and the off-channel reservoir and associated federal lands. The project provides for flood damage reduction, recreation, wildlife habitat and irrigation. Since 1942, more than \$62.9 million in potential flood damages have been prevented by Mill Creek Project's combined storage and channel operations.

Division: Northwestern

District: Walla Walla

Mill Creek Lake, WA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$47,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mount St Helens Sediment Control, WA

AUTHORIZATION: Supplemental Appropriation Act of 1985 (P.L. 99-88)

LOCATION AND DESCRIPTION: The sediment retention structure is 36-miles east of Longview, WA and located on the North Fork Toutle River, a tributary of the Cowlitz River in Cowlitz County. The project consists of a sediment retention structure designed to decrease sediment transport to the Cowlitz and Columbia Rivers and reduce the risk of flooding.

FISCAL YEAR 2016 ALLOCATION: \$254,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine O&M of the sediment retention structure, project service facilities, and permanent operating equipment.

FISCAL YEAR 2017 ALLOCATION: \$399,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is providing for routine O&M of the sediment retention structure, project service facilities, and permanent operating equipment.

BUDGETED AMOUNT FOR FY 2018: M: \$43,000 O: \$225,000 T: \$268,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$268,000 – Funding will provide for routine operation and maintenance for flood risk management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project's authorized purpose is to provide a permanent solution to potential flooding on the Cowlitz River caused by sedimentation resulting from the eruption of Mount St. Helens.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$8,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mud Mountain Dam, WA

AUTHORIZATION: Section 5 of the Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is six miles southeast of Enumclaw, Washington and 38 miles east of Tacoma, Washington and located on the White River at river mile 30. The facility provides flood protection within the White River and lower Puyallup River watershed. When the original flood control project was built in 1948, an upstream fish trap and haul facility was constructed at the Buckley Barrier Structure, six miles downstream of the dam to facilitate migration. The facility is still used annually to capture salmonids for transportation upstream to a release site five miles above the dam.

FISCAL YEAR 2016 ALLOCATION: \$9,900,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance for flood risk management, upstream truck and haul of migrating salmonids including three ESA listed species and non-routine maintenance to initiate the replacement of the steel liner of the 9 foot tunnel (\$5,332,000).

FISCAL YEAR 2017 ALLOCATION: \$12,106,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used for routine operation and maintenance for flood risk management, recreation and environmental stewardship. In addition, non-routine maintenance to design and construct security improvements and to continue replacement of the steel liner of the 9 foot tunnel.

BUDGETED AMOUNT FOR FY 2018: M: \$1,664,000 O: \$3,298,000 T: \$4,962,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$4,546,000 – Funding will be used for operation and maintenance for flood risk management. Additional funds are provided for construction oversight of the 9 foot tunnel liner permanent repair.

RC: \$273,000 – Funding will be used for operation and maintenance for recreation.

H: N/A

EN: \$143,000 – Funding will be used for operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: Mud Mountain Dam project is a convenient stop-point along the Mt. Rainier Scenic Loop. It supports three recreation day use areas that include the Corps' only kid's swimming pool, picnicking, playgrounds, trails, viewing areas, and interpretation. Visitation for FY 2014 was 115,071 with an estimated benefit to the local economy of \$2.4 million. The dam provides flood protection within the White River watershed with an estimated \$2.9 billion in flood damages prevented since 1948. During the peak flood season, the dam provides up to 106,000 acre-feet of flood storage.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$6,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Port Townsend, WA

AUTHORIZATION: Rivers and Harbor Act of July 3, 1958

LOCATION AND DESCRIPTION: The project provides for a mooring basin and breakwater. The basin has an area of 12.5 acres and depths of 10 and 12 feet in the inner and outer sections, respectively. The basin is surrounded by a gravel and rock fill breakwater 1,946 feet long. This is a low commercial use, shallow draft waterway.

FISCAL YEAR 2016 ALLOCATION: \$1,000

DESCRIPTIONS OF WORK FOR FY 2016: N/A

FISCAL YEAR 2017 ALLOCATION: \$286,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are provided to perform sediment characterization to determine if dredge material is suitable for open water disposal.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$3,000 T: \$3,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,000 – Funding provides for routine operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This is a critical port for the 87 foot U.S. Coast Guard (USCG) Cutter Osprey, which is stationed in Port Townsend.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Puget Sound and Tributary Waters, WA

AUTHORIZATION: The River and Harbor Act of 1892 (27 Stat. 88)

LOCATION AND DESCRIPTION: The Puget Sound and its Tributary Waters project is a moderate-use, deep-draft Federal harbor project located in northwestern Washington State. The goal of the project is to remove all hazards to navigation in the Federal Navigation Channels. Project provides year round routine operations and maintenance for the debris vessel M/V PUGET and support vessels including three large flat-deck barges. The goal of the project is to remove all hazards to navigation in the Federal Navigation Channels within Puget Sound.

FISCAL YEAR 2016 ALLOCATION: \$1,188,000

DESCRIPTIONS OF WORK FOR FY 2016: Funded activities included the removal and disposal of hazards to navigation composed of man-made and large woody debris in the Federal Navigation Channel waters of Puget Sound, thus reducing collision hazards for the shipping industry and public users.

FISCAL YEAR 2017 ALLOCATION: \$1,240,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds target activities including the removal and disposal of hazards to navigation composed of man-made and large woody debris in the Federal Navigation Channel waters of Puget Sound, thus reducing collision hazards for the shipping industry and public users.

BUDGETED AMOUNT FOR FY 2018: M: \$230,000 O: \$1,683,000 T: \$1,913,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,913,000 – Funding provides for routine operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: As part of this project, 9,000 to 11,000 tons of debris is removed annually. The woody debris is available to municipalities and the State of Washington for restoration work at no charge while other debris is stockpiled and disposed of appropriately. In addition to debris cleanup, the PUGET is used, in coordination with the U.S. Coast Guard, as a major oil-spill response clean-up vessel in the event of a major oil spill in Puget Sound.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$3,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Quillayute River, WA

AUTHORIZATION: River and Harbor Act of 1930 (46 Statute 918)

LOCATION AND DESCRIPTION: The project is low-use, shallow-draft Federal harbor located on Washington's Pacific coast at the mouth of the Quillayute River at La Push. It lies within the Quileute Tribal Reservation which is bounded by the Olympic National Park. The project consists of a channel 10-foot deep and 75- to 100-foot wide, running from deep water to the Quileute Tribe marina. The marina is protected by a timber-pile breakwater and provides moorage for the US Coast Guard. The entrance is protected by two federal structures, a jetty on the south and a dike on the north. The dike runs between a natural spit and James Island. There is a Federal responsibility to protect the spit that has been armored.

FISCAL YEAR 2016 ALLOCATION: \$199,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for the engineering and design and environmental work needed to prepare the contract package for the repair of the Sea Dike, when it is funded. The E&D provided a current design that allows for a better cost estimate, which is currently outdated.

FISCAL YEAR 2017 ALLOCATION: \$4,199,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides routine maintenance dredging of the Quillayute channel. Method of dredging is hydraulic pipeline dredging with upland disposal for nourishing eroding beaches. Project condition surveys will be conducted to monitor and report channel conditions to the Tribe and the US Coast Guard (USCG). Funding also provides for communication services for the permanently mounted web camera used to monitor beach erosion at the South Jetty. Sediment characterization of the channel will be conducted in order to request a new suitability determination for disposal of dredge material. Additional funds are provided for maintenance dredging (\$380,000) and Rialto Beach revetment interim emergency repair (\$2,200,000).

BUDGETED AMOUNT FOR FY 2018: M: \$220,000 O: \$63,000 T: \$283,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$283,000 – Funding provides for operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project is the only access to the Usual and Accustomed fishing grounds for the Quileute Tribe. Due to extreme shoaling and use of this waterway for US Coast Guard Search and Rescue Operations, the rating for this harbor has been modified from "acceptable" to "critical." To mitigate for poor channel conditions, a web-based construction camera has been installed to monitor the channel, the South Jetty, and Sea Dike. To assist the Quileute Tribe and US Coast Guard (USCG), the USACE Seattle District has increased the hydrographic survey frequency to monitor shoaling of channel and USCG Search and Rescue moorage facilities.

Division: Northwestern

District: Seattle

Quillayute River, WA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$842,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Seattle Harbor, WA

AUTHORIZATION: The Rivers and Harbors Act of 1919 (40 Statute 1275)

LOCATION AND DESCRIPTION: Seattle Harbor is a high-use, deep-draft Federal harbor located on the east side of central Puget Sound in northwest Washington. The project is located on the lower Duwamish River from Elliott Bay, upstream, five miles to the head of the Federal navigation channel. The project consists of the East Waterway, 34-to 51-feet deep; the West Waterway, 34-feet deep; and the Duwamish Waterway, 30-feet deep for 2.6 miles, 20-feet deep for 0.8 miles, and 15-feet deep for 1.8 miles to the head of navigation.

FISCAL YEAR 2016 ALLOCATION: \$1,796,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding in the amount of \$565,000 provided for project management for this off-cycle year – project is dredged every two years. Last dredged in FY 15. While no dredging occurs, significant coordination with sponsor, Tribe, waterway users, and local stakeholders continued throughout the year. Funding also provided multi-beam and side scan sonar channel project condition survey to report conditions to extensive and diverse waterway users. Area surveyed was the entire project from end to end, performed twice yearly to determine shoaling patterns in this rapidly changing waterway. Also included in the surveys were East and West Waterways evaluations as deep draft vessels are regularly calling on these waterways. Additionally, \$1,403,000 provided Harbor Maintenance Tax rebates to importers.

FISCAL YEAR 2017 ALLOCATION: \$3,505,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for dredging of the Upper Turning Basin and downstream reaches. Funding also provides channel project condition survey of all three waterways to report conditions to the U.S. Coast Guard, the Puget Sound Pilots, and extensive and diverse waterway users. Sediment characterization of the channel will be conducted in order to request a new suitability determination for disposal of dredge material. Also, funds are provided for maintenance dredging (\$400,000), and Seattle Harbor Donor and Energy Transfer Port activities (\$1,558,000).

BUDGETED AMOUNT FOR FY 2018: M: \$299,000 O: \$90,000 T: \$389,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$389,000 – Funding provides for routine operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Annual shipping handled by Seattle Harbor is estimated at 26-million tons, much of it as container cargo. The Port of Seattle is a donor port to the Harbor Maintenance Trust Fund. The Duwamish Waterway is a heavily used working waterway for Alaska-bound containerized and break-bulk freight, aggregate and cement products, commercial fishing, Tribal fishing, and ship building and repair.

Division: Northwestern

District: Seattle

Seattle Harbor, WA

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,426,000 of which \$1,403,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillaguamish River, WA

AUTHORIZATION: The Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is located downstream of Arlington in Snohomish County, in northwestern Washington; 47 miles north of Seattle. The project provides for channel and bank improvements to reduce bank erosion and channel changes on the Stillaguamish River. The project covers the area between Arlington and the head of Hat Slough, a distance of 15 miles, and on Cook Slough for 3 miles. The project includes revetments at 26 places on the river and structures at Cook Slough; a concrete control weir 275-feet long between steel, sheet-pile piers at the head to limit flow through the slough; and two cut-off channels, each about 900-feet long, to eliminate sharp bends.

FISCAL YEAR 2016 ALLOCATION: \$287,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine Operations and Maintenance (O&M) for Flood Risk Management.

FISCAL YEAR 2017 ALLOCATION: \$292,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine Operations and Maintenance (O&M) for Flood Risk Management.

BUDGETED AMOUNT FOR FY 2018: M: \$11,000 O: \$292,000 T: \$303,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$303,000 – Funding provides for routine operations and maintenance for Flood Risk Management. Additional funds are provided to convert real estate maps of the Stillaguamish river project to GIS format (\$11,000).

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since its construction in 1939, the project is estimated to have prevented \$17 million in flood damages.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Swinomish Channel, WA

AUTHORIZATION: 1892 Rivers and Harbor Act

LOCATION AND DESCRIPTION: The Swinomish Channel is a low use shallow draft project inland passage, 11 miles long, between deep water in Saratoga Passage to deep water in Padilla Bay, in northwestern part of Washington, about 60 miles north of Seattle, Washington. The project provides for a protected channel between south and north Puget Sound and to the San Juan Islands. The channel is 100 feet wide by 12 feet deep.

FISCAL YEAR 2016 ALLOCATION: \$70,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for labor and a MIPR to Pacific Northwest National Laboratory for continuing work on the model that was used to model sediment movement in and around the south jetty. This modeling is necessary to identify a recommended solution to reduce sediment shoaling within the Federal channel at the south entrance, reducing the need for frequent dredging.

FISCAL YEAR 2017 ALLOCATION: \$751,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for conducting sediment characterization of the channel in order to request a new suitability determination for disposal of dredge material. Additional funds are provided for South Jetty Lidar and Bathymetry survey (\$315,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,528,000 O: \$0 T: \$1,528,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,528,000 – Funding provides for routine operations and maintenance for navigation activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: OTHER INFORMATION: The Swinomish Channel is used for commercial log towing and barge traffic, and provides a heavy weather bypass route for commercial ferries traveling between Seattle and the San Juan Islands and British Columbia, Canada. The channel also supports heavy recreational use. On a typical day, several hundred vessels transit the channel traveling between north and south Puget Sound. It also provides access to the City of La Conner waterfront, Swinomish Tribal fish processing facility and to several marinas. Commerce has averaged 287,000 tons over the last 5 years. Channel dredging typically occurs on a five-year cycle, depending upon actual shoaling.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$51,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tacoma Harbor, WA

AUTHORIZATION: Rivers and Harbors Act, March 3, 1905

LOCATION AND DESCRIPTION: The project is located in Tacoma, Washington. Provides for (a) channel in City Waterway 500 feet wide and 29 feet deep from deep water in Commencement Bay to 11th Street Bridge, 500 feet wide and 22 feet deep to 14th Street Bridge, and varying from 500 to 250 feet wide and 19 feet deep from 14th Street Bridge to end of this waterway, a total length of 8,500 feet; (b) channel in Hylebos Waterway 30 feet deep, 3.1 miles long, and 200 feet wide except where width is increased to 250 feet at the bend below East 11th Street, to 300 feet at Lincoln Avenue bend, and to 510 feet and 770 feet, respectively, at the channel widening above Lincoln Avenue and the turning basin at the head of the waterway; (c) construction of two training walls, each about 700 feet long at mouth of Puyallup River; (d) channel in Blair Waterway 2.6 miles long, including a portion seaward of East 11th Street 650 feet wide and 51 feet deep over southerly 350 feet, and 51 feet deep over northerly 300 feet; and remaining portion 51 feet deep and 150 feet wide at East 11th Street, 600 feet wide between East 11th Street and Lincoln Avenue, and 300 feet wide between Lincoln Avenue and a 1,200-foot wide turning basin at head of waterway. All depths refer to the plane of mean lower low water.

FISCAL YEAR 2016 ALLOCATION: \$1,385,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for Harbor Maintenance Tax rebates to importers.

FISCAL YEAR 2017 ALLOCATION: \$1,637,000

DESCRIPTIONS OF WORK FOR FY 2017: Funds are provided for commencement of bay disposal site monitoring (\$100,000) and Tacoma Harbor Donor and Energy Transfer Port activities (\$1,537,000).

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$5,000 T: \$5,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$5,000 – Funding provides for routine operations and maintenance for navigation.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Blair Waterway is the primary waterway for the Port of Tacoma which has recently expanded its container business by over 30% (5-7 million additional tons high value containers shipped) with the addition of the Grand Alliance shipping groups.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,385,000 of which \$1,384,000 was for Donor/Energy Ports funds. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tacoma-Puyallup River, WA

AUTHORIZATION: The Flood Control Act of 1936 (P.L. 74-738), and the River and Harbor and Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: The project is located on the Puyallup River near Tacoma, Washington and is part of the flood protection infrastructure for the City of Tacoma. The project was planned in conjunction with Mud Mountain Dam, and affords protection against floods 50-percent greater than the maximum discharge of record.

FISCAL YEAR 2016 ALLOCATION: \$178,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine Operations and Maintenance (O&M) for Flood Risk Management.

FISCAL YEAR 2017 ALLOCATION: \$155,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding provides for routine Operations and Maintenance (O&M) for Flood Risk Management.

BUDGETED AMOUNT FOR FY 2018: M: \$69,000 O: \$157,000 T: \$226,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$226,000 – Funding provides for routine operations and maintenance for Flood Risk Management. Additional funds are provided to convert real estate maps of the Tacoma Puyallup River project to GIS format (\$42,000) and perform land tract validation (audit) for Tacoma Puyallup River project (\$27,000).

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since 1950, the project is estimated to have prevented \$122 million in flood damages.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: The Dalles Lock and Dam, WA and OR

AUTHORIZATION: The Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The Dalles Dam is 90 miles east of Portland on the Columbia River between Washington and Oregon. It is a multi-purpose with hydropower Federal project. It consists of a dam with spillways, fish passage, a navigation lock, a powerhouse, a reservoir (Lake Celilo), and recreation sites.

FISCAL YEAR 2016 ALLOCATION: \$14,020,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding provided for routine operation and maintenance for navigation lock, recreation, and environmental stewardship. Also includes navigation lock controls upgrade, miter gate replacement, and upstream gate replacement.

FISCAL YEAR 2017 ALLOCATION: \$4,367,000

DESCRIPTIONS OF WORK FOR FY 2017: Funding is being used for routine operation and maintenance for navigation lock, recreation, and environmental stewardship. Also includes funding for engineering and design and contract oversight and supervision for the navigation lock controls contract. Additional funding is being used to renew two park leases (\$161,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,064,000 O: \$2,712,000 T: \$3,776,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$979,000 – Funds will be used for routine operation and maintenance for navigation.

FRM: N/A

RC: \$797,000 – Funds will be used for routine operation and maintenance for recreation.

H: N/A

EN: \$375,000 – Funds will be used for routine operation and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: The budgeted amount for the project includes \$1,625,000 for routine operation and maintenance of project features used by multiple business lines: NAV – 100%. Non-routine activities on jointly used features include \$196,000 for a major rehab report. The project provides for navigation and hydroelectric power generation. The powerhouse has 26 main generating units with a capacity of 1,800-megawatts, and generated 6,728,000 megawatt-hours of electricity in FY 2013, enough for 621,000 homes. It also provides fish-passage facilities including two ladders and a fish lock. Dispersed recreation occurs at four minimally developed sites and on over 4000 acres of lands and natural resource areas surrounding Lake Celilo.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$345,000. There was an additional \$37,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

WEST VIRGINIA

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beech Fork Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is located in Wayne County, WV on Beech Fork of Twelvepole Creek. It is 3.7 miles above the mouth and 2 miles southeast of Lavalette. The project includes operation and maintenance (O&M) of Beech Fork Lake. The lake is impounded by a rolled earth fill dam with a maximum height of 86 feet and a crest length of 1,080 feet. The dam was completed in February of 1977.

FISCAL YEAR 2016 ALLOCATION: \$1,521,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$1,386,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$939,000 O: \$907,000 T: \$1,846,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,427,000 - Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, inspections, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management. Non-routine activities include a sustainability package for potable water lines (\$305,000) and replacement bulkhead crane and monorail system (\$75,000).

RC: \$326,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$93,000 - Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. In addition, the project will complete a mark boundary survey.

WS: N/A

OTHER INFORMATION: The project has prevented over \$21,649,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 751,000 and average annual visitation from 2008 to 2012 exceeded 1,173,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$147,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bluestone Lake, WV

AUTHORIZATION: Section 5 of the Flood Control Act (FCA) of 1936 (P.L. 74-738) as amended by Section 4 of the FCA 1938 (P.L. 75-761) incorporating the Executive Order of the President 7183A of 1935

LOCATION AND DESCRIPTION: Bluestone Lake is in Summers County, WV on the New River, a tributary of the Kanawha River; 64.8 miles above the mouth of the New River. The project includes operation and maintenance (O&M) of Bluestone Lake. The lake is impounded by a concrete gravity dam with a gated spillway. The top length of the dam is 2,048 feet with a maximum height of 165 feet. The dam was completed in December of 1947.

FISCAL YEAR 2016 ALLOCATION: \$2,023,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) activities, update of the Interim Risk Reduction Measures Plan, performing an emergency exercise, and procuring and installing a cable reel system.

FISCAL YEAR 2017 ALLOCATION: \$2,000,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and upgrading ladders and safety cages.

BUDGETED AMOUNT FOR FY 2018: M: \$1,149,000 O: \$1,134,000 T: \$2,283,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,649,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management. In addition, prepare plans and specs to replace multiple components of crest gate machinery.

RC: \$400,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$234,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. In addition, the project will complete Mark Boundary survey.

WS: N/A

OTHER INFORMATION: The project has prevented over \$2,277,814 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 1,585,000 and average annual visitation from 2008 to 2012 exceeded 1,744,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$225,000. There was an additional \$38,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Huntington

Bluestone Lake, WV

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Burnsville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Burnsville Lake is located in Braxton County, WV on the Little Kanawha River. It is 124.2 miles above its confluence with the Ohio River and approximately 3 miles above the town of Burnsville. The project includes operation and maintenance (O&M) of Burnsville Lake. The lake is impounded by a rockfill embankment with impervious core dam with a gated spillway. The crest length of the dam is 1,400 feet. The dam was completed in January 1976.

FISCAL YEAR 2016 ALLOCATION: \$2,433,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities and to upgrade the exterior lighting.

FISCAL YEAR 2017 ALLOCATION: \$2,768,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and to replace outdated and deteriorated exterior lighting at the dam, shop and office with LED lighting.

BUDGETED AMOUNT FOR FY 2018: M: \$588,000 O: \$1,907,000 T: \$2,495,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,278,000 – Funds will provide for routine O&M for flood risk management. Routine activities include a periodic assessment, steel inspections, bridge inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$1,038,000 – Funds will provide for routine O&M of recreation facilities.

H: N/A

EN: \$179,000 – Funds will provide for routine O&M for environmental stewardship to provide management of a historic area, as well as other natural and cultural resources. Also, maintain Bulltown historic area (\$127,000).

WS: N/A

OTHER INFORMATION: The project has prevented over \$168,053,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 866,000 and average annual visitation from 2008 to 2012 exceeded 752,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$x.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Lynn Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: East Lynn Lake is located on the East Fork of Twelvepole Creek, 10 miles above the mouth of East Fork and 42 miles above the mouth of Twelvepole Creek. The project includes operation and maintenance (O&M) of East Lynn Lake. The lake is impounded by a rolled earth-fill dam with an uncontrolled saddle spillway. The top length of the dam is 652 feet. The dam was completed in April 1971.

FISCAL YEAR 2016 ALLOCATION: \$2,472,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, complete the Level One Inventory, and initiate a Level Two Inventory.

FISCAL YEAR 2017 ALLOCATION: \$2,564,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities, Level One inventory and replacing a Sewage Treatment System.

BUDGETED AMOUNT FOR FY 2018: M: \$889,000 O: \$1,458,000 T: \$2,347,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,529,000 – Funds will provide for routine O&M for flood risk management. Routine activities include bridge inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$740,000 – Funds will provide for routine O&M of recreation facilities.

H: N/A

EN: \$78,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. The project will also complete the Level Two Inventory and conduct boundary surveys.

WS: N/A

OTHER INFORMATION: The project has prevented over \$108,277,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 429,000 and average annual visitation from 2008 to 2012 exceeded 434,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$23,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elkins, WV

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The project is located on the Tygart River at Elkins, Randolph County, West Virginia. Elkins is a local flood protection project.

FISCAL YEAR 2016 ALLOCATION: \$54,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$46,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$15,000 T: \$15,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$15,000 – Funding provides for routine inspections for the dam.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Elkins is estimated to have prevented more than \$23,936,000 in damages since its completion in 1949.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$46,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kanawha River Locks and Dams, WV

AUTHORIZATION: River and Harbor Acts of 1930 (P.L. 71-520) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: The Kanawha River Locks and Dams project is a moderate-use waterway located in West Virginia. It begins at the mouth of the Kanawha River at its confluence with the Ohio River and stretches 90.6 miles upstream. Located along this stretch of waterway are the London, Marmet, and Winfield Locks and Dams.

FISCAL YEAR 2016 ALLOCATION: \$8,176,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities, including dredging to maintain the navigation channel, and repatriating cultural resources at Marmet L&D.

FISCAL YEAR 2017 ALLOCATION: \$8,927,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities, including dredging to maintain the navigation channel, Level One Inventory, and repatriating cultural resources at Marmet L&D.

BUDGETED AMOUNT FOR FY 2018: M: \$8,122,000 O: \$5,127,000 T: \$13,249,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$13,096,000 – Funds will provide for routine O&M for navigation and dredging to maintain the navigation channel. Routine activities include periodic inspections, steel inspections, bridge inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, maintaining service contracts, and real estate out-grant management. Also included is Repair Fleet package for Winfield Dam Gate Rim Gears and Seals. Additional funds are provided for plans and specifications to replace the Winfield Locks and Dam roller gates (\$500,000).

FRM: N/A

RC: \$133,000 – Funds will provide for routine O&M Recreational fields.

H: N/A

EN: \$20,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The 5-year average tonnage of commodities transported on the Kanawha River Locks and Dams exceeds 17,000,000 tons. Project visitation for FY 2012 exceeded 290,000 and average annual visitation from 2008 to 2012 exceeded 365,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$109,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River District: Huntington Kanawha River Locks and Dams, WV

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Locks and Dams, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Locks and Dams is located in West Virginia, Kentucky and Ohio and begins 127 miles downstream from Pittsburgh at mile 127 and continues to mile 438 on the Ohio River. The project includes Willow Island, Belleville, Racine, Robert C. Byrd, Greenup, and Captain Anthony Meldahl Locks and Dams (L&D), which are the six locks within the Huntington District located on the Ohio River.

FISCAL YEAR 2016 ALLOCATION: \$35,447,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine O&M activities and non-routine activities.

FISCAL YEAR 2017 ALLOCATION: \$36,781,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine O&M activities and non-routine activities. Additional funds are provided to install miter gates at Meldahl (\$2,500,000), replace navigation warning signs at Greenup (\$218,000), and gearbox replacement phase 2 at Greenup Lock and Dam (\$2,196,000).

ALLOCATION AMOUNT FOR FY 2018: M: \$14,844,000 O: \$11,991,000 T: \$26,835,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$26,400,000 – Funds will be used for routine and non-routine O&M. Routine activities include: bridge inspections and steel inspections; water control management; required safety-related analyses; data collection; monitoring instrumentation; maintaining service contracts; real estate out-grant management; and continuation of the Inland Waterways Transportation Economics effort to ensure that resources are applied to the most critical projects throughout the Ohio River basin. Non-routine activities include repair upper miter gate operating machinery at Bellville Locks and Dam and main chamber miter gate repairs at R.C. Byrd Locks and Dam. Additional funds are provided to repair the RC Byrd harbor (\$500,000).

FRM: N/A

RC: \$320,000 – Funds will be used for routine O&M of recreation facilities.

H: N/A

EN: \$115,000 – Funds will be used for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The average annual tonnage of commodities transported on this waterway over the past five years exceeds 87,000,000 tons. Project visitation for FY 2012 exceeded 846,000 and average annual visitation from 2008 to 2012 exceeded 919,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$1,140,000. There was an additional \$976,000 of unobligated funds that are committed within the Corps for

Division: Great Lakes and Ohio River

District: Huntington

Ohio River Locks and Dams,
WV, KY, & OH

scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Huntington

Ohio River Locks and Dams,
WV, KY, & OH

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ohio River Open Channel Work, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Open Channel Work, WV, KY and OH begins downstream from Pittsburgh at mile 127 and continues to mile 438 on the Ohio River. The project requires annual dredging to maintain its authorized depth of nine feet.

FISCAL YEAR 2016 ALLOCATION: \$2,622,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) dredging.

FISCAL YEAR 2017 ALLOCATION: \$2,822,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$2,724,000 O: \$0 T: \$2,724,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$2,724,000 – Funds will provide for routine O&M for navigation. Approximately 60-percent of the funding is used to dredge the main approach channels to L&D projects.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The annual average tonnage of commodities transported on this waterway for the past five years exceeds 87 million tons.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$303,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

Division: Great Lakes and Ohio River

District: Huntington

Ohio River Open Channel Work, WV
KY & OH

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: R. D. Bailey Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: R. D. Bailey Lake is located about a mile northeast of the community of Justice in Mingo and Wyoming Counties in West Virginia. The lake lies 112 miles above the mouth of the Guyandotte River. The rock-fill dam has a concrete face at a maximum height of 310 feet, and a top length of 1,397 feet. The dam was completed in 1980.

FISCAL YEAR 2016 ALLOCATION: \$2,243,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$2,183,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities.

BUDGETED AMOUNT FOR FY 2018: M: \$886,000 O: \$1,750,000 T: \$2,636,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,750,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate outgrant management.

RC: \$794,000 – Funds will provide for routine O&M for recreation facilities.

H: N/A

EN: \$92,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The project has prevented over \$398,231,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 482,000 and average annual visitation from 2008 to 2012 exceeded 398,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$220,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stonewall Jackson Lake, WV

AUTHORIZATION: Flood Control Act of 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: Stonewall Jackson Dam is located in Lewis County at Brownsville, WV. It lies on the West Fork River 73.9 miles above its junction with the Tygart River at Fairmont, where the two rivers form the Monongahela River. Stonewall Jackson Lake is a multi-purpose reservoir.

FISCAL YEAR 2016 ALLOCATION: \$1,162,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operation and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,405,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operation and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$183,000 O: \$1,082,000 T: \$1,265,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,139,000 – Funding will provide for routine Operation and Maintenance for the dam.

RC: \$64,000 – Funding will provide for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$54,000 – Funding will provide for routine Operation and Maintenance for Environmental Stewardship.

WS: \$8,000 - Funds will provide for management of the water supply contract and related issues.

OTHER INFORMATION: Stonewall Jackson Lake is estimated to have prevented \$271,273,000 in flood damages since its completion in 1990. Benefits include flood protection, low flow augmentation for water quality, water supply, fish and wildlife enhancement, and recreation. The average of annual recreational visits from 2009 through 2013 was 56,241.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$9,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Summersville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Summersville Lake is located in Nicholas County, WV on the Gauley River, a tributary of the Kanawha River. It is 34.5 miles above the mouth of the Gauley River and 131.5 miles above the mouth of the Kanawha River. It is a rock-fill dam with a central impervious core, and has a maximum height of 390 feet and top length of 2,280 feet. The dam was completed in 1966.

FISCAL YEAR 2016 ALLOCATION: \$2,210,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$2,653,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and to update the Master Plan for the Project.

BUDGETED AMOUNT FOR FY 2018: M: \$342,000 O: \$2,111,000 T: \$2,453,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,309,000 – Funds will provide for routine O&M for flood risk management. Routine activities include a periodic assessment, steel inspections, water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$936,000 – Funds will provide for routine O&M of recreation facilities.

H: N/A

EN: \$175,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources. In addition, the project will update their Master Plan (\$125,000).

WS: \$33,000 – Funds will provide for routine O&M for water supply to provide an estimated 4 million gallons per day of water to 12,000 citizens in Summersville, WV.

OTHER INFORMATION: The project has prevented over \$771,096,000 in damages over the course of its operation. Project visitation for FY 2012 exceeded 996,000 and average annual visitation from 2008 to 2012 exceeded 910,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$452,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sutton Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Sutton Lake is located in Braxton County, WV on the Elk River, a tributary of the Kanawha River. It is 100.4 miles above the mouth of the Elk River and 158.9 miles above the mouth of the Kanawha River. The lake is impounded by a concrete gravity dam with a maximum height of 210 feet and a top length of 1,178 feet. The dam was completed in 1961.

FISCAL YEAR 2016 ALLOCATION: \$2,388,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance (O&M) activities.

FISCAL YEAR 2017 ALLOCATION: \$2,595,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine O&M activities and installing new water lines to the maintenance building and office to reduce leaks and ensure project office remains operational. Also, repair damages from 2016 flooding event (\$70,000)

BUDGETED AMOUNT FOR FY 2018: M: \$406,000 O: \$2,034,000 T: \$2,440,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,354,000 – Funds will provide for routine O&M for flood risk management. Routine activities include water control management, required safety-related analyses, data collection, monitoring instrumentation, controlling reservoir releases, maintaining service contracts, and real estate out-grant management.

RC: \$1,041,000 – Funds will provide for routine O&M of recreation facilities.

H: N/A

EN: \$45,000 – Funds will provide for routine O&M for environmental stewardship to provide management of natural and cultural resources.

WS: N/A

OTHER INFORMATION: The project has prevented over \$471,371,000 in flood damages over the course of its operation. Project visitation for FY 2012 exceeded 451,000 and average annual visitation from 2008 to 2012 exceeded 475,000.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$24,000. There was an additional \$2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tygart Lake, WV

AUTHORIZATION: Rivers and Harbors Act of 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Tygart Dam is in Taylor County 2 miles south of Grafton, WV and 78 miles south of Pittsburgh. The dam is located on the Tygart River about 23.1 miles above the mouth of the river at Fairmont, WV. Tygart Lake is a multi-purpose reservoir located in Taylor and Barbour Counties.

FISCAL YEAR 2016 ALLOCATION: \$2,523,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds will be used for routine operations and maintenance (O&M) of the project.

FISCAL YEAR 2017 ALLOCATION: \$1,453,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds will be used for routine operations and maintenance (O&M) of the project.

BUDGETED AMOUNT FOR FY 2018: M: \$1,574,000 O: \$1,709,000 T: \$3,283,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$2,895,000 – Funding provides for routine Operations and Maintenance for the dam and replacement of the trash racks and boom (\$440,000).

RC: \$66,000 – Funding provides for routine Operation and Maintenance for Recreation.

H: N/A

EN: \$314,000 – Funding provides for routine Operations and Maintenance for Environmental Stewardship.

WS: \$8,000 - Funds will provide for management of the water supply contract and related issues.

OTHER INFORMATION: Tygart Lake is estimated to have prevented more than \$1,204,058,000 in flood damages since its construction in 1938. The average of annual recreational visits from 2009 through 2013 was 476,243.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$111,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

WISCONSIN

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Eau Galle River Lake, WI

AUTHORIZATION: Flood Control Acts of 1944 and 1958; Fish and Wildlife Coordination Act of 1958; Rivers and Harbors Act of 1958; Water Supply Act of 1958

LOCATION AND DESCRIPTION: Eau Galle Lake is located on the Eau Galle River, immediately upstream of Spring Valley, WI and 30 miles above its mouth at Chippewa River and its tributary, Mines Creek. Spring Valley is about 45 miles east of St. Paul, MN, and 36 miles west of Eau Claire, WI. The Eau Galle project with its large rolled-earth dam controls the 64-square mile drainage basin of the Eau Galle River.

FISCAL YEAR 2016 ALLOCATION: \$800,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funds were used for routine operation and maintenance activities.

FISCAL YEAR 2017 ALLOCATION: \$804,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funds are being used for routine operation and maintenance activities. Non-routine activities include habitat restoration and control of invasive species.

BUDGETED AMOUNT FOR FY 2018: M: \$1,099,000 O: \$1,100,000 T: \$2,199,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,606,000 – Funds will be used for routine operation and maintenance activities to meet requirements for flood risk management.

RC: \$305,000 – Funds will be used for routine operation and maintenance activities for recreation.

H: N/A

ES: \$288,000 – Funds will be used for routine operation and maintenance activities to meet requirements for environmental stewardship. Non-routine work item includes a master plan update to reflect current conditions and management needs.

WS: N/A

OTHER INFORMATION: Damages prevented for the storage in Eau Galle Lake and operations of the water control structure are estimated at approximately \$11.5 million since construction.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$20,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fox River, WI

AUTHORIZATION: Act of 7 Jul 1870, as amended by the Act of 3 Mar 1875; the Rivers and Harbors Acts of 1886, 1890, 1896, 1902 (PL 57-154), 1907 (PL 59-168), 1925 (PL 68-585), and 1958 (PL 85-500); and the Water Resources Development Acts of 1986 (PL 99-662) and 1992 (PL 102-580).

LOCATION AND DESCRIPTION: The project is located on the Lower Fox River from Lake Winnebago to Green Bay, Wisconsin. The project includes nine dams consisting of concrete gravity spillways and tainter gate structures operated by lift machinery. The project is primarily operated for flood control purposes.

FISCAL YEAR 2016 ALLOCATION: \$2,464,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) including collection of water level data, operation of dams to regulate flows to support project uses (e.g., flood risk management, private hydropower, paper mills and municipal uses), dam safety data collection and inspections, and compliance with State and Federal historic preservation requirements. Funding for non-routine activities will be used to award a contract for security improvements in order to be in compliance with USACE Critical Infrastructure and Resilience Program requirements.

FISCAL YEAR 2017 ALLOCATION: \$2,378,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine O&M including collection of water level data, operation of dams to regulate flows to support project uses (e.g., flood risk management, private hydropower, paper mills and municipal uses), dam safety data collection and inspections, and compliance with State and Federal historic preservation requirements. Funding for non-routine activities will be used to award a contract to complete efforts associated with compliance with USACE Critical Infrastructure and Resilience Program requirements.

BUDGETED AMOUNT FOR FY 2018: M: \$3,716,000 O: \$2,042,000 T: \$5,758,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$5,726,000 – Funding provides for routine O&M including collection of water level data and operation of the dams to regulate pools for multiple uses (flood risk management, and supply of water to private hydropower, paper mills and municipal uses), completion of dam safety inspections, compliance with current safety and security regulations, fabrication of new gate seals (\$225,000), and repair of dam gates, trunnion pins and pier concrete at Kaukauna Dam (\$2,700,000).

RC: N/A

H: N/A

EN: \$32,000 – Funding provides routine O&M associated with compliance with State and Federal historic preservation requirements.

WS: N/A

OTHER INFORMATION: Without continued dam operation, the risk of flooding increases, the State
Division: Great Lakes and Ohio River District: Detroit Fox River, WI

owned locks cannot operate and power plants/paper mills would lose pool and not be able to function. There are a total of 24 paper and pulp plants located along the Fox River that draw water from the river for use in processing and power production.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$41,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Green Bay Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1866, as amended by the Rivers and Harbors Acts of 1892, 1910 (PL 61-264), 1917 (PL 65-37), 1925 (PL 68-585), 1935 (PL 74-409), 1937 (PL 75-392), 1945 (PL 79-14), and 1962 (PL 87-874); and the Water Resources Development Act of 1986 (PL 99-662)

LOCATION AND DESCRIPTION: Green Bay Harbor is located at the mouth of the Fox River at the head of Green Bay in Lake Michigan. Green Bay Harbor is a moderate-use, deep-draft commercial harbor that ships and receives over 2.3 million tons annual and has over 14 miles of maintained channel. Maintenance dredging is required on an annual basis and dredged material is placed in one of two facilities, depending on the attributes of the material being dredged. The two facilities are the Bay Port disposal facility, under an agreement with the Brown County Port Authority, or the Cat Island disposal facility.

FISCAL YEAR 2016 ALLOCATION: \$4,456,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation within Green Bay Harbor. Work included project condition surveys and maintenance dredging.

FISCAL YEAR 2017 ALLOCATION: \$3,895,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation within Green Bay Harbor. Work will include project condition surveys and maintenance dredging.

BUDGETED AMOUNT FOR FY 2018: M: \$3,500,000 O: \$411,000 T: \$3,911,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$3,911,000 – Funding provides for routine O&M for navigation, including project condition surveys and maintenance dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Green Bay Harbor ships and receives over 1.9 million tons annually, and a loss of two feet of channel depth due to annual shoaling, channel blockages or deteriorated wave climate can result in increased transportation costs up to \$1.4 million annually.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$94,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kewaunee Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1881, as amended by the Rivers and Harbors Acts of 1910 (PL 61-264), 1935 (PL 74-409), and 1960 (PL 86-645).

LOCATION AND DESCRIPTION: Kewaunee Harbor is a low-use, deep-draft commercial harbor located in Wisconsin on the western shore of Lake Michigan at the mouth of the Kewaunee River. It is about 100 miles north of Milwaukee, WI and 27 miles south of Sturgeon Bay. The project provides for commercial navigation with 5,500 feet of maintained channels and includes 6,500 feet of navigation structures, including breakwaters and piers.

FISCAL YEAR 2016 ALLOCATION: \$15,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2015 funding was used for routine operations and maintenance (O&M) for navigation. Funding provided for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

FISCAL YEAR 2017 ALLOCATION: \$11,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operations and maintenance (O&M) for navigation. Funding will provide for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

BUDGETED AMOUNT FOR FY 2018: M: \$0 O: \$12,000 T: \$12,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: \$12,000 – Funding provides for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

OTHER INFORMATION: N/A

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$0. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Milwaukee Harbor, WI

AUTHORIZATION: Act of 3 Mar 1843, as amended by the Rivers and Harbors Acts of 1852, 1866, 1881, 1886, 1896, 1907 (PL 59-168), 1922 (PL 67-362), 1935 (PL 74-409), 1945 (PL 79-14), 1960 (PL 86-645), and 1962 (PL 87-874); and the Water Resources Development Acts of 1974 (PL 93-251) and 1986 (PL 99-662).

LOCATION AND DESCRIPTION: Milwaukee Harbor is a moderate-use, deep-draft commercial harbor located in Wisconsin on the west shore of Lake Michigan, approximately 85 miles north of Chicago. The project includes both lake-approach channels and river channels with depths varying from 27 to 30 feet. Maintenance dredging is required on a three to four-year cycle. Dredged material is placed in the Milwaukee Dredged Material Disposal Facility. The project also includes over 21,000 feet of structures, including breakwaters, piers and revetments.

FISCAL YEAR 2016 ALLOCATION: \$1,584,000

DESCRIPTIONS OF WORK FOR FY 2016: FY 2016 funding was used for routine operation and maintenance (O&M) for navigation within Milwaukee Harbor. Work included maintenance of portions of the north breakwater by Government plant to protect the navigation channel and initiation of design for permanent repairs to the north breakwater.

FISCAL YEAR 2017 ALLOCATION: \$3,550,000

DESCRIPTIONS OF WORK FOR FY 2017: FY 2017 funding will be used for routine operation and maintenance (O&M) for navigation within the Milwaukee Harbor. Work will include maintenance of portions of the north breakwater to protect the navigation channel. Additional funds are provided for repairs to the stone dock wall (\$2,300,000).

BUDGETED AMOUNT FOR FY 2018: M: \$1,280,000 O : \$0 T: \$1,280,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: \$1,280,000 – Funding provides for routine operation and maintenance for navigation, including repairs of the most critical portions of the north breakwater by Government plant to protect the navigation channel. Repairs to the north breakwater will reduce the risk of full structure breach which would block navigation and create unsafe navigation conditions and/or vessel delays.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Bulk commodities that pass through Milwaukee Harbor generate approximately \$146,000,000 annually in direct revenue while supporting 1,416 jobs. Commercial commodities shipped from the harbor include petroleum and petroleum products and manufactured equipment.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$72,000.
Division: Great Lakes and Ohio River District: Detroit Milwaukee Harbor, WI

There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.

WYOMING

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jackson Hole Levees, WY

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Project is located in Western Wyoming on the Snake River near Jackson Hole Wyoming. The project includes 30.5 miles of levees located on both sides of the Snake River and 2.5 miles on the Gros Ventre River. The levees provide flood control protection.

FISCAL YEAR 2016 ALLOCATION: \$1,843,000

DESCRIPTIONS OF WORK FOR FY 2016: Funding used to meet the operations and maintenance requirements of the Flood Risk Management mission. Activities included performing routine annual maintenance and levee patrol, annual inspection of project levees with local sponsor, and environmental compliance for all project activities. Other activities included the annual cleaning and inspection of project culverts, purchase of riprap and fill materials to support flood fight and maintenance work, levee rehabilitation and vegetation removal on 5 miles of project levees, and drafting of a report to obtain a vegetation variance from the Corps standard.

FISCAL YEAR 2017 ALLOCATION: \$1,617,000

DESCRIPTIONS OF WORK FOR FY 2017 Funding is being used to meet the operations and maintenance requirements of the Flood Risk Management mission. Activities include performing routine annual maintenance and levee patrol, annual inspection with local sponsor, and environmental compliance activities.

BUDGETED AMOUNT FOR FY 2018: M: \$1,460,000 O: \$354,000 T: \$1,814,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2018:

N: N/A

FRM: \$1,814,000 – Funding will provide for operations and maintenance requirements of the Flood Risk Management mission. Non-routine funding of \$195,000 provides for the installation of Rock Barbs on the John Dodge Levee to reduce river velocities and impingement to the levee.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Project consists of levees constructed by non-federal sponsors prior to November 17, 1986 near Jackson, Wyoming between River Mile 963 on the Snake River near Moose, Wyoming and River Mile 939 on the Snake River at the Highway 26 bridge and from the mouth of the Gros Ventre River upstream to the Grand Teton National Park Boundary.

1/ Estimated Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2016 to FY 2017 was \$222,000. There was an additional \$0 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2017. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2018 from prior appropriations for use on this effort is \$0.