



**DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922**

RECORD OF DECISION

ACTION ID: SPK-2004-00116

APPLICANT: Cordova Hills, LLC.

PROJECT NAME: Cordova Hills

I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning the permit application for the proposed action, as well as the stated views of interested agencies and the public. In doing so, I have considered the possible consequences of the proposed action in accordance with regulations published in 33 Code of Federal Regulations (CFR) Parts 320 through 332 and 40 CFR Part 230.

As described in the Draft and Final Environmental Impact Statement (EIS), the proposed action is to construct a mixed-use development on an approximately 2,699 acre property in eastern Sacramento County. The proposed action would include residential and commercial uses, as well as the construction of a private university. The proposed action, as modified since issuance of the Draft and Final EIS, involves the discharge of dredged or fill material into 31.72 acres of waters of the United States for the construction of a mixed-use development, the discharge of dredged or fill material into 0.25 acres of waters of the U.S. for the construction of off-site infrastructure, and the discharge of fill material into 13.73 acres of waters of the U.S. for re-establishment and rehabilitation of a vernal pool on the Chester Drive property for compensatory mitigation. The proposed discharges of dredged or fill material into waters of the U.S. are subject to Section 404 of the Clean Water Act. As such a Department of the Army permit under the Regulatory Program is required for the proposed action.

I. Background

An application for a Department of the Army (DA) permit under Section 404 of the Clean Water Act for the original proposed action was received on April 29, 2008. On June 10, 2008, the U.S. Army Corps of Engineers, Sacramento District (Corps) determined the permit application was incomplete, and requested additional information.

The Corps determined an EIS would be prepared on June 18, 2008. A revised complete DA permit application was received on March 16, 2011. Scoping for the EIS began on September 1, 2011, with publication of a Notice of Intent to Prepare

an EIS in the Federal Register (76 FR 54452). The Corps issued a public notice for scoping on September 1, 2011. A public scoping meeting was held on September 13, 2011, at the Rancho Cordova City Hall. The U.S. Environmental Protection Agency (USEPA), County of Sacramento, and Sacramento Metropolitan Air Quality Management District agreed to be a cooperating agency.

In November 2014, a Draft Environmental Impact Statement (EIS) was issued by the Corps. A Notice of Availability was published in the Federal Register on November 28, 2014 (79 FR 70865). A public notice for the Draft EIS and the permit application was issued on November 28, 2014. A public meeting was held on December 17, 2014, at Rancho Cordova City Hall. During the Draft EIS public review period, 12 comment letters/emails were received.

The Corps issued a Final EIS in March 2016. A Notice of Availability was published in the Federal Register on March 4, 2016 (81 FR 11557). A public notice announcing the Final EIS was issued March 4, 2016.

The proposed action in the Draft EIS would result in the discharge of dredged or fill material into 39.79 acres of waters of the U.S. on-site and 0.36 acre of waters of the U.S. associated with the construction of off-site road improvements. As a result of comments from the Corps and USEPA, the applicant revised the proposed action identified in the Draft EIS and the revised action was identified in the Final EIS as the "Modified Proposed Action". The Modified Proposed Action would result in the discharge of dredged or fill material or fill material into 34.24 acres of waters of the U.S. on-site, and 0.36 acre of waters of the U.S. associate with the construction of off-site road improvements. Since publication of the Final EIS, the applicant has further revised the proposed action. The Current Modified Proposed Action would result in the discharge of dredged or fill material into 31.72 acres of waters of the U.S. on-site, 0.25 acres of waters of the U.S. for the construction of off-site infrastructure, and the discharge of dredged or fill material into 13.73 acres of waters of the U.S. for the re-establishment and rehabilitation of a vernal pool on the Chester Drive property as proposed for compensatory mitigation. Because the Current Modified Proposed Action would result in the loss of fewer acres of waters of the U.S. than identified in the EIS, and because the proposed discharge of dredged or fill material into waters of the U.S. associated with the Chester Drive property would result in a net increase in aquatic resource functions and services, and would not result in an increase in adverse effects not considered in the EIS, we have determined that a supplemental EIS is not necessary.

II. Project Purpose and Need

a. Purpose: To construct a large-scale, master-planned, mixed-use development, with associated infrastructure, within the Urban Services Boundary in southeastern Sacramento County.

b. Need: Sacramento County has been undergoing continuous growth, and increased housing needs have been identified within eastern Sacramento County. The commercial uses are anticipated to meet a local and regional need for retail and office space. While the need for college-educated individuals is increasing within the region, the number of persons with higher education degrees is lagging behind, supporting a need for colleges and universities in the Sacramento region.

III. Alternatives Considered: A reasonable range of alternatives were considered in the Draft EIS for the proposed project. The Draft EIS also identified those alternatives that were considered but rejected from further analysis, consisting of the Original Project Application Alternative and one off-site alternative. Since the original permit application, the applicant has modified the Proposed Action on several occasions to further reduce direct and indirect effects to waters of the U.S., and increase the acreage of preserved waters of the U.S. The Current Modified Proposed Action is identified as the Applicant Apparent LEDPA Alternative in the Section 404(b)(1) Alternatives information provided by the applicant. The 404(b)(1) Alternatives Analysis in this Record of Decision (ROD) will analyze the practicability of the alternatives identified in the Draft and Final EIS, consisting of the Proposed Action, Expanded Drainage Preservation Alternative, Expanded Preservation Alternative, Pilatus Alternative, Regional Conservation Alternative, and Modified Proposed Action, as well as additional alternatives identified by the Corps, which were not identified in the Draft or Final EIS, consisting of the Reduced Town Center Alternative, Additional Avoidance Alternative, and Applicant Apparent LEDPA Alternative (Current Modified Proposed Action). We have determined that the alternatives that were not analyzed in the Draft or Final EIS fall within the spectrum of alternatives that were analyzed because the new alternatives all represent a reduction in the direct and indirect effects associated with the proposed discharges to waters of the U.S. These additional alternatives, therefore, do not represent "substantial changes in the proposed action that are relevant to environmental concerns" nor do they represent "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" (40 CFR § 1502.9(c)(1)). Furthermore, the information developed as a result of the additional alternatives does not indicate that the proposed action will affect the quality of the human environment in a significant manner or to a significant extent not already considered, thus the new alternatives do not warrant preparation of a supplemental EIS.

In June 2016, the applicant submitted the *Revised Section 404(b)(1) Alternatives Information, Cordova Hills, Sacramento County, California*, which contains information regarding the practicability of alternatives in light of the overall project purpose. This alternatives information is being utilized in this ROD to conduct the alternatives analysis required for compliance with the USEPA's Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) (404(b)(1) Guidelines).

a. Alternatives Evaluated in the Draft and Final EIS

(1) Alternative 1 (No Action, no permit issued): As described in the Draft EIS, due to the location and configuration of waters of the U.S. on the Cordova Hills site, the No Action alternative would result in no development occurring. Under this alternative, the Cordova Hills site would remain as grazing land.

(2) Alternative 2 (Draft EIS Proposed Action): The Proposed Action as identified in the Draft EIS would result in the discharge of dredged or fill material into 39.79 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. This alternative would result in the development of approximately 8,000 residential units on 1,101 acres, 239 acres of commercial uses, including a 204 acre town center, 224 acres of a private university, 146 acres of agricultural uses, 107.8 acres of public/quasi public uses (e.g. schools, parks), 251 acres of recreation, and 541 acres of avoided areas. Under this alternative, an approximately 541 acre preserve containing 49.31 acres of preserved waters of the U.S. would be created. Overall, construction of this alternative would result in development on approximately 1,370 acres. Development of this alternative would cost approximately \$725,382,000, approximately \$540,000 per developable acre.

(3) Alternative 3 (Expanded Drainage Preservation Alternative): This alternative would avoid the same waters of the U.S. as would be avoided under Alternative 2, as well as many of the perennial, intermittent, and ephemeral drainages proposed to be filled under Alternative 2. This alternative would result in the discharge of dredged or fill material into 18.19 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. This alternative would result in the development of approximately 5,425 residential units on 684 acres, 158.6 acres of commercial uses, including a 120 acre town center, 224 acres of a private university, 77.8 acres of agricultural uses, 99.4 acres of public/quasi public uses, 295.4 acres of recreational uses, and 926.6 acres of avoided areas. Under this alternative, an elementary school, required by the Elk Grove Unified School District would not be constructed in the north-eastern portion of the site, due to regulations governing the location of school sites, including proximity to major roadways, noise, and location of high pressures lines (e.g. natural gas, gasoline, sewer, water). Under this alternative, an approximately 926.6 acre preserve containing 70.92 acres of preserved waters of the U.S. would be created. Overall, construction of this alternative would result in development on approximately 1,022 acres. Development of this alternative would cost approximately \$684,603,000, approximately \$670,000 per developable acre.

(4) Alternative 4 (Expanded Preservation Alternative): This alternative would avoid all waters of the U.S. avoided under Alternative 2, the north-western plateau, and as well as many of the wetlands and perennial, intermittent, and ephemeral drainages proposed to be filled under Alternative 2. This alternative would result in the discharge of dredged or fill material into 9.38 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road

improvements. This alternative would result in the development of approximately 4,155 residential units on 684 acres, a 135.7 acre town center, 224 acres of a private university, 55 acres of agricultural uses, 99.4 acres of public/quasi public uses, 264 acres of recreational uses, and 1,193 acres of avoided areas. Under this alternative, an approximately 1,193 acre preserve containing 79.73 acres of preserved waters of the U.S. would be created. Under this alternative, an elementary school, required by the Elk Grove Unified School District would not be constructed in the north-eastern portion of the site, due to regulations governing the location of school sites, including proximity to major roadways, noise, and location of high pressures lines (e.g. natural gas, gasoline, sewer, water). Overall, construction of this alternative would result in development on approximately 816 acres. Development of this alternative would cost approximately \$595,389,000, approximately \$729,000 per developable acre.

(5) Alternative 5 (Pilatus Alternative): Under this alternative, in addition to the Cordova Hills site, the Pilatus property, located adjacent to the north, would also be developed. This alternative would also result in the preservation of a greater area of the north-western plateau, and a greater area of the drainage corridor in the central portion of the Cordova Hills site, than proposed under Alternative 2. This alternative would result in the discharge of dredged or fill material into 33.17 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. This alternative would result in the development of approximately 8,770 residential units on 1,271 acres, 207.8 acres of commercial uses, including 155.6 acres of town center, 217 acres of a private university, 99.3 acres of agricultural uses, 115.4 acres of public/quasi public uses, 384.1 acres of recreational uses, and 957 acres of avoided areas. Under this alternative, an approximately 957 acre preserve containing 76.65 acres of preserved waters of the U.S. would be created. Overall, construction of this alternative would result in development on approximately 1,627 acres. Development of this alternative would cost approximately \$952,460,000, approximately \$586,000 per developable acre. Construction of this alternative would result in development within an area that is outside of the Sacramento County Urban Policy Area (UPA). The applicant originally proposed including the Pilatus Alternative Area as part of the Cordova Hills project when seeking permission to file an application for an expansion of the UPA to include the Cordova Hills property. At that time, Sacramento County refused to accept an application for an expansion of the UPA into the area encompassed by the Pilatus property, and the applicant was instructed to delete it from the project application.

(6) Alternative 6 (Regional Conservation Alternative): This alternative was designed to be consistent with the Proposed Reserve System identified in the October 28, 2013, Notice of Preparation published by Sacramento County for the proposed South Sacramento Habitat Conservation Plan. This alternative would result in the discharge of dredged or fill material into 38.41 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. This alternative would result in the development of approximately

7,740 residential units on 950 acres, 212.5 acres of commercial uses, including 177.9 acres of town center, 224 acres of a private university, 194 acres of agricultural uses, 107.8 acres of public/quasi public uses, 255.7 acres of recreational uses, and 505 acres of avoided areas. Under this alternative, an approximately 505 acre preserve containing 50.69 acres of preserved waters of the U.S. would be created. Under this alternative, an elementary school, required by the Elk Grove Unified School District would not be constructed in the north-eastern portion of the site, due to regulations governing the location of school sites, including proximity to major roadways, noise, and location of high pressures lines (e.g. natural gas, gasoline, sewer, water). Development of this alternative would cost approximately \$739,718,000, approximately \$540,000 per developable acre.

(7) Alternative 7 (Final EIS Modified Proposed Action): This alternative was identified as the Applicant's Preferred Alternative in the Final EIS, and would result in additional preservation of waters of the U.S. in the north-western plateau, as well as additional intermittent and ephemeral drainages located throughout the site. This alternative would result in the discharge of dredged or fill material into 34.26 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. This alternative would result in the development of approximately 7,945 residential units on 862.1 acres, 239 acres of commercial uses, including 204 acres of town center, 224 acres of a private university, 128.3 acres of agricultural uses, 107.8 acres of public/quasi public uses, 239.4 acres of recreational uses, and 578 acres of avoided areas. Under this alternative, an approximately 579 acre preserve containing 54.85 acres of preserved waters of the U.S. would be created. Overall, construction of this alternative would result in development on approximately 1,363 acres. Development of this alternative would cost approximately \$740,308,000, approximately \$543,000 per developable acre.

b. Alternatives Not Evaluated in the EIS

(1) Alternative 8 (Applicant Apparent LEDPA Alternative (Current Modified Proposed Action): Through the evaluation process, the applicant has modified the proposed action on several occasions, to further avoid and minimize effects to waters of the U.S. The Current Modified Proposed Action would result in the discharge of dredged or fill material into 31.72 acres of waters of the U.S. on-site and 0.25 acres of waters of the U.S. associated with off-site road improvements. In addition, the Current Modified Proposed Action would result in the discharge of dredged or fill material into 13.73 acres of waters of the U.S. associated with re-establishment and rehabilitation of a vernal pool on the Chester Drive property, which will result in a net increase in aquatic resource functions and services.

(2) Alternative 9 (Reduced Town Center Alternative): This alternative would result in the preservation of waters of the U.S. avoided in Alternative 6, as well as the waters of the U.S. preserved under Alternative 7. This alternative would result in the discharge of dredged or fill material into 30.42 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road

improvements. This alternative would result in the development of approximately 7,945 residential units on 862.1 acres, 239 acres of commercial uses, including 204 acres of town center, 224 acres of a private university, 128.3 acres of agricultural uses, 107.8 acres of public/quasi public uses, 239.4 acres of recreational uses, and 578 acres of avoided areas. Under this alternative, an approximately 579 acre preserve containing 54.85 acres of preserved waters of the U.S. would be created. Under this alternative, an elementary school, required by the Elk Grove Unified School District would not be constructed in the north-eastern portion of the site, due to regulations governing the location of school sites, including proximity to major roadways, noise, and location of high pressures lines (e.g. natural gas, gasoline, sewer, water). Development of this alternative would cost approximately \$722,199,000, approximately \$546,000 per developable acre.

(3) Alternative 10 (Additional Avoidance Alternative): This alternative would result in the discharge of dredged or fill material into 25.73 acres of waters of the U.S. on-site and 0.36 acres of waters of the U.S. associated with off-site road improvements. Under this alternative avoidance of waters of the U.S. would occur in 8 additional areas identified by the Corps, as compared to Alternative 2, which are identified as Area A-1a, A-1b, A-2, A-3, A-4, A-5, A-6, and A-7. Development of this alternative would cost approximately \$865,016,800, approximately \$582,000 per developable acre. Since identification of these areas by the Corps, the applicant has modified Alternative 2 to incorporate avoidance of area A-1b, a portion of area A-2, area A-3, a portion of Area A-5, a portion of area A-6, and a portion of area A-7 into both Alternative 7 and Alternative 8. Therefore, only the avoidance of Area A-1a, and the remaining portions of areas A-2, A-4, A-5, A-6, and A-7 will be evaluated.

(a) Area A-1a: Under this alternative, approximately 2.38 acres of vernal pools, seasonal wetlands, and seasonal wetland swales would be avoided adjacent to Grantline Road, consisting primarily of a 2.31 acre vernal pool. This vernal pool is directly adjacent to, and located within the right-of-way of Grantline Road, and is currently subject to indirect effects from the road. Avoidance of this feature would eliminate approximately 5.80 acres of developable area, and result in the avoidance of waters of the U.S. within an isolated preserve that would be subject to substantial indirect effects from the adjacent road and surrounding development.

(b) Area A-2: Under this alternative, 2.60 acres of vernal pools, seasonal wetlands, seasonal wetland swales, and intermittent drainages would be preserved. The applicant has modified Alternative 2 to incorporate additional avoidance of 2.13 acres of the waters of the U.S. in this area into Alternatives 7 and 8, consisting of all of the vernal pools, seasonal wetlands, and intermittent drainages, and the majority of the seasonal wetland swales. The avoidance of this area is located within the "bufferlands," an area in which Sacramento County does not allow residential development, due to the proximity to the Keifer Landfill. Land-uses within this area allowed by Sacramento County have uses including, but not limited to, as a sports park, solar facilities, and corporation yards, all of which are proposed in this south-western portion of the site. Avoidance of the remaining 0.46 acres of seasonal

wetland swales would eliminate 4.48 acres of land currently proposed for a 25 MW solar facility required to meet the 20% renewable energy requirement of Sacramento County for the development of the site. Due to the steep topography in the south-western portion of the site, development of a 25 MW solar facility while avoiding the additional 0.46 acres of seasonal wetland swales would require the substantial additional grading, in order to achieve slopes necessary for the construction of a solar facility would increase costs by approximately \$6,234,300.

(c) Area A-4: Avoidance of area A-4 would preserve 1.00 acres of vernal pools, seasonal wetlands, and seasonal wetland swales along the western boundary of the central drainage preserved proposed under Alternative 2 with a 25' buffer from all avoided waters of the U.S. Under this alternative, two proposed detention basins totaling 1.90 acres could not be constructed, and would be replaced by 5 separate, smaller detention basins. With the additional avoidance and the 5 separated detention basins, development of this alternative would result in the loss of 11.80 developable acres of land. Due to the steep topography to the west of this area and the meandering nature of the seasonal wetland swale located in area A-4, either retaining walls and/or rip-rap at the outside edge of this preserve or heavy modification of the natural grade of the seasonal wetland swale with in-swale grade control structures would be necessary, in order to protect proposed adjacent development from the erosion. Proposed residential and commercial developments to the west of this area would also reduce hydrology within this area, resulting in the loss of functions and services of these waters of the U.S., and potentially result in the conversion of these waters to uplands. Due to the potential for indirect effects and the loss of functions and services under this alternative, the applicant was requested to provide information on avoidance of this area with buffers sufficient to ensure long-term preservation of the features, with no loss of functions and services. In order to protect hydrology within the waters avoided under this alternative, and eliminate the need for in-stream grade control structure or rip-rap, 17.84 acres of land proposed for development would be required to preserve an additional 1.00 acres of waters of the U.S. within area A-4. While indirect effects to hydrology under this alternative would be minimized, indirect effects from adjacent development would occur.

(d) Area A-5: Avoidance of Area A-5 would preserve 0.76 acres of vernal pools, seasonal wetlands, seasonal wetland swales, and intermittent drainage adjacent to the eastern portion of the central preserve proposed under the proposed action. The applicant modified Alternative 2 to incorporate avoidance of an additional 0.24 acres of waters of the U.S. in this area into Alternatives 7 and 8. The additional waters of the U.S. that would be avoided consist of vernal pools, seasonal wetlands, and intermittent drainages. The remaining 0.52 acres of waters of the U.S. that would be preserved under this alternative, consisting primarily of a small, intermittent drainage, would eliminate approximately 17.91 acres of land currently proposed for development, due to steep slopes, the relocation of a detention basin, and fire breaks. Due to the steep topography to the north, south, and east of this area, as well as the meandering nature of the intermittent drainage that would be

preserve, either retaining walls and/or rip-rap at the outside edge of this preserve or heavy modification of the natural grade of the intermittent drainage with in-swale grade control structures would be necessary, in order to protect proposed adjacent development from the erosion. Proposed residential development to the east of area A-5 would also reduce hydrology within this area, as the watershed of these features would be reduced by 84% (from 115.1 acres to 17.9 acres) resulting in the loss of functions and services of these waters of the U.S., and potentially result in the conversion of the intermittent drainage to an ephemeral drainage, or to an upland swale. Due to the potential for indirect effects and the loss of functions and services under this alternative, the applicant was requested to provide information on avoidance of this area with buffers sufficient to ensure long-term preservation of the features, with no loss of functions and services. In order to protect hydrology within the waters avoided under this alternative, and eliminate the need for in-stream grade control structure or rip-rap, 115.1 acres of land proposed for development would be required to preserve an additional 0.52 acres of waters of the U.S. within area A-5. While indirect effects to hydrology under this alternative would be minimized, indirect effects from adjacent development would occur.

(e) Area A-6: Avoidance of Area A-6 would preserve 0.49 acres of vernal pools, seasonal wetlands, seasonal wetland swales, and intermittent drainages located in the south-eastern portion of the site, west of Carson Creek. The applicant has modified Alternative 2 to incorporate additional avoidance of avoid 0.19 acres of the waters of the U.S. into Alternatives 7 and 8 in this area, consisting of vernal pools, seasonal wetland swales, and intermittent drainages. The remaining 0.30 acres of waters of the U.S. that would be preserved within this area with a 25-foot buffer, consisting primarily of a small intermittent drainage, would eliminate approximately 29.6 acres of land currently proposed for development, due to steep slopes, the relocation of a detention basin, and fire breaks. Due to the steep topography to the north, east, and west of this area and the meandering nature of the intermittent drainage that would be preserved, either retaining walls and/or rip-rap at the outside edge of this preserve or heavy modification of the natural grade of the intermittent drainage with in-swale grade control structures would be necessary, in order to protect proposed adjacent development from the erosion. Proposed residential development to the north, east, and west of area A-6 would also reduce hydrology within this area, as the watershed of these features would be reduced by 85% (from 198.4 acres to 29.6 acres) resulting in the loss of functions and services of these waters of the U.S., and potentially result in the conversion of the intermittent drainage to an ephemeral drainage, or to an upland swale. Due to the potential for indirect effects and the loss of functions and services under this alternative, the applicant was requested to provide information on avoidance of this area with buffers sufficient to ensure long-term preservation of the features, with no loss of functions and services. In order to protect hydrology within the waters avoided under this alternative, and eliminate the need for in-stream grade control structure or rip-rap, 198.4 acres of land proposed for development would be required to preserve an additional 0.30 acres of waters of the U.S. within area A-6. While indirect effects

to hydrology under this alternative would be minimized, indirect effects from adjacent development would occur.

(f) Area A-7: Avoidance of Area A-7 would preserve 1.25 acres of seasonal wetlands and seasonal wetland swales located in the south-eastern portion of the site, south-east of the central drainage preserve. The applicant has modified Alternative 2 to incorporate additional avoidance of 0.09 acres of a seasonal wetland in this area into Alternatives 7 and 8. The remaining 1.16 acres of waters of the U.S. that would be preserved within this area with a 25-foot buffer, consisting primarily of a small intermittent drainage, would eliminate approximately 28.6 acres of land currently proposed for development, due to steep slopes, the relocation of a detention basin, and fire breaks. Due to the steep topography to the north, east, and west of this area and the meandering nature of the intermittent drainage that would be preserved, either retaining walls and/or rip-rap at the outside edge of this preserve or heavy modification of the natural grade of the intermittent drainage with in-swale grade control structures would be necessary, in order to protect proposed adjacent development from the erosion. Proposed residential development to the north, east, and west of area A-6 would also reduce hydrology within this area, as the watershed of these features would be reduced by 67% (from 85.6 acres to 28.6 acres) resulting in the loss of functions and services of these waters of the U.S., and potentially result in the conversion of the intermittent drainage to an ephemeral drainage, or to an upland swale. Due to the potential for indirect effects to hydrology and the loss of functions and services under this alternative, the applicant was requested to provide information on avoidance of this area with buffers sufficient to ensure long-term preservation of the features, with no loss of functions and services. In order to protect hydrology within the waters avoided under this alternative, and eliminate the need for in-stream grade control structure or rip-rap, 85.6 acres of land proposed for development would be required to preserve an additional 1.16 acres of waters of the U.S. within area A-6. While indirect effects to hydrology under this alternative would be minimized, indirect effects from adjacent development would occur.

d. Determination of Practicable Alternatives and the Least Environmentally Damaging Practicable Alternative (LEDPA):

(1) We have determined that Alternative 1, the No Action Alternative, would not meet the overall project purpose, as no development would occur. Therefore, we have determined that Alternative 1 is not practicable.

(2) We have determined that Alternative 2 meets the overall project purpose, and is available and practicable. However, this alternative would result in substantially greater loss of waters of the U.S., including high quality vernal pools, than Alternative 8, and therefore this alternative is not the LEDPA.

(3) We have determined that because the required elementary school could not be constructed under Alternatives 3, 4, 6 and 9, that these alternatives are not

practicable due to logistics. In addition, Alternative 6 would have greater impacts to waters of the U.S. than Alternative 8.

(4) We have determined that because Alternative 5 would result in greater impacts to waters of the U.S. than Alternative 8 and would result in development within a larger area, thus increasing direct and indirect effects to other resources, that this alternative is not the LEDPA.

(5) We have determined that although Alternative 7 meets the overall project purpose, and is available and practicable, this alternative would result in substantially greater loss of waters of the U.S., including high quality vernal pools, than Alternative 8, and therefore this alternative is not the LEDPA.

(6) We have determined that additional avoidance of Areas A-1, A-2, A-4, A-5, A-6, and A-7 in Alternative 10 are not practicable as follows:

(a) Although avoidance of Area A-1a would eliminate the placement of fill material into 2.38 acres of waters of the U.S., the waters of the U.S. that would be avoided would be surrounded by commercial development, and within the right-of-way of Grantline Road, proposed for future expansion. Development surrounding this preserve would indirectly adversely affect the avoided waters of the U.S., resulting in similar adverse effects to the functions and services as the placement of fill material. Therefore, we have determined that Alternative 10 is not the LEDPA.

(b) We have determined that the loss of 4.48 acres of land currently proposed for a solar facility and additional construction costs of \$6,234,300 is not practicable for the minimal additional avoidance of 0.46 acres of seasonal wetland swales for Area A-2, given the additional loss of developable area and waters of the U.S. that would occur under the Current Modified Proposed Action. Therefore, we have determined that Alternative 10 is not the LEDPA.

(c) We have determined that because the avoidance of waters of the U.S. in Area A-4 with a 25-foot buffer would cause indirect adverse effects to the functions and services of the waters of the U.S. that are similar to the direct effects caused by the placement of fill material, Alternative 10 is not the LEDPA. In addition, we have determined that the additional preservation of 17.84 acres of land associated with preserving the entire watershed of these waters of the U.S. to avoid indirect effects to hydrology is not reasonable for the additional avoidance of 1.00 acres of waters of the U.S. that would be further indirectly adversely affected by adjacent development, given the additional loss of developable area and waters of the U.S. that would occur under the Current Modified Proposed Action.

(d) We have determined that because the avoidance of waters of the U.S. in Area A-5 with a 25-foot buffer would cause indirect adverse effects to the functions and services of the waters of the U.S. that are similar to the direct effects caused by the placement of fill material, Alternative 10 is not the LEDPA. In

addition, we have determined that the preservation of 115.1 acres of land associated with preserving the entire watershed of these waters of the U.S. to avoid indirect effects to hydrology is not reasonable for the minimal additional avoidance of 0.52 acres of waters of the U.S. that would be indirectly adversely affected by adjacent development, given the additional loss of developable area and waters of the U.S. that would occur under the Current Modified Proposed Action.

(e) We have determined that because the avoidance of waters of the U.S. in Area A-6 with a 25-foot buffer would cause indirect adverse effects to the functions and services of the waters of the U.S. that are similar to the direct effects caused by the placement of fill material, this Alternative 10 is not the LEDPA. In addition, we have determined that the preservation of an additional 198.4 acres of land associated with preserving the entire watershed of these waters of the U.S. to avoid indirect effects to hydrology is not reasonable for the minimal additional avoidance of 0.30 acres of waters of the U.S. that would be indirectly adversely affected by adjacent development, given the additional loss of developable area and waters of the U.S. that would occur under the Current Modified Proposed Action.

(f) We have determined that because the avoidance of waters of the U.S. in Area A-7 with a 25-foot buffer would cause indirect adverse effects to the functions and services of the waters of the U.S. that are similar to the direct effects caused by the placement of fill material, Alternative 10 is not the LEDPA. In addition, we have determined that the preservation of an additional 85.6 acres of land associated with preserving the entire watershed of these waters of the U.S. to avoid indirect effects to hydrology is not reasonable for the additional avoidance of 1.16 acres of waters of the U.S. that would be indirectly adversely affected by adjacent development, given the additional loss of developable area and waters of the U.S. that would occur under the Current Modified Proposed Action.

(7) We have determined that Alternative 8 would meet the overall project purpose, is available, and is practicable. Because this alternative would have fewer adverse effects to waters of the U.S. and special aquatic sites than the other practicable alternatives, we have determined that this alternative is the LEDPA.

e. Environmentally Preferred Alternative and Least Environmentally Damaging Practicable Alternative: The environmentally preferred alternative is Alternative 8. Although Alternatives 2 and 7 would also meet the overall project purpose and are practicable, these alternatives would have greater impacts to the aquatic environment, including special aquatic sites.

IV. Comments on the Final Environmental Impact Statement: One comment letter from USEPA was received on the final EIS.

a. USEPA: On April 8, 2016, USEPA provided the following comments:

(1) USEPA identified that while they appreciate the addition of the Modified Proposed Action alternative to the Final EIS, their comments on the Draft EIS regarding impacts to waters of the U.S. and LEDPA selection have not been resolved and they continue to object to issuance of a permit for the project.

Corps Response: The objection from USEPA is noted. Since receipt of the comment letter, the Corps has coordinated with USEPA to provide additional information regarding the Current Modified Proposed Action, including providing drawing, Section 404(b)(1) Alternatives Information, Draft Mitigation and Monitoring Plans, Draft Long-Term Management Plans, and Draft SPD Mitigation Ratio Setting Checklists. Since issuance of the Draft EIS, the applicant has revised the proposed action on two occasions. The Alternative 8, the Current Modified Proposed Action would result in the loss of 8.08 acres fewer waters of the U.S. than the proposed action identified in the Draft EIS, including 2.26 acres fewer vernal pools, 0.75 acre fewer seasonal wetlands, 2.96 acre fewer seasonal wetland swales, and 2.03 acre fewer intermittent drainages. As identified in Section III(d), the Corps has determined that the Current Modified Proposed Action is the LEDPA, and the environmentally preferable alternative.

(2) USEPA identified that their concerns regarding impacts on air quality and climate change made in the Draft EIS remain.

Corps Response: This comment is noted. The Corps believes the response to comments in the Final EIS adequately address the comments provided by USEPA regarding impacts on air quality and climate change.

(3) USEPA recommended that, prior to issuing a ROD, the Corps conduct an independent alternatives analysis and ensure that the selected alternative would avoid and minimize impacts to waters of the U.S. to the greatest extent practicable, and requested the results of the analysis be included in the ROD.

Corps Response: This comment is noted. The Corps is completing the evaluation regarding compliance of the Current Modified Proposed Action with the Section 404(b)(1) Guidelines in this ROD. As identified in Section III.d, the Corps has determined that the Current Modified Proposed Action is the LEDPA and the environmentally preferable alternative. The remaining evaluation of compliance with the Section 404(b)(1) Guidelines is in Section VII.

(4) USEPA commented that they believe an assessment of the availability of adequate mitigation opportunities for the project, should it proceed outside of a comprehensive regional conservation framework, is an important consideration.

Corps Response: During evaluation of the proposed action, the applicant provided a proposed compensatory mitigation plan to compensate for the loss of waters of the U.S. associated with a mixed-use development. The Corps has evaluated the proposed compensatory mitigation for consistency with Finding IX.e.

of the January 25, 2011, Sunridge Properties ROD (SPK-2009-00511), and has determined the required compensatory mitigation using the SPD Mitigation Ratio Setting Checklists, included in Appendix A. Finding IX.e. of the Sunridge Properties ROD requires that compensatory mitigation for unavoidable impacts to vernal pool wetlands within the Mather Core Recovery Area (MCRA) be (1) based on a method for assessing the functions of all waters of the U.S. on the project site; (2) accomplished at a ratio of greater than 1:1, after considering direct and indirect impacts, temporal loss and difficulties creating vernal pool wetlands; and (3) located in the Mather Core Recovery Area, unless determined impracticable or inappropriate by the Corps.

The applicant has proposed to compensate for the loss of vernal pools through on-site and off-site preservation, establishment at the Shehadeh Property, re-establishment and rehabilitation at the Chester Drive property, and establishment and rehabilitation at the Rooney Property. The applicant has proposed to compensate for the loss of other waters of the U.S. through the purchase of mitigation bank credits at the Cosumnes Floodplain Mitigation Bank.

Because there are no mitigation banks located within the MCRA, in order to be consistent with Finding e of the Sunridge Properties ROD, and to reduce the potential for significant degradation to waters of the U.S. within the 8-digit Hydrologic Unit Code (HUC) watersheds located on the Cordova Hills site, the Corps determined that it would be appropriate to deviate from the preference hierarchy at 33 CFR 332.3(b), and require permittee-responsible compensatory mitigation (PRM) for the unavoidable loss of vernal pools associated with the Current Modified Proposed Action. In addition, the Corps determined that purchase of credits at a Corps approved mitigation bank for direct and indirect effects to other aquatic resources on the site is appropriate.

Following receipt of the Draft mitigation and monitoring plans for the proposed PRM, the Corps evaluated whether establishment, re-establishment, or rehabilitation at the Shehadeh, Chester Drive, and Rooney properties would be appropriate. The Shehadeh property is a 160-acre site located approximately 6-miles south-west of the Cordova Hills site, within the MCRA, and is located in close proximity to a number of existing preserve areas, including Sylva, Kassis, and Excelsior 184, and is north-west of the existing Klotz Property Preserve. Based on available information, the soils and hydrology on this site are appropriate for vernal pool establishment. The Chester Drive property is a small, 14.4 acre site located approximately 15 miles south-west of the Cordova Hills property, within the MCRA. Although the Chester Drive property is small, the site contains a 13.7 acre vernal pool that has been separated from a larger +/- 150 acre vernal pool on the Bryte Ranch Mitigation Bank by a berm. Rehabilitation of the degraded vernal pool, consisting of grading and removal of the berm, would connect the portion of the vernal pool on the Chester Drive site with the larger vernal pool on Bryte Ranch. The Rooney Property is a 143 acre property located approximately 8.8 miles south-west of the Cordova Hills site, within the MCRA. While not located adjacent to

existing preserves, the Rooney Property is located south-east of a site containing a large vernal pool complex that while not a preserve currently, Sacramento County staff indicated to the Corps that they are looking at this property as a potential site for mitigation under the proposed SSHCP. Based on available information, the soils and hydrology on this site are appropriate for vernal pool establishment. After a review of the proposed sites, the Corps determined that these sites are appropriate as compensatory mitigation for unavoidable loss of vernal pools associated with the Modified Proposed Action, consisting of establishment, re-establishment, and rehabilitation, consistent with the requirements of 33 CFR 332 and the SPD Mitigation and Monitoring Guidelines (MMGs). In addition, the Corps evaluated whether it would be appropriate to require preservation of vernal pools is appropriate to compensate for the loss of vernal pools within the MCRA. In conducting this evaluation, the Corps took into account the requirements of 33 CFR 332.3(h), as described in Section VI. Through this evaluation, the Corps determined that because of their high quality nature, it was appropriate to allow preservation of vernal pools on the Cordova Hills site (that were not considered to be indirectly affected by adjacent development) as compensatory mitigation, and because of the undisturbed nature and proximity to existing preserves, the Corps determined it was appropriate to allow preservation of existing vernal pools on the Shehadeh property as compensatory mitigation. Because the existing vernal pools at the Rooney property have been previously affected by farming activities and because the Rooney property is not adjacent to existing preserves, the Corps determined it was not appropriate to allow preservation of the existing vernal pools on the Rooney property as compensatory mitigation. Section VI of this ROD contains additional information on compliance with 33 CFR 332.3(h).

To determine whether the amount of compensatory mitigation proposed by the applicant is sufficient, the Corps completed the SPD mitigation ratio setting checklists for each of aquatic resource type that would be directly and indirectly affected. For vernal pools, the Corps completed a checklist for vernal pool within the MCRA, and a checklist for vernal pools outside of the MCRA. In completing the checklists, the Corps took into account the functions and services of the aquatic resources on the impact site and mitigation site, mitigation site location, net loss of aquatic resource area, risk and uncertainty, whether the compensatory mitigation is in-kind or out of kind, and temporal loss. The Corps has determined the following compensatory mitigation is required for each aquatic resource type:

Vernal Pools: To compensate for direct effects to 13.43 acres and indirect effects to 0.73 acres of vernal pools, the applicant would be required to:

- Preserve 33.50 acres of vernal pools on the Cordova Hills site
- Preserve 2.68 acres of vernal pools and establish 15.23 acres of vernal pools on the Shehadeh site

- Rehabilitate 12.76 acres of vernal pools and re-establish 1.81 acres of vernal pools on the Chester Drive site
- Establish 6.75 acres and rehabilitate 1.70 acres of vernal pools on the Rooney Property

With the identified compensatory mitigation for direct and indirect effects to vernal pools, the overall ratio would be 5.25:1. The establishment/re-establishment/rehabilitation ratio for direct and indirect effects to vernal pools is 2.70:1, and the preservation ratio is 2.56:1.

Seasonal wetlands, seasonal wetland swales, seep, stock pond, and ditch: To compensate for direct effects to 14.04 acres and indirect effects to 0.97 acres, the applicant would be required to purchase 24.00 floodplain mosaic re-establishment credits from the Cosumnes Floodplain Mitigation Bank. The overall compensatory mitigation ratio for direct and indirect effects to seasonal wetlands, seasonal wetland swales, seeps, stock ponds, and ditches is 1.71:1

Intermittent Drainage: To compensate for direct effects to 4.51 acres and indirect effects to 0.95 acres of intermittent drainage, the applicant would be required to purchase 5.42 floodplain riparian establishment credits from the Cosumnes Floodplain Mitigation Bank. The overall compensatory mitigation ratio for direct and indirect effects to intermittent drainages is 0.99:1.

Overall, for direct effects to 31.98 acres and indirect effects to 2.65 acres of waters of the U.S., the applicant would be required to establish/re-establish/rehabilitated 67.67 acres of waters of the U.S, and preserve 36.18 acres of waters of the U.S. The ratio for compensatory mitigation for establishment/re-establishment/rehabilitation would be 1.95:1, the ratio for preservation would be 1.05:1, and the total ratio would be 3.0:1.

Because the Corps has determined that the compensatory mitigation identified above is appropriate and sufficient to compensate for the loss of waters of the U.S. associated with the Current Modified Proposed Action, it is not necessary to further evaluate the availability of compensatory mitigation sites.

(5) USEPA recommended that for future projects subject to the NEPA process, the Corps provide sufficient information in the Draft EIS to demonstrate compliance with the Section 404(b)(1) Guidelines.

Corps Response: The Draft and Final EIS for the Cordova Hills project were prepared to integrate the requirements of NEPA, the Section 404(b)(1) Guidelines, and the Corps' public interest review requirements. The Draft EIS identified and evaluated alternatives that were reasonable and potentially practicable, as required under NEPA, and eliminated alternatives that the Corps determined were not practicable based on alternatives information available at the

time of publishing of the Draft EIS. In addition, the Draft EIS contains sufficient information for the Corps to complete the factual determinations required for compliance with the Section 404(b)(1) Guidelines. However, sufficient alternatives information to identify the LEDPA and sufficient information regarding proposed compensatory mitigation was not submitted by the applicant until after the Final EIS was published. The Corps approach was in accordance with 40 CFR 1501.2, which requires agencies to initiate the NEPA process at the earliest possible time and to integrate the NEPA process with other planning processes. The Corps determined there was sufficient information regarding alternatives and environmental effects to adequately inform the public regarding the range of alternatives and anticipated environmental effects to warrant release of the Cordova Hills Draft EIS. An EIS is intended to provide information regarding the effects of a proposed action and alternatives on the human environment, and is not intended to make a final determination on whether a proposed action is in compliance with the Section 404(b)(1) Guidelines or whether a proposed action is contrary to the public interest, as these determinations are made in the ROD.

(6) USEPA commented that they believe that the additional degradation the proposed action represents, if it is not properly mitigated, is substantial and unacceptable and should be avoided.

Corps Response: The Corps' concurs with the statement from USEPA that if the direct and indirect effects are not sufficiently mitigated through avoidance, minimization, and compensatory mitigation, that the adverse effects may be significant. The Corps' determination that an EIS was necessary for the proposed action was partially based on potential significant effects to waters of the U.S. without sufficient information regarding project mitigation. Section VII addresses compliance of the Current Modified Proposed Action with the Section 404(b)(1) Guidelines, including whether this alternative would result in significant degradation of the aquatic ecosystem.

(7) USEPA commented that the proposed project is located in the landscape context of the larger draft South Sacramento Habitat Conservation Plan (SSHCP), and that they strongly support the development of the SSHCP, and appreciate the long-term efforts of many agencies and stakeholders, including the Corps, to advance the plan to near completion. USEPA identified that the response to comments in the Final EIS does not address their concern about the extremely limited mitigation opportunities available for the proposed project outside of a comprehensive regional conservation framework to protect, re-establish, and monitor vernal pool resources, such as the framework proposed in the SSHCP.

Corps Response: The Corps acknowledges that the Cordova Hills site is located within the area that would be covered if/when the proposed SSHCP is approved. The applicant has identified that they intend to comply with the requirements of the SSHCP, if/when it is approved. An "on-ramp" process for the SSHCP has been developed by the U.S. Fish and Wildlife Service, as further

described in Section V(c). The Corps does not have the authority to delay evaluation of a permit application pending approval of the SSHCP for an individual site. The Corps has evaluated the proposed action to ensure that direct and indirect effects to waters of the U.S. are avoided and minimized to the maximum extent practicable. As identified in Section III, the Corps has determined that the Current Modified Proposed Action is the LEDPA. In addition, the applicant has incorporated minimization measures into the Modified Proposed Action, including, but not limited to, a 50-foot landscape corridor from the outer edges of the preserve boundaries, minimization of effects to the soil restrictive layers, and preservation of avoided waters of the U.S. to minimize adverse effects. Even with the minimization measures incorporated by the applicant, the Corps has identified areas where indirect effects to waters of the U.S. may occur, which require compensatory mitigation. The Corps has evaluated the proposed compensatory mitigation, and completed the SPD Mitigation Ratio Setting Checklists to determine the required compensatory mitigation to compensate for the unavoidable direct and indirect effects of the proposed action, as identified in Corps Response to comment IV(4).

The Corps has conducted an analysis to determine whether the proposed action would result in a net loss of vernal pool acreage or functions and services within the MCRA, and a net loss of aquatic resource acreage or functions and services within the Lower Sacramento 8-digit HUC watershed, or Upper Cosumnes 8-digit HUC watershed.

Vernal Pools in the MCRA:

Under the Current Modified Proposed Action, there would be a permanent loss of 12.37 acres of vernal pools within the MCRA. The establishment and re-establishment of 23.79 acres of vernal pools on the Shehadeh, Chester Drive, and Rooney properties would result in a net increase of 11.43 acres of vernal pools, and a net increase in vernal pool functions and services within the MCRA. The establishment and re-establishment would also result in a net increase in aquatic resource functions and services. The additional 14.46 acres of rehabilitation on the Chester Drive and Rooney properties will result in a net increase in vernal pool functions and services within the MCRA, although not area. Finally, the preservation of 36.18 acres of high quality vernal pools on-site and on the Shehadeh site will remove these areas from future development, to further protect the MCRA. This compensatory mitigation for direct and indirect effects to vernal pools will reduce significant cumulative effects to vernal pools within the MCRA.

Aquatic Resources in the Lower Sacramento 8-digit HUC watershed:

Under the Current Modified Proposed Action, there would be a loss of 13.35 acres of aquatic resources (10.30 acre vernal pools, 0.49 acre seasonal wetlands, 1.48 acre seasonal wetland swales, 0.31 acre intermittent drainage, 0.08 acre of ditches, and 0.69 acre stock pond) within the Lower Sacramento 8-digit HUC watershed. The establishment and re-establishment of 23.79 acres of vernal pools

on the Shehadeh, Chester Drive, and Rooney properties would result in a net increase of 10.44 acres of aquatic resources within the Lower Sacramento 8-digit HUC watershed. The establishment and re-establishment would also result in a net increase in aquatic resource functions and services. The additional 12.76 acres of rehabilitation on the Chester Drive property will result in a net increase in vernal pool functions and services within the Lower Sacramento 8-digit HUC watershed. Finally, the preservation of 36.18 acres of high quality vernal pools on-site and on the Shehadeh site will remove these areas from future development, to further protect the Lower Sacramento 8-digit HUC watershed. This compensatory mitigation for direct and indirect effects to vernal pools will reduce significant cumulative effects to vernal pools within the Lower Sacramento 8-digit HUC watershed.

Aquatic Resources in the Upper Cosumnes 8-digit HUC watershed:

Under the Current Modified Proposed Action, there would be a loss of 18.62 acres of aquatic resources (3.13 acre vernal pools, 1.83 acre seasonal wetlands, 9.46 acre seasonal wetland swales, 0.01 acre seeps, and 4.19 acre intermittent drainage) within the Upper Cosumnes 8-digit HUC watershed. There would be an overall net gain of aquatic resource acreage and functions and services within the Upper Cosumnes 8-digit HUC watershed with the purchase of 29.42 floodplain mosaic and floodplain riparian establishment/re-establishment credits from the Cosumnes Floodplain Mitigation Bank. The additional 1.70 acres of rehabilitation on the Rooney property will result in a net increase in vernal pool functions and services, but not acreage, within the Upper Cosumnes 8-digit HUC watershed.

Therefore, while compensatory mitigation opportunities within the MCRA and Lower Sacramento 8-digit HUC watershed are limited, the Corps believes that sufficient compensatory mitigation exists for the Current Modified Proposed Action.

(8) USEPA agreed with the response in the Final EIS that the applicant has not yet demonstrated compliance with the Section 404(b)(1) Guidelines.

Corps Response: This comment is noted. As identified in Section III, the applicant has provided sufficient information to determine that the Current Modified Proposed Action is the LEDPA. Additional compliance with the Section 404(b)(1) Guidelines will be completed in Section VIII.

(9) USEPA expressed concern about the proposal in the Final EIS to mitigate for impacts to vernal pools and vernal swales through on-site preserves, two off-site properties, and through purchase of credits at mitigation banks. USEPA stated that this mitigation approach entails significant ecosystem fragmentation among the four on-site preserves, places off-site compensatory mitigation at two sites that are relatively small, and included mitigation credits at the Cosumnes River bank that would be out-of-kind.

Corps Response: This comment is noted. Since the Final EIS, the applicant has further modified the compensatory mitigation proposal. In addition, the Corps has evaluated the appropriateness of PRM, the proposed compensatory mitigation sites, and has completed the SPD Mitigation Ratio Setting Checklists. The Corps acknowledges that some habitat fragmentation will occur as a result of the on-site preserves. However, the plateau preserve, in the north-western portion of the site is a large preserve that contains the highest quality habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and Sacramento Orcutt grass, as well as habitat for other aquatic and upland species. In addition, the Paseo Central preserve, located in the central portion of the site, and the Carson Creek preserve, located in the eastern portion of the site, provide long-linear wildlife corridors that extent from north to south through the project site.

(10) USEPA stated that without sufficient information on proposed compensatory mitigation, they are unable to evaluate compliance with the Compensatory Mitigation Rule.

Corps Response: This comment is noted. Since publishing the Final EIS, the applicant has revised their compensatory mitigation proposal. The Corps has evaluated this proposal, the appropriateness of PRM, the proposed compensatory mitigation sites, and has completed the SPD Mitigation Ratio Setting Checklists.

(11) USEPA commented that Appendix C of the Final EIS (the applicant's mitigation proposal), states that the proposed mitigation is based on the South Pacific Division Mitigation Ratio Setting checklists that were completed by the Corps. USEPA requested an opportunity to review the checklists. USEPA also identified that the ratios provided in the mitigation plan seem inconsistent with what they would expect for a project that has "permittee responsible" mitigation, out-of-kind mitigation, and the attendant losses of functions that would be expected to result from a project of this magnitude on such a relatively pristine landscape. USEPA further commented they believe that additional mitigation would be required in order to comply with the 2008 Compensatory Mitigation Rule. Finally, USEPA commented that a larger regional plan, such as the SSHCP would, through regional land-use planning, long-term assurances, and watershed level conservation and mitigation, help compensate for, or avoid, the significant degradation of vernal pools to which the proposed action would otherwise cause or contribute.

Corps Response: The Corps provided Draft SPD Mitigation Ratio Setting Checklists to USEPA on October 12, 2016. The Final SPD Mitigation Ratio Setting Checklists were completed to account for all direct and indirect effects associated with development of the Current Modified Proposed Action, including both on-site construction and off-site road improvements. Consistent with the requirements of 33 CFR 332 and the SPD Mitigation Ratio Setting Checklists, the final compensatory mitigation requirements were made after taking into account a comparison between the impacted aquatic resources and the mitigation aquatic resources, mitigation site location, net loss of aquatic resource surface area, type conversion, risk and

uncertainty, and temporal loss. Overall, to compensate for direct effects to 31.96 acres and indirect effects to aquatic resource, the applicant would be required to establish/re-establish 23.79 acres of vernal pools, purchase 29.49 establishment/re-establishment credits from a Corps approved mitigation bank, rehabilitate 14.46 acres of vernal pools, and preserve 35.74 acres of vernal pools. The overall establishment/re-establishment mitigation ratio would be 1.67:1, which is appropriate, given the majority of the direct and indirect effects would be compensated through the purchase of mitigation bank credits, reducing risk and uncertainty and temporal loss associated with compensatory mitigation.

(12) USEPA stated that part of the reduction from the previous Proposed Action to the Modified Proposed Action is accomplished by eliminating the Pilatus property from the proposal, and stated they consider this a temporary avoidance as the Pilatus property may be subject to future commercial or residential growth unless it is put into a conservation easement.

Corps Response: To clarify, when the original permit application was submitted by the applicant in 2008, development of the Pilatus property to the north of the Cordova Hills site was proposed. As identified in Section III.a., when the applicant requested approval from Sacramento County to accept an application for development of the Cordova Hills and Pilatus sites, Sacramento County instructed the applicant to eliminate proposed development of the Pilatus site. The Proposed Action evaluated in the Draft EIS does not include development of the Pilatus property, although an alternative including development of the Pilatus property was included in the Draft EIS. As identified in Section III.d., the Corps has determined that the Pilatus Alternative is not the LEDPA, as it would result in greater affects to waters of the U.S. than the Current Modified Proposed Action. Since the Draft EIS, the applicant has reduced the proposed discharge of dredged or fill material into waters of the U.S. on the Cordova Hills site by approximately 8.08 acres. This reduction in discharge into waters of the U.S. is not related to the Pilatus property. The Corps acknowledges that a permit application may be submitted in the future for development of the Pilatus property, although the Corps has not been given any information to indicate that such permit application will be submitted in the foreseeable future. The Corps understands that USEPA is interested in permanent preservation of the Pilatus property. However, the Corps is responsible for evaluating compensatory mitigation proposals, determining whether the proposed compensatory mitigation is appropriate and sufficient, and if not, either requiring the applicant provide an updated compensatory mitigation proposal, or, if the applicant is not willing to modify the proposal, make a final permit decision on the compensatory mitigation proposal. The Corps does not have the authority to require that an applicant propose a particular property as compensatory mitigation. For the Current Modified Proposed Action, the Corps has evaluated the compensatory mitigation proposal and completed the SPD Mitigation Ratio Setting Checklists, and determined the final type and amount of compensatory mitigation.

(13) USEPA commented that the alternatives information submitted by the applicant in the Draft EIS and the Comparison to the Proposed Action and Alternatives in the Final EIS do not clearly demonstrate that the Modified Proposed Action Alternative is the LEDPA. USEPA identified that since publishing the Final EIS, the Corps provided USEPA with information regarding another alternative that would have fewer direct impacts than the Proposed Action identified in the Draft EIS or the Modified Proposed Action identified in the Final EIS, but they have not had the opportunity to review the impacts of this alternative. USEPA stated that only the LEDPA that achieves the overall project purpose, while not contributing to significant degradation of the aquatic ecosystem, can be permitted by the Corps.

Corps Response: This comment is noted. Since publishing of the Final EIS, additional information regarding the Current Modified Proposed Action has been provided to USEPA. The Corps agrees with the comment by USEPA that only the LEDPA, while not contributing to significant degradation of the aquatic ecosystem, can be permitted by the Corps. In addition, in order to issue a permit for a proposed activity, the Corps must ensure that a proposed action meets all other requirements of the 404(b)(1) Guidelines, is not contrary to the public interest, and is in compliance with other Federal laws and executive orders, including, but not limited to, Section 7 of the Endangered Species Act, and Section 106 of the National Historic Preservation Act. This ROD discusses the Corps' compliance with the 404(b)(1) Guidelines, the public interest review factors, and compliance with other Federal laws and executive orders,

(14) USEPA noted that the Sacramento Area Council of Governments (SACOG) adopted the 2016 update to the Metropolitan Transportation Plan (MTP) and Sustainable Communities Strategy (SCS) in February 2016. USEPA noted that the Cordova Hills project was not included in the MTP/SCS, which was designed to reduce greenhouse gas emissions and other environmental impacts while accommodating population growth in the region. USEPA commented that this regional planning context should be considered in the evaluation of the proposed project and its alternatives.

Corps Response: This comment is noted. As identified at <http://www.sacog.org/metropolitan-transportation-plansustainable-communities-strategy>, if a city, county, or public agency in the Sacramento region wants to use federal transportation funding for transportation project or programs, those projects must be included in the MTP/SCS project list. The MTP/SCS is not a regulatory document. The Corps acknowledges that the Cordova Hills project is not identified in the MTP/SCS, however, Sacramento County has approved the proposed specific plan for the Cordova Hills project. The Draft EIS provides a full analysis of the effects of the proposed action on air quality and greenhouse gas emissions. The applicant's air quality management plan has been approved by the entities responsible for this approval. The Corps does not believe the MTP/SCS is relevant to evaluation of the Current Modified Proposed Action to determine whether it meets the Section 404(b)(1) Guidelines or is contrary to the public interest.

(15) USEPA commented that the practice of deferring the disclosure of information needed to evaluate compliance with the Section 404(b)(1) Guidelines makes it difficult for agencies and the public to provide timely and substantive input on the evaluation of alternatives. USEPA noted the SPD Quality Management System (QMS) Standard Operating Procedure for Preparing and Coordinating EISs, which discusses that districts make reasonable effort to ensure the NEPA alternatives analysis is thorough and robust enough to provide the information needed for the evaluation of alternatives under the 404(b)(1) Guidelines and public interest review.

Corps Response: See Corps Response to Comment IV.a.5.

(16) USEPA commented that the discussion of alternative in the Final EIS does not provide information needed for the evaluation of alternatives under the Section 404(b)(1) Guidelines, and does not provide information to suggest that the proposed action could potentially be the LEDPA. EPA stated they are therefore, still unable to fully evaluate whether the Proposed Action may be the LEDPA, or whether it complies with the other restrictions on discharge under the Section 404(b)(1) Guidelines.

Corps Response: This comment is noted. See Corps Response to Comment IV.a.3. and IV.a.8.

(17) USEPA recommended that the Corps make information on compliance with the 404(b)(1) Guidelines available for future EISs on other projects, and stated the information should include (1) an avoidance and minimization analysis, and (2) a description of how costs, logistics, and technical feasibility were used to eliminate alternatives with lesser impacts to wetlands.

Corps Response: See Corps Response to Comment IV.a.5.

(18) USEPA commented that they did not include recommendation for additional "avoidance and minimization" in their Draft EIS comment letter, as they believe that a permit under Section 404 of the Clean Water Act is not viable unless it is considered in the context of the SSHCP. In addition, USEPA commented that that they have written a 404(q) elevation letter clearly stating their objections to the project. USEPA identified that they are available and willing to continue meeting with the Corps and applicant to discuss their comments and further refine the project proposal.

Corps Response: This comment is noted. Since publishing the Final EIS, coordination between the Corps and USEPA has occurred through meetings, and email and telephone correspondence. In addition, the Corps has provided USEPA with information regarding the Current Modified Proposed Action, proposed

compensatory mitigation, Draft Mitigation and Monitoring Plans, and Draft Long Term Management Plans.

V. Consideration of Applicable Laws and Policies

a. National Environmental Policy Act (NEPA): The proposed action is in compliance with NEPA. The Draft and Final EIS was completed to evaluate a reasonable range of alternatives and the direct, indirect, and cumulative effects associated with 7 alternatives, consisting of the No Action Alternative, Proposed Action Alternative, Expanded Drainage Preservation Alternative, Expanded Preservation Alternative, Pilatus Alternative, Regional Conservation Alternative and Final EIS Modified Proposed Action. The Corps followed the NEPA process identified in 40 CFR Parts 1500 – 1508, 33 CFR Part 230, and 33 CFR Part 325, Appendix B, including noticing and timeline requirements, to produce an EIS that discloses to the public the probable impacts of each alternative, taking into account mitigation. The EIS is being utilized to make a permit decision on the proposed action.

b. Section 401 of the Clean Water Act (CWA): The proposed action is in compliance with Section 401 of the CWA. The Water Quality Certificate (WQC) was issued on June 29, 2016 and is included in Appendix B. Pursuant to 33 U.S.C. 1341(d), special conditions of the Section 401 WQC/W will be added as a special condition of any DA permit.

c. Endangered Species Act of 1973 (ESA): On December 8, 2016, the U.S. Fish and Wildlife Service (USFWS), issued a Biological Opinion (BO) (USFWS # 08ESMF00-2016-F-2190) for proposed impacts to vernal pool fairy shrimp, vernal pool tadpole shrimp, and Sacramento Orcutt grass. Compliance with the BO will be added as a special condition of any DA permit. The BO is located in Appendix C. The BO issued by the USFWS describes the process for early permitting of projects included within the boundaries of the proposed SSHCP. The BO is intended as an “on-ramp” to jump start the SSHCP conservation strategy if/when the SSHCP is approved by the USFWS. As identified by USFWS in the BO, “an important underlying concept for the on-ramp process is that offsetting conservation and mitigation for impacts to federally listed species and waters of the U.S. will be different for a single project evaluated by itself as opposed to a single project evaluated based on its contribution to a regional conservation strategy.” The on-ramp process also relies on a project description that is consistent with the draft SSHCP conservation strategy, best management practices (BMPs), and Avoidance and Minimization Measures. In the BO, the USFWS identified that the Current Modified Proposed Action would compensate for direct effects to vernal pool fairy shrimp and vernal pool tadpole shrimp by preserving 3 acres of wetted habitat per 1 acre wetted habitat directly affected (3:1 ratio), and indirect effects by preserving 2 acres of wetted habitat per 1 acre wetted habitat indirectly affected. In addition, USFWS identified in the BO that 2 acres wetted habitat must be preserved within the Mather Core Recovery Area per 1 acre wetted habitat affected. In the BO, the

USFWS identified transitioning of the preserve to the SSHCP, which includes transferring the mitigation lands, management and monitoring responsibilities, and endowment funds to the SSHCP Implementing Entity. In addition, the BO identifies that with the assumption that compensatory mitigation ratios are higher for the Current Modified Proposed Action than what will be required for the SSHCP, the Implementing Entity will reimburse or buy excess mitigation from the applicant, so the applicant assumed only those mitigation obligations required by the SSHCP. If the Implementing Entity is unable to purchase the excess mitigation, the BO states the applicant would be free to sell the excess mitigation to another party.

d. Fish and Wildlife Coordination Act (FWCA): The proposed action is in compliance with the FWCA. Chapter 3.4 of the Draft EIS identifies the impacts of the proposed action on fish and wildlife species. The Corps has worked with the USFWS on the proposed action, including meetings to obtain input, and providing a copy of the Draft EIS. During preparation of the Draft EIS, the Corps requested that USFWS be a cooperating agency. USFWS provided comments on the Draft EIS on September 29, 2015, for compliance with the Fish and Wildlife Coordination Act. Responses to the comments from the USFWS were provided in the Final EIS.

e. Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): The proposed action is in compliance with the MSFCMA: No effects to essential fish habitat would occur from the Current Modified Proposed Action.

f. Section 106 of the National Historic Preservation Act (NHPA): The proposed action is in compliance with Section 106 of the NHPA. Chapter 3.6 of the Draft EIS identifies impacts of the proposed action on cultural resources. The Corps has determined that the Current Modified Proposed Action would have no effect to resources listed on or eligible for listing on the National Register of Historic Places. The State Historic Preservation Officer concurred with this determination on October 11, 2012, which is located in Appendix D. Due to the possibility of unanticipated discovery during construction, SHPO recommended that an archaeological monitor be present during all ground disturbing activities. Because several prehistoric resources were identified on the site, we have determined that it is appropriate to require an archaeological monitor be present during all ground disturbing activities and the requirement will be added as a special condition of any DA permit.

g. Section 176(C) of the Clean Air Act (CAA) General Conformity Rule Review: The proposed action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. The Corps has determined that direct emissions from the proposed activities that require a DA permit will not exceed de minimis levels of a criteria pollutant or its precursors and are exempted by 40 CFR 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons, a conformity determination is not required for this action.

h. Executive Order (EO) 11988: Floodplain Management: The only FEMA mapped 100-year floodplain on the Cordova Hills site is the Carson Creek corridor, on the eastern portion of the site. Carson Creek and its FEMA mapped 100-year floodplain will be preserved in perpetuity, and therefore there would be no development in the floodplain. A 100-year floodplain was also identified adjacent to an unnamed tributary to Deer Creek that flows from north to south through the center of the site, and Upper Laguna Creek, which flows from the north to the west in the western portion of the site. The Draft and Final EIS and this ROD considered and analyzed various alternatives for development of the Cordova Hills site and considered impacts to the floodplain as required by EO 1988. Both of these creeks and their floodplains would be preserved under the Current Modified Proposed Action, although fill in waters of the U.S. and the floodplain would occur through the construction of road and pedestrian crossings and installation of utility lines. Because of the location of the unnamed tributary to Deer Creek and Upper Laguna Creek, development on the eastern portion of the site would not be possible without the road/pedestrian crossings and utility lines. As part of the conditions of approval by Sacramento County, which were incorporated into the Proposed Action identified in the Draft EIS, there can be no net loss of storage for any fill placed within the 100-year floodplain without in-kind excavation, unless documented and approved through the submittal and review of a comprehensive drainage study. As identified in the Draft EIS, the effects of the Proposed Action on the floodplain would be less than significant. The impacts to the floodplain under the Current Modified Proposed action would be the same as identified in the Draft EIS for Alternative 2. Because the Current Modified Proposed Action would include additional preservation adjacent to the unnamed tributary to Deer Creek than the Draft EIS Proposed Action, and because the Sacramento County conditions of approval would apply to this alternative the effects would be less than significant. The Current Modified Proposed Action is in compliance with Executive Order 11988.

i. Executive Order 13175: Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: The proposed action is in compliance with Executive Order 13175. Tribal coordination was conducted between 2006 and 2008 through letter and follow-up telephone calls with Native American tribes/individuals. No comments were received. Documentation of all Native American coordination is located in the administrative record.

j. Executive Order 12898: Environmental Justice: The proposed action is in compliance with Title VI of the Civil Rights Act and Executive Order 12898. The proposed action is not expected to negatively impact any community, and therefore is not expected to cause disproportionately high and adverse impacts to minority or low-income communities.

VI. Consideration of Mitigation Measures: The Draft EIS included a number of mitigation measures to reduce or offset impacts that fall outside of the Corps responsibility and generally cannot be practicably controlled by the Corps, such as those associated traffic, air quality, and noise. Many of the mitigation measures are

requirements of Sacramento County. As such, these mitigation measures are enforced by Sacramento County and not the Corps.

The Corps requires mitigation measures to reduce or offset impacts to waters of the U.S. as special conditions of each DA permit issued. These special conditions are identified in Section VIII, and take into account the mitigation measures identified in Chapter 3.4, 3.6, and 3.10 of the Draft EIS, and also include additional conditions that avoid, minimize, and compensate for effects to waters of the U.S., and those that ensure compliance with Section 7 of the ESA, Section 106 of NHPA, and Section 401 of the Clean Water Act.

Because the Current Modified Proposed Action would result in the discharge of dredged and/or fill material into vernal pools within the MCRA, during permit evaluation, the Corps identified to the applicant the importance of compensatory mitigation within the MCRA, as identified in the Sunridge Properties ROD (See Section IV.a.4 for additional discussion of this ROD). The applicant identified three sites within the MCRA, the Shehadeh property, Chester Drive property, and Rooney property and provided the Corps with Mitigation and Monitoring Plans (MMPs) for establishment, re-establishment, and rehabilitation activities at these three sites. Based on the information provided by the applicant, it appears as though these three sites are suitable for vernal pool establishment, re-establishment, and rehabilitation, as they have suitable soils and hydrology to support vernal pools. Because (1) there is a lack of mitigation banks within the MCRA, (2) it is unlikely that in-lieu fee (ILF) program credits would result in compensatory mitigation within the MCRA, and (3) there has been a significant cumulative loss of waters of the U.S. within the MCRA, the Corps has determined it is appropriate to deviate from the hierarchy for compensatory mitigation identified in 33 CFR 332.3(b).

The Corps also evaluated the applicant's proposal to provide compensatory mitigation through on-site and off-site preservation of vernal pools within the MCRA, in conjunction with establishment, re-establishment, and rehabilitation, and determined that vernal pool preservation on the Cordova Hills site and Shehadeh site is appropriate as compensatory mitigation because:

- a. Vernal pools provide important functions within the watershed, including, but not limited to: habitat for federally listed threatened and/or endangered species; water filtration; and water storage;
- b. Vernal pools within the MCRA contribute significantly to the ecological sustainability of the watershed, and assist in recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp;
- c. Vernal pools within the Mather Core Recovery Area are under continued threat of destruction or adverse modification, as this area has been designated for development by Sacramento County and the City of Rancho Cordova; and

d. The preservation areas would be permanently protected through conservation easements.

In order to determine the appropriate amount, and type of compensatory mitigation required to compensate for both direct and indirect effects to waters of the U.S. associated with construction of the Current Modified Proposed Action, the Corps completed the SPD Mitigation Ratio Setting Checklists, see Section VIII for the required compensatory mitigation.

As identified in Section V.c., within their BO, USFWS identified a strategy for the applicant to “on-ramp” to the SSHCP if/when a Section 10 permit is issued by the USFWS for the SSHCP. The Corps has determined that it is not appropriate to develop a similar strategy, as the Current Modified Proposed Action is being evaluated as an independent project, is not being considered in the context of a Regional Habitat Conservation Plan, and because the SSHCP has not been finalized or approved. The Corps understands that if the SSHCP is approved, and the Corps develops a permitting strategy for activities subject to Section 404 of the Clean Water Act under the SSHCP, the applicant may propose to incorporate the on-site preserves, Shehadeh, Chester Drive, and Rooney properties into the SSHCP through transfer of the sites, management of the preserves, and/or endowment funds to the SSHCP Implementing Entity. If a request is provided to the Corps to transfer the sites, management of the preserves and/or endowment funds in the future, the Corps will evaluate the request and determine whether to approve such a request.

As also identified in Section V.c., the USFWS identified that if/when the SSHCP is approved, if there is excess mitigation that has been provided by the applicant, the applicant may sell the excess mitigation to the SSHCP Implementing Entity, or another entity. The Corps has determined that the compensatory mitigation requirements identified in Section VIII are required to compensate for the direct and indirect effects to waters of the U.S., and ensure the Current Modified Proposed Action does not result in significant degradation to the aquatic environment. No excess compensatory mitigation for the effects to waters of the U.S. identified in Section VIII will exist if/when the SSHCP is approved.

For the Rooney property, as identified in Section VIII, the Corps has determined that establishment of 6.75 acres of vernal pools is necessary to partially compensate for the direct and indirect effects of the proposed action on vernal pools. As identified in the January 3, 2017, Final Wetland Mitigation and Monitoring Plan, Cordova Hills Project – Rooney Ranch Property (Rooney MMP), the applicant is proposing to construct 12.57 acres of vernal pools on the Rooney property. The 5.82 acres of vernal pools on the Rooney property not required as compensatory mitigation are intended to be utilized by the applicant as contingency vernal pools, which will be used to help meet compensatory mitigation requirements for the Current Modified Proposed Action if success of the established, re-established and rehabilitated vernal pools required for the Shehadeh, Chester Drive, and Rooney properties are

not met. The Corps understands that if the 5.82 acres of contingency vernal pools are not needed to fulfill compensatory mitigation requirements for the Current Modified Proposed Action, the applicant or another entity may propose to use these established vernal pools to compensate for a future proposed activity. The Corps will evaluate any such proposals in accordance with existing regulations and guidance to determine whether the contingency vernal pools can be used to compensate for a different proposed activity.

VII: Compliance with 404(b)(1) Guidelines

a. Restrictions on Discharge:

Yes No Based on the discussion in Section III.d., are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into "waters of the U.S." or at other locations within these waters?

Yes No If the project is in a special aquatic site and is not water dependent, has the applicant clearly demonstrated that there are no practicable alternative sites available?

Will the discharge:

Yes No Violate state water quality standards?

Yes No Violate toxic effluent standards under Section 307 of the Clean Water Act?

Yes No Jeopardize endangered or threatened species or their critical habitat?

Yes No Violate standards set by the Department of Commerce to protect marine sanctuaries? Yes ___ No ___

Evaluation of the information in the Draft EIS above indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s):

based on the above information, the material is not a carrier of contaminants.

the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.

acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

Will the discharge contribute to significant degradation of “waters of the U.S.” through adverse impacts to:

Yes No Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and/or special aquatic sites?

Yes No Life stages of aquatic life and/or wildlife?

Yes No Diversity, productivity, and stability of the aquatic life and other wildlife? Or wildlife habitat or loss of the capacity of wetlands to assimilate nutrients, purify water or reduce wave energy?

Yes No Recreational, aesthetic and economic values?

While the Current Modified Proposed Action will result in direct and indirect adverse effects to waters of the U.S., including effects to those resources identified above, the measures identified in the Draft EIS, USFWS BO, the mitigation measures identified in Section VI, and the Special Conditions identified in Section VIII will reduce adverse effects to avoided waters of the U.S. In addition, the compensatory mitigation identified in Section VI and required as a Special Condition as identified in Section VIII, will adequately compensate for direct and indirect effects to waters of the U.S., and ensure no net loss of aquatic resource acreage and functions and services within the MCRA, the Lower Sacramento 8-digit HUC watershed, and the Upper Cosumnes 8-digit HUC watershed, as explained in Section IV.a.7.

Yes No Will all appropriate and practicable steps be taken to minimize adverse impacts of the discharge on the aquatic ecosystem? Does the proposal include satisfactory compensatory mitigation for losses of aquatic resources?

b. Factual Determinations:

(1) Physical Substrate Determination: Chapter 3.8, *Geology, Soils, Minerals, and Paleontological Resources* of the Draft EIS, identifies the nature and degree of effect that the proposed action will have, individually and cumulatively, on the characteristics of the substrate at the disposal site for development of the proposed action. The Current Modified Proposed Action would have fewer adverse effects than those identified in the Draft EIS. Avoidance and preservation of waters of the U.S. and the surrounding uplands on the site and the Special Conditions identified in Section VIII would minimize effects to the substrate.

(2) Water circulation, fluctuation, and salinity determinations: Chapters 3.4, *Biological Resources*, and 3.10, *Hydrology and Water Quality* of the Draft EIS, identify the nature and degree of effect that the proposed action will have, individually and cumulatively on water, current patterns, circulation including downstream flows, and normal water fluctuation for development of the Proposed Action. The Current Modified Proposed Action would have fewer adverse effects than those identified in the Draft EIS. The avoidance and preservation of waters of the U.S., additional upland buffers, and the requirements of the Special Conditions identified in Section VIII would minimize effects to water circulation, fluctuation, and salinity.

(3) Suspended particulate/turbidity determinations Chapters 3.4, *Biological Resources*, 3.8, *Geology, Soils, Minerals, and Paleontological Resources*, and 3.10, *Hydrology and Water Quality*, of the Draft EIS, identify the nature and degree of effect that the proposed action will have, individually and cumulatively, in terms of potential changes and concentrations of suspended particulate/turbidity in the vicinity of the disposal site for the Proposed Action. The Current Modified Proposed Action would have fewer adverse effects than those identified in the Draft EIS. Avoidance and preservation of waters of the U.S. and the surrounding uplands on the site, adherence to the Section 401 Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit, and the Special Conditions identified in Section VIII would minimize effects from suspended particulates and turbidity.

(4) Contaminant determinations: Chapters 3.8, *Geology, Soils, Minerals, and Paleontological Resources*, 3.9, *Hazardous Waste and Materials*, and 3.10, *Hydrology and Water Quality*, of the Draft EIS, identify the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants for the Proposed Action. The Current Modified Proposed Action would have fewer adverse effects than those identified in the Draft EIS. No known contaminants occur on the proposed action site, and imported fill material would be obtained from an existing commercial source. In addition, Special Condition 18 requires that only clean and non-toxic fill material shall be used, which would ensure that imported material does not contain contaminants, thereby minimizing effects.

(5) Aquatic ecosystem and organism determinations: Chapter 3.4, *Biological Resources*, of the Draft EIS, identifies the nature and degree of effect that the proposed action will have, individually. Avoidance and preservation of waters of the U.S. and the surrounding uplands on the site, the required compensatory mitigation identified in Special Condition 2, and the other Special Conditions identified in Section VIII would minimize effects and ensure no net loss of aquatic resource functions and serviced.

(6) Proposed disposal site determination: Because development of the Current Modified Proposed Action would occur within streams that would be dry

during construction, as required by Special Condition 19, no effects to the mixing zone are expected.

(7) Determination of cumulative effects on the aquatic ecosystem: Cumulative effects of development of the Proposed Action on the aquatic ecosystem is located within Sections 3.1 through 3.17 of the Draft EIS. The Current Modified Proposed Action would have fewer adverse effects than those identified in the Draft EIS. The compensatory mitigation in Special Condition 2 ensures no net loss of aquatic resource functions and services within the MCRA, Lower Sacramento 8-digit HUC watershed, and Upper Cosumnes 8-digit HUC watershed (See Section IV(a)(7)). The avoidance and preservation of waters of the U.S. and the requirements of the BO and Special Conditions identified in Section VIII would ensure that cumulative effects on the aquatic ecosystem are minimized to the maximum extent practicable.

(8) Determination of secondary effects on the aquatic ecosystem: Chapters 3.4, *Biological Resources*, and 3.10, *Hydrology and Water Quality*, of the Draft EIS identify the secondary (indirect) effects of development proposed action the aquatic ecosystem. Avoidance and preservation of waters of the U.S. and the surrounding uplands on the site and the Special Conditions identified in Section VIII would minimize effects.

VIII. Special Conditions: The following special conditions will be included in the DA permit to ensure the project is not contrary to the public interest and complies with the 404 (b)(1) Guidelines:

a. Special Condition 1: Prior to the construction of any road or pedestrian crossing or utility line (not including utility lines located within existing or authorized roadways) through waters of the U.S. on the Cordova Hills site required to be preserved by Special Condition 6, you shall submit to this office, for review and written approval, the following:

(1) Cross-section view drawings of the road and utility line crossings of waters of the U.S. that would be constructed;

(2) Pre-construction color photographs of the upstream and downstream area of each crossing. The compass angle and location of each photograph shall be identified on the plan-view drawing; and

(3) A description of any proposed deviations from the authorized work, including the amount and type of waters that would be permanently or temporarily affected, and the amount and type of compensatory mitigation proposed.

Rationale: *This condition is necessary to review the final design for road/pedestrian and utility line crossings through required preserves to ensure no additional direct or indirect effects not previously considered would occur, ensure*

compliance with the permit and applicable conditions and to ensure that no changes have occurred to the proposed action prior to each phase. (33 USC 1344(a), 33 USC 401 et. seq., 33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 326).

b. Special Condition 2: Prior to the initiation of construction activities in waters of the U.S., you shall compensate for the permanent loss of 31.97 acres and indirect effects to 2.61 acres of waters of the U.S., as follows:

(1) For direct effects to 13.43 acres of vernal pools and indirect effects to 0.73 acres of vernal pools, you shall:

(a) Preserve 33.50 acres of vernal pools within a 602 acre preserve on the Cordova Hills site, as identified in the enclosed September 27, 2016, *Cordova Hills Modified Proposed Action*, drawing, prepared by ECORP Consulting, Inc. This preserve shall be managed in perpetuity as identified in Special Conditions 6 through 11. You shall establish this preserve prior to initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(b) Preserve 2.68 acres of vernal pools within a 160 acre preserve on the Shehadeh site, as shown in the enclosed December 21, 2016, *Figure 11. Location of Created Vernal Pools at the Shehadeh Mitigation Site*, prepared by ECORP Consulting, Inc. This preserve shall be managed in perpetuity as identified in Special Conditions 6 through 11. You shall establish this preserve prior to initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(c) Establish 15.23 acres of vernal pools on the Shehadeh site, as shown on the December 21, 2016, *Figure 11. Location of Created Vernal Pools at the Shehadeh Mitigation Site*, drawing, prepared by ECORP Consulting, Inc. Construction of these vernal pools was completed in 2015. Preservation of the established vernal pools shall be managed in perpetuity as identified in Special Conditions 6 through 11. You shall fully implement the approved January 3, 2017, *Final Wetland Mitigation and Monitoring Plan, Cordova Hills Project – Shehadeh Property* (Shehadeh MMP), prepared by ECORP Consulting, Inc.

(d) Re-establish 1.81 acres, and rehabilitate 12.76 acres of vernal pools on the Chester Drive site, as shown on the December 15, 2015, *8263 Chester Drive Vernal Pool Creation Plan Exhibit*, drawing, prepared by Rick Engineering Company. Preservation of the established waters shall be managed in perpetuity as identified in Special Conditions 6 through 11. You shall fully implement the approved January 3, 2017, *Final Wetland Mitigation and Monitoring Plan, Cordova Hills Project – Chester Drive Property* (Chester Drive MMP), prepared by ECORP Consulting, Inc. You shall commence construction of this compensatory mitigation prior to or concurrent with initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area, and you shall

complete construction of this compensatory mitigation within 60 days from initiation of construction activities authorized by this permit on the Cordova Hills site or off-site infrastructure area. You shall submit as-built drawings of the re-established and rehabilitated vernal pool as well as a description of any deviations from the approved drawing identified in this condition within 60 days following completion of establishment and rehabilitation of the vernal pools.

(e) Establish 6.75 acres and rehabilitate 1.70 acres of vernal pools on the Rooney Site, as shown on the December 20, 2016, *Figure X. Proposed Cordova Hills Mitigation (Rooney Property Vernal Pool Creation and Restoration)* drawing, prepared by ECORP Consulting, Inc. Preservation of the established waters shall be managed in perpetuity as identified in Special Conditions 6 through 11. You shall fully implement the approved January 3, 2017, *Final Wetland Mitigation and Monitoring Plan, Cordova Hills Project – Rooney Ranch Property (Rooney MMP)*, prepared by ECORP Consulting, Inc. You shall commence construction of this compensatory mitigation prior to or concurrent with initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area, and you shall complete construction of this compensatory mitigation within 60 days from initiation of construction activities authorized by this permit on the Cordova Hills site or off-site infrastructure area. You shall submit as-built drawings of the established and rehabilitated vernal pools as well as a description of any deviations from the approved drawing identified in this condition within 60 days following completion of establishment and rehabilitation of the vernal pools.

(2) For direct effects to 2.32 acres and indirect effects to 0.27 acre of seasonal wetlands, purchase 4.32 floodplain mosaic establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(3) For direct effects to 10.94 acres and indirect effects to 0.67 acres of seasonal wetland swales, purchase 18.53 floodplain mosaic establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(4) For direct effects to 0.69 acres of stock pond, purchase 1.04 floodplain mosaic establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(5) For direct effects to 0.01 acre of seep, purchase 0.03 floodplain mosaic establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall

submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(6) For direct effects to 4.51 acres and indirect effects to 0.95 acre of intermittent drainages, purchase 5.42 floodplain riparian establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(7) For direct effects to 0.08 acres of ditches, purchase 0.08 floodplain mosaic establishment credits from the Cosumnes Floodplain Mitigation Bank. You shall submit proof of purchase of these credits this office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

Rationale: *This special condition is necessary to ensure successful compensatory mitigation for the unavoidable losses of waters of the U.S. due to the construction of the Proposed Action. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332, 40 CFR 230).*

c. Special Condition 3: You shall monitor the established, re-established, and rehabilitated vernal pools required in Special Condition 2(a)(3) through 2(a)(5) for a minimum of 8 years or until the performance standards described in the approved mitigation and monitoring plans are met, whichever is greater. This period shall commence upon completion of the construction of the established, re-established, and rehabilitated vernal pools. If the compensatory mitigation is not meeting the required performance standards at any time, this office may determine that the compensatory mitigation is not in compliance and require additional remedial actions, including, but not limited to, additional monitoring, or alternative compensatory mitigation. You shall demonstrate continued success of the compensatory mitigation, without human intervention, for three consecutive years after the final performance standards have been met. The compensatory mitigation will not be deemed successful until this criterion has been met.

(1) You shall submit annual monitoring reports to this office by December 31 for each year of the 8-year monitoring period and for all additional years required by the Corps. You shall submit an additional monitoring report at the end of the three-year period demonstrating continued success of the mitigation program without human intervention or the eighth monitoring year, whichever is greater. The annual reports shall follow the format identified in the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division*, which can be found online at <http://www.spd.usace.army.mil/Portals/13/docs/regulatory/mitigation/MitMon.pdf>.

(2) Your responsibility to complete the required compensatory mitigation as set forth in Special Condition 2(a)(3) through 2(a)(5) will not be considered fulfilled until you have demonstrated that the required compensatory mitigation is meeting the final performance standards and have received written verification from this office.

Rationale: *This special condition is necessary to ensure the required compensatory mitigation is meeting the required performance standards and if not, to determine if measures are necessary to ensure that the compensatory mitigation is accomplishing its objectives. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332.6, 40 CFR 230).*

d. Special Condition 4: You shall submit to this office, for review and approval, a map identifying the vernal pools proposed to be used as reference sites for compensatory mitigation on the Shehadeh and Rooney sites required in Special Conditions 2(a)(3) and 2(a)(5), as well as appropriate justification to show that these vernal pools are appropriate to be used as reference vernal pools. For the Rooney property, you shall submit the proposed reference sites prior to the first year of monitoring of the established, re-established, and rehabilitated vernal pools. For the Shehadeh property, you shall submit the proposed reference sites prior to the submittal of the first year monitoring report.

Rationale: *This special condition is necessary to ensure appropriate reference vernal pools are utilized to ensure the required compensatory mitigation is meeting the required performance standards. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332.6, 40 CFR 230).*

e. Special Condition 5: To ensure successful completion of the compensatory mitigation required in Special Condition 2(a)(3) through 2(a)(5), you shall post a performance bond in the amount of \$3,781,935 with a Federally-approved surety for the approximate cost of wetland construction and monitoring. Alternatively, you may post three separate bonds for the Shehadeh Property (\$1,825,200), Chester Drive Property (\$317,955) and Rooney Property (\$1,638,780). The full amount of these bond(s) shall not be fully released until this office has determined, in writing, that all required performance standards have been met. You shall submit a draft performance bond(s) to this office for review and approval prior to the start of any construction activities in waters of the U.S. (Cordova Hills site, off-site infrastructure area, or Chester Drive site). In addition, you shall provide proof of the posting of the performance bond(s) to this office prior to the initiation of any construction activities in waters of the U.S. authorized by this permit on the Cordova Hills or backbone infrastructure area.

(1) If at any time during the construction or monitoring period of the compensatory mitigation required in Special Conditions 2(a)(3) through 2(a)(5) it is determined by this office that the success of mitigation construction or performance

standards outlined in the approved mitigation plans are not met, this office will determine if you shall:

(a) Provide to this office for review and written approval, a remediation plan to ensure that the mitigation creation meets the performance criteria;

(b) Provide to this office for review and written approval, an alternative compensatory mitigation plan to compensate for the direct and indirect effects to waters of the U.S. authorized by this permit; or

(c) Utilize the performance bond funds to conduct alternative compensatory mitigation at the same or alternate location approved in writing by this office.

(2) This office may authorize the release of portions of the performance bond individually for the Shehadeh or Rooney sites under the following circumstances:

(a) If this office determines in writing that all compensatory mitigation construction activities have been successfully completed for the Shehadeh or Rooney site, 25% of the performance bond amount for the specific site(s) meeting this criterion site will be released.

(b) If, following year 3 of the performance monitoring, this office determines in writing that 80% of the established and rehabilitated vernal pool acres or total number of vernal pools for the Shehadeh or Rooney site have met the interim performance standards, 15% of performance bond amount for the specific site(s) meeting this criterion will be released.

(c) If, following year 5 of the performance monitoring, this office determines in writing that a minimum of 90% of the established and rehabilitated vernal pool acres or total number of vernal pools for the Shehadeh or Rooney site have met the interim performance standards, and a minimum of 50% of the established and rehabilitated vernal pool acres or total number of vernal pools for that site have met h the final performance standards, 25% of the performance bond amount for the specific site(s) meeting this criterion will be released.

(d) If, after the final year of the monitoring period, this office determines in writing that the final performance standards have been met for 100% of the vernal pools on the Shehadeh or Rooney site, the remainder of the performance bond amount for the specific site(s) meeting this criterion will be released.

(3) This office may authorize the release of portions of this financial guarantee individually for the Chester Drive site in accordance with the following:

(a) If this office determines in writing that all mitigation construction activities have been successfully completed, 25% of the performance bond amount for that site will be released.

(b) If, following year 3 of the performance monitoring, this office determines in writing that the re-established and rehabilitated vernal pools have met the interim performance standards, 15% of the performance bond amount for that site will be released.

(c) If, following year 5 of the performance monitoring, this office determines in writing that the re-established and rehabilitated vernal pools have met the interim and final performance standards, 25% of the performance bond amount for that site will be released.

(d) If, after the final year of the monitoring period, this office determines in writing that the final performance standards have been met, the remainder of the performance bond amount for that site will be released.

Rationale: *This special condition is necessary to ensure a high level of confidence that the compensatory mitigation will be successfully completed (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332).*

f. You shall establish and maintain, in perpetuity, 602 acres of on-site and 319.77 acres of off-site preserves containing 121.37 acres of preserved, established, re-established, and re-habilitated waters of the U.S., as identified in Special Condition 6(a) through 6(d). The Cordova Hills and Shehadeh preserves shall be established prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or backbone infrastructure area. The Chester Drive and Rooney preserves shall be established within 60 days following completion of construction of the compensatory mitigation required in Special Condition 2(a)(4) and 2(a)(5). The purpose of these preserves is to ensure that functions of the aquatic environment are protected.

(1) 602 acres of preserve on the Cordova Hills site, containing 54.81 acres of waters of the U.S. The waters of the U.S. to be preserved consist of: 33.50 acres of preserved vernal pools required as compensatory mitigation in Special Condition 2(a)(1), 2.19 acres of seasonal wetlands, 6.64 acres of seasonal wetland swales, 11.47 acres of intermittent drainages, 0.84 acre of stock pond, and 0.17 acre of creek. The required preserves are identified in the approved January 2017, *Final Operations and Management Plan, Cordova Hills Open Space Preserve* (Cordova Hills OMP), by ECORP Consulting, Inc and the enclosed September 27, 2016, *Cordova Hills Modified Proposed Action*, drawing, prepared by ECORP Consulting, Inc.

(2) 160 acres of preserve on the Shehadeh Property, containing 31.47 acres of waters of the U.S. The waters of the U.S. to be preserved consist of: 15.23

acres of established vernal pools and 2.68 acres of preserved vernal pools required as compensatory mitigation in Special Condition 2(a)(2) and 2(a)(3), 1.93 acres of seasonal wetlands, 3.99 acres of seasonal wetland swales, 0.83 acres of intermittent drainage (Frye Creek), and 6.80 acres of perennial drainage (Laguna Creek). The required preserves are identified in the approved January 18, 2017, *SPVPP Management Plan, Shehadeh Property Addendum, Final Operations and Management Plan* (Shehadeh OMP), prepared by Carol W. Witham, and the enclosed December 21, 2016, *Figure 11. Location of Created Vernal Pools at the Shehadeh Mitigation Site*, drawing, prepared by Rick Engineering Company.

(3) 16.97 acres of preserve on the Chester Drive property, containing 14.57 acres waters of the U.S. The waters of the U.S. to be preserved consist of: 1.81 acres of re-established vernal pools and 12.76 acres of rehabilitated vernal pools required as compensatory mitigation in Special Condition 2(a)(4). The required preserves are identified in the approved January 18, 2017, *SPVPP Management Plan, Chester Drive Property Addendum, Final Operations and Management Plan* (Chester Drive OMP), prepared by Carol W. Witham, and the enclosed December 15, 2015, *8263 Chester Drive Vernal Pool Creation Plan Exhibit*, drawing, prepared by Rick Engineering Company.

(4) 142.8 acres of preserve on the Rooney site, containing 20.52 acres of waters of the U.S. The waters of the U.S. to be preserved consist of: 6.75 acres of established and 1.70 acres of rehabilitated vernal pools required as compensatory mitigation in Special Condition 2(a)(5), 5.82 acres of established contingency vernal pools, 0.54 acres of existing vernal pools, 0.39 acres of seasonal wetlands, 4.97 acres of seasonal wetland swales, and 0.35 acres of ditches. The required preserves are identified in the approved January 18, 2017, *SPVPP Management Plan, Rooney Property Addendum, Final Operations and Management Plan* (Rooney OMP), prepared by Carol W. Witham, and the enclosed December 20, 2016, *Figure X. Proposed Cordova Hills Mitigation (Rooney Property Vernal Pool Creation and Restoration)* drawing, prepared by ECORP Consulting, Inc.

Rationale: *This special condition is necessary to ensure avoidance and minimization of impacts to waters of the U.S. (33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 332(k)(iv), 40 CFR 230).*

g. Special Condition 7: You shall fully implement and comply with the following Long-Term Management Plans (LTMP), which are hereby incorporated by reference as a condition of this permit:

(1) January 2017, *Final Operations and Management Plan, Cordova Hills Open Space Preserve* (Cordova Hills OMP), prepared by ECORP Consulting, Inc.;

(2) January 18, 2017, *SPVPP Management Plan, Shehadeh Property Addendum, Final Operations and Management Plan* (Shehadeh OMP), prepared by Carol W. Witham;

(3) January 18, 2017, *SPVPP Management Plan, Chester Drive Property Addendum, Final Operations and Management Plan* (Chester Drive OMP), prepared by Carol W. Witham; and

(4) January 18, 2017, *SPVPP Management Plan, Rooney Property Addendum, Final Operations and Management Plan* (Rooney OMP), prepared by Carol W. Witham.

Rationale: *This special condition is necessary to ensure the permittee complies with the approved LTMPs for the required preserves (33 CFR 320.4(r)(2), 33 CFR 325.4(a)(3), 33 CFR 332(k)(iv)).*

h. Special Condition 8: You shall place all preserved areas required in Special Condition 6 under a permanent conservation easement(s), and designate Sacramento Valley Conservancy as the conservation easement(s) holder. You shall record the permanent conservation easement(s) maintaining all preservation and compensatory mitigation areas identified in Special Conditions 2(a) and 6 as wetland preserve and/or wildlife habitat in perpetuity. For the Cordova Hills and Shehadeh preserves, you shall record the conservation easement(s) prior to the initiation of construction activities authorized by this permit on the Cordova Hills site, off-site infrastructure area or Chester Drive preserve. For the Chester Drive and Rooney preserves, you shall record the conservation easement(s) within 60 days following completion of construction of the compensatory mitigation required in Special Conditions 2(a)(4) and 2(a)(5). You shall submit draft conservation easement(s) to this office for review and approval prior to recordation. In addition, you shall provide copies of the recorded conservation easement(s) to this office within 30 days of recordation. If any modifications to the approved conservation easement(s) are proposed, you shall submit the proposed modifications to this office for review and approval prior to recordation. In addition, you shall:

(1) Place established, re-established, rehabilitated, and preserved waters of the U.S., and any required upland buffers preserved as required in Special Condition 6 into a separate "preserve" parcel(s) prior to initiation of construction activities within waters of the U.S. Permanent legal protection shall be recorded for all preserve parcels as required by Special Condition 8, following approval of the legal instrument by this office.

(2) Not construct any roads, utility lines, outfalls, trails, benches, firebreaks or other structure, and shall not conduct any grading, mowing, grazing, planting, discing, pesticide use, burning, or other activities within the preservation areas without specific, advance written approval from this office, unless authorized by this permit or identified in the final LTMPs identified in Special Condition 7(a), conservation easement(s), or other plans approved by this office. You shall not construct any outfalls that flow toward the preserve without prior approval of this

office. If approved, outfalls shall be designed such that they do not contribute to erosion of upland areas or stream channels within the preserve.

(3) Install fencing and appropriate signage around the entire outer boundary of the Cordova Hills, Shehadeh, and Rooney preserves, and along the western and southern boundaries of the Chester Drive preserve. You shall install fencing and signage around the Cordova Hills preserves in accordance with the phasing plan described in Section 8.1.2 of the LTMP identified in Special Condition 7(a)(1). You shall install fencing and signage around the Shehadeh preserve prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site, off-site infrastructure area or Chester Drive preserve. You shall install fencing and signage around the Chester Drive and Rooney preserves within 60 days following completion of construction of the compensatory mitigation identified in Special Condition 2(a)(4) and 2(a)(5)., You shall ensure that all fencing surrounding preserved areas allows unrestricted visibility of these areas to discourage vandalism, destruction or disturbance, as well as enable wildlife passage. Examples of appropriate fencing for the Cordova Hills preserve includes post-and-cable, wrought iron or similar type. Examples of appropriate fencing for the Shehadeh, Chester Drive or Rooney preserves includes barbed wire, post-and-cable, wrought iron, chain link, or similar type. You shall place signage at all access points into preserved areas and ensure signage contains the Corps identification number (SPK-2004-00116), contact information for the preserve manager, and a statement that the site is a wetland preserve.

Rationale: *This special condition is necessary to ensure protection of the establishment, re-establishment, rehabilitation, and preservations areas required as compensatory mitigation and ensure avoidance and minimization of effects to waters of the U.S. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332, 40 CFR 230).*

i. Special Condition 9: You shall implement the following financial assurance measures to ensure long-term viability of the preservation areas required in Special Condition 6:

(1) Establish an endowment fund(s) to provide for long-term management of the on-site and off-site preserves required in Special Conditions 6. You shall:

(a) Establish a minimum endowment amount of \$3,143,802 for the Cordova Hills preserve prior to initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site or off-site infrastructure area.

(b) Establish a minimum endowment amount of \$697,877 for the Shehadeh preserve. You may fund this amount in phases, consisting of depositing of a minimum of \$174,469 into the endowment fund(s) each year in monitoring years 2 through 5. The endowment shall be fully funded prior to the beginning of monitoring year 5 for the Shehadeh preserve. The entirety of the endowment shall be fully

funded for a minimum of 3 years prior to the commencement of long-term management of the preserve.

(c) Establish a minimum endowment amount of \$77,542 for the Chester Drive preserve. You may fund this amount in phases, consisting of depositing a minimum of \$19,385 into the endowment fund(s) each year in monitoring years 2 through 5. The endowment shall be fully funded prior to the beginning of monitoring year 5 for the Chester Drive preserve. The entirety of the endowment shall be fully funded for a minimum of 3 years prior to the commencement of long-term management of the preserve.

(d) Establish a minimum endowment amount of \$774,140 for the Rooney preserve. You may fund this amount in phases, consisting of depositing a minimum of \$193,535 into the endowment fund(s) each year in monitoring years 2 through 5. The endowment shall be fully funded prior to the beginning of monitoring year 5 for the Rooney preserve. The entirety of the endowment shall be fully funded for a minimum of 3 years prior to the commencement of long-term management of the preserve.

(2) For each year the endowment amounts required in Special Conditions 9(a)(2) through 9(a)(4) for the Shehadeh, Chester Drive, and Rooney preserves are not fully funded, the remaining endowment balance amount shall be increased (but not decreased) to account for inflation. The adjustment in the endowment amount shall be made before April 1 of each year, and be based upon the change in the United States Consumer Price Index by comparing the All Urban Consumers, published by the California Department of Industrial Relations (DIR), Division of Labor Statistics and Research published in March of the year to be adjusted with the index published in March of the year in which the first endowment deposit was made. The Endowment Amount shall be increased by the percent change in the CPI and the product shall be the Endowment Amount for the Adjustment Year. If the percentage change in the CPI is less than or equal to zero for any Adjustment Year, then no adjustment will be made for that year. You shall submit a copy of the receipt for each endowment deposit within 30 calendar days of such deposit.

(3) The endowment funds required in Special Condition 9(a) shall be governed by an investment policy statement that is designed, over long periods of time, to generate investment returns sufficient to increase in value to keep pace with inflation and pay the costs of long-term management, net of any financial investment and administrative fees. The endowment funds shall be used in funding perpetual management, maintenance, monitoring, and other activities as required by the final LTMPs identified in Special Condition 7(a). If either (1) the value of the endowments required in Special Condition 9(a) decrease to levels that may threaten their continued existence as a source of perpetual funding for long-term management, or (2) if long-term management expenses exceed those estimated in the endowment fund analysis and schedule identified in the final LTMPs identified in Special Condition 7(a), you shall provide a plan addressing modifications to the long-term

management activities or endowment deposits to protect the long-term viability of the Endowment Amount. This plan must be reviewed and approved, in writing, by this office.

(4) You shall ensure disbursements from the endowment fund earnings beyond those necessary to provide for growth of the endowment fund commensurate with inflation are made available by the endowment holder to the property owner to fund annual long-term management of the preserves as anticipated in the LTMPs identified in Special Condition 7(a) and estimate of costs identified in the Endowment Agreement.

Rationale: *This special condition is necessary to ensure the adequate funding to manage the preserve areas in perpetuity (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332, 40 CFR 230).*

j. Special Condition 10: You shall designate Sacramento Valley Conservancy to function as preserve manager for the preserves required in Special Condition 6. Long-term management of the Cordova Hills preserve shall commence prior to activities in waters of the U.S. authorized under this permit. Long-term management of the Shehadeh, Chester Drive, and Rooney preserves shall commence upon a written verification by this office that the required compensatory mitigation identified in Special Conditions 2(a)(3) through 2(a)(5) is fulfilled, as identified in Special Condition 3(b). You shall obtain written approval from this office for any proposals to change in the preserve manager.

Rationale: *This special condition is necessary to ensure protection of the establishment, re-establishment, rehabilitation, and preservations areas required as compensatory mitigation and ensure avoidance and minimization of effects to waters of the U.S. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332, 40 CFR 230).*

k. Special Condition 11: You shall ensure the conservation easements required by Special Condition 6 contain language stating that (a) the Grantee shall not assign its rights or obligations under the required conservation easement except to an organization/individual qualified to hold such interests under the applicable laws and committed to holding this easement exclusively for conservation purposes; and, (b) this office shall be notified in writing of any intention to reassign the conservation easement to a new grantee and shall approve the selection of the grantee; and, (c) you shall provide a copy of the new grantee's written acceptance of the assignment to this office. In the event the conservation easement is assigned, you shall ensure the conservation easement is re-recorded and indexed in the same manner as any other instrument affecting title to real property. You shall provide a copy of the newly recorded conservation easement to this office within 60 days of recordation.

Rationale: *This special condition is necessary to ensure protection of the establishment, re-establishment, rehabilitation, and preservation areas required as*

compensatory for the unavoidable losses of waters of the U.S., and to avoid and minimize adverse effects. (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3); 33 CFR 332).

I. Special Condition 12: In addition to the requirements of General Condition 4: (a) following a written determination by this office of successful completion of the compensatory mitigation required in Special Condition 2(a) (as identified in Special Condition 3); (b) following completion of construction activities in waters of the U.S. authorized by this permit; and (c) prior to initiation of long-term management of the preserves required in Special Condition 6(b) through 6(d), you shall obtain the signature of the entity responsible for long-term management of the preserves required in Special Condition 6 in the space provided below, and forward a copy of the permit to this office to validate the transfer of this authorization.

Rationale: *This special condition is necessary to ensure the permit is transferred to the appropriate entity responsible for long-term management of the establishment, re-establishment, rehabilitation, and preserve areas (33 CFR 320.4(r)(1); 33 CFR 325.4(a)(3)).*

m. Special Condition 13: You shall ensure that trenching activities in waters of the U.S. associated with the installation of utility lines do not result in the draining of any water of the U.S. required to be preserved in Special Condition 6, including wetlands. This may be accomplished through the use of clay blocks, bentonite, or other suitable material (as approved by this office) to seal the trench.

Rationale: *This special condition is necessary to ensure minimization of effects to avoided and preserved waters of the U.S. due to trenching for the installation of utility lines areas (33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3), 33 CFR 332, 40 CFR 230).*

n. Special Condition 14: Prior to initiation of construction activities within waters of the U.S. on the Cordova Hills site or off-site infrastructure area authorized by this permit, and prior to initiation of construction of compensatory mitigation on the Chester Drive and Rooney preserves required in Special Condition 2(a)(4) and 2(a)(5), you shall install and maintain construction best management practices (BMPs) within 50-feet of all waters of the U.S. to be avoided. Methods shall include the use of appropriate measures to intercept and capture sediment prior to entering waters of the U.S., as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All BMPs shall be in place prior to initiation of any construction activities for that phase and shall remain until construction activities are completed. You shall maintain all BMPs and erosion control measures until all soils are stabilized. You shall submit a description of and photo-documentation of your BMPs to our office prior to the initiation of construction activities in waters of the U.S. authorized by this permit on the Cordova Hills site, off-site infrastructure area, or Chester Drive preserve.

Rationale: *This condition is necessary to minimize adverse effects to avoided waters of the U.S., including effects to water quality from construction activities to the maximum extent practicable (33 CFR 320.3(a), 33 CFR 320.4(d), 33 CFR 325.4(a)(3)).*

o. Special Condition 15: This Corps permit does not authorize you to take an endangered species, in particular vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), and Sacramento Orcutt grass (*Orcuttia viscida*) or designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (e.g., an Endangered Species Act Section 10 permit, or a Biological Opinion under Endangered Species Act Section 7, with "incidental take" provisions with which you must comply). The enclosed Fish and Wildlife Service Biological Opinion (Number 08ESMF00-2016-F-2190, dated December 8, 2016), contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the Biological Opinion. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with "incidental take" of the attached Biological Opinion, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the Biological Opinion, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The U.S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its/their Biological Opinion, and with the Endangered Species Act. You must comply with all conditions of this Biological Opinion, including those ascribed to the Corps.

Rationale: *This condition is necessary to ensure compliance with Section 7 of the Endangered Species Act (16 USC 1531 et seq, 50 CFR 402, 33 CFR 320.4(j)(4), 33 CFR 325.2(b)(5), 33 CFR 325.4(a)(1)).*

p. Special Condition 16: You shall employ a qualified archeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archeology (48 FR 44738-39), to monitor all initial ground-disturbing activities, including excavation, grading, etc. on the Cordova Hills site. The Monitor shall be present during initial ground-disturbing activities and shall examine sidewalls and dirt piles as appropriate. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit and/or required by Special Condition 2, you shall immediately cease activities in waters of the U.S. and notify this office of what you have found. This office will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Rationale: *Due to the potential for buried cultural resources in the project area, this conditions is necessary to ensure compliance with Section 106 of the National*

Historic Preservation Act (16 USC 470, 33 CFR 320.3(g); 33 CFR 325.2(b)(3); 33 CFR 325, Appendix C; 36 CFR 800).

q. Special Condition 17: Prior to initiating construction activities in waters of the U.S. and prior to initiating construction of compensatory mitigation for the Chester Drive and Rooney preserves required in Special Condition 2, you shall notify the Corps in writing of the anticipated start date for the work. No later than 10 calendar days following completion of construction activities in waters of the U.S. and completion of construction of compensatory mitigation for the Chester Drive and Rooney preserves, you shall notify the Corps in writing that compensatory mitigation construction activities have been completed.”

Rationale: *This condition is necessary to assist the Corps in scheduling compliance inspections to ensure compliance with the permit and applicable conditions (33 CFR 325.4; 33 CFR 326).*

r. Special Condition 18: You are responsible for all work authorized herein and ensuring that all contractors and workers are made aware of and adhere to the terms and conditions of this permit authorization. You shall ensure that a hard copy of the permit and associated drawings are available for quick reference at the project site until all construction activities are completed.

Rationale: *This condition is necessary to assist the Corps in scheduling compliance inspections to ensure compliance with the permit and applicable conditions (33 CFR 325.4, 33 CFR 326).*

s. Special Condition 19: Prior to initiation of construction activities within waters of the U.S. on the Cordova Hills site or off-site infrastructure area authorized by this permit, and prior to initiation of construction of compensatory mitigation on the Chester Drive and Rooney preserves required in Special Condition 2(a)(4) and 2(a)(5), you shall clearly identify the limits of construction and the limits of disposal area on the Shehadeh preserve within 50-feet of avoided waters of the U.S. In addition, prior to initiation of construction of the compensatory mitigation in Special Condition 2(a)(4) and 2(a)(5), you shall clearly identify the limits of construction within 50-feet of existing waters of the U.S. on the Chester Drive and Rooney properties, and the limits of soil disposal on the Shehadeh site with highly visible markers. The markers shall be of a material, and placed in a manner, that prevents construction equipment from entering any waters of the U.S. required to be preserved in Special Condition 6. You shall maintain such identification properly until construction has been completed and soils have been stabilized. You are prohibited from undertaking any activity (e.g. equipment usage or materials storage) that affects waters of the U.S. outside of the permit limits.

Rationale: *This condition is necessary to ensure the construction activities do not occur outside of the project area, which could cause adverse effects to the aquatic ecosystem (33 CFR 325.4(a)(3)).*

t. Special Condition 20: You shall use only clean and non-toxic fill material for this action. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

Rationale: *This condition is necessary to ensure that contaminated material is not placed within waters of the U.S. (33 CFR 325.4(a)(3), 40 CFR 230).*

u. Special Condition 21: All crossings of creeks, seasonal wetland swales, perennial, intermittent or ephemeral drainages, where the upstream or downstream portions of the feature are intended to be avoided, shall be conducted when the project area is naturally dewatered, or is dewatered in accordance with a dewatering plan specifically approved by this office in writing. No work shall be conducted in flowing waters.

Rationale: *This condition is necessary to minimize downstream effects to the aquatic environment from suspended sediments and turbidity to the maximum extent practicable. (33 CFR 320.3(a), 33 CFR 320.4(d), 33 CFR 325.4(a)(3), 40 CFR 230).*

v. Special Condition 22: Within 60 days following completion of the activities authorized by this permit, or at the expiration of the construction window of this permit, whichever occurs first, you shall submit as-built drawings and a description of the work conducted on the site and the compensatory mitigation areas required under Special Condition 2(a). The drawings shall include the following:

a. The Department of the Army Permit number.

b. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings. The drawing should show all "earth disturbance," impacts to waters of the U.S., structures, and the boundaries of any on-site and/or off-site mitigation or avoidance areas. The drawings shall contain, at a minimum, 1-foot topographic contours of the entire site.

c. As-built drawings of the establishment, re-establishment and rehabilitated vernal pools on the Chester Drive and Rooney properties with an overlay identifying any deviations from the approved Final Chester Drive MMP and Rooney MMP identified in Special Conditions 2(a)(4) and 2(a)(5). The drawings shall also contain, at a minimum, 1-foot topographic contours of the entire site.

d. Ground photographs of the completed work. The camera positions and view-angles of the ground photographs shall be identified on a map, aerial photograph, or plan-view drawing.

e. Aerial photographs of the completed compensatory mitigation on the Chester Drive and Rooney property.

f. A description and list of all deviations between the work as authorized by this permit and the work as constructed and between the compensatory mitigation as required by this permit and the compensatory mitigation as constructed. Clearly indicate on the as-built drawings the location of any deviations that have been listed.

Rationale: *This condition is necessary to ensure compliance with the permit and applicable conditions and to ensure that the proposed work and final restoration work has been conducted in accordance with the permit and all applicable conditions. (33 USC 1344(a), 33 USC 401 et. seq., 33 CFR 320.4(r)(1), 33 CFR 325.4(a)(3); 33 CFR 326).*

w. Special Condition 23: You shall comply with all terms and condition of the attached June 29, 2016, Section 401 Water Quality Certification.

Rationale: *This condition is necessary to ensure compliance with Section 401 of the Clean Water Act. Although General Condition 5 of the Standard Permit requires compliance with the Section 401 Water Quality Certification, the applicant has requested compliance with the WQC also be added as a special condition. (33 USC 1341; 33 CFR 320.3; 33 CFR 320.4(d); 33 CFR 325.2(b)(1); 33 CFR 325.4(a)(1).*

IX. Public Interest Review

a. The relative extent of the public and private need for the proposed work has been considered: The proposed actions are intended to meet a local demand for mixed-use development. As such, local approval indicates a public need for the action. The modified proposed action would provide a residential and commercial development for the public within the target market, as well as higher educational opportunities.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated: The Corps has determined that there are no practicable alternate locations that would accomplish the purpose of the proposed work. The Corps has also determined that there are no practicable alternative methods to accomplish the purpose of the proposed work that would have fewer direct or indirect effects than the Current Modified Proposed Action. Alternative 8, the Current Modified Proposed Action, represents the LEDPA, as described in Section III.d.

c. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited has been reviewed: The Current Modified Proposed Action would result in the placement of fill material into 31.72 acres of waters of the

U.S. for development on the Cordova Hills site, 0.25 acres of waters of the U.S. for off-site infrastructure, and 13.73 acres of waters of the U.S. on the Chester Drive site for vernal pool rehabilitation required as compensatory mitigation. Permanent adverse effects to waters of the U.S. for development of the Cordova Hills site and off-site infrastructure would result in permanent adverse effects and loss of waters of the U.S. The placement of fill material into 13.73 acres of vernal pools on the Chester Drive would result in a net increase in aquatic resource functions and services, providing a permanent beneficial effect to the aquatic ecosystem. Additional indirect adverse effects may occur to the preserved waters of the U.S., which would be minimized due to the buffers on avoided aquatic resources as well as the use of BMPs during construction. The loss of waters of the U.S for the modified proposed action would cause a permanent detrimental effect to the functions and services of the aquatic resources. The loss of waters of the U.S as a result of the Current Modified Proposed Action would be offset by the required compensatory mitigation. The modified proposed action would result in a permanent beneficial effect to economics for Federal, state, and local agencies and the applicant, as well as a beneficial effect to nearby residents due to the increase in recreation and commercial opportunities. Additional permanent and temporary adverse and beneficial effects would occur to other resource areas, as identified in Chapter 3 of the Draft EIS.

X. Findings

a. The evaluation of the Current Modified Proposed Action and alternatives was done in accordance with all applicable laws, executive orders, regulations, and agency regulations. The EIS and supporting documents are adequate and contain sufficient information to make a reasoned permit decision.

b. The selected alternative is Alternative 8, the Current Modified Proposed Action, with appropriate and practicable mitigation measures to minimize environmental harm and potential adverse impacts of the discharges on the aquatic ecosystem and the human environment. The Current Modified Proposed Action, as mitigated by these conditions, is considered the environmentally preferred alternative under NEPA.

c. The discharge complies with the Section 404(b)(1) guidelines, and the Current Modified Proposed Action is considered the least environmentally damaging practicable alternative, with the inclusion of appropriate and practicable general and special conditions in the permit to minimize pollution or adverse effects to the aquatic ecosystem.

d. Issuance of a Department of the Army permit, with the inclusion of special conditions on the permit, as prescribed by regulations published in 33 CFR Parts 320 to 330, and 40 CFR Part 320 is not contrary to the public interest.

e. Preservation as compensatory mitigation for direct and indirect effects to vernal pools within the Mather Core Recovery Area, in conjunction with establishment, re-establishment, and preservation is appropriate because:

(1) Vernal pools provide important functions within the watershed, including, but not limited to: habitat for federally listed threatened and/or endangered species; water filtration; and water storage;

(2) Vernal pools within the Mather Core Recovery Area contribute significantly to the ecological sustainability of the watershed, and assist in recovery of vernal pool fairy shrimp and vernal pool tadpole shrimp;

(3) Vernal pools within the Mather Core Recovery Area are under continued threat of destruction or adverse modification, as this area has been designated for development by Sacramento County and the City of Rancho Cordova; and

(4) The preservation areas would be permanently protected through conservation easements.

f. The compensatory mitigation identified in Section VIII was determined using the *South Pacific Division Mitigation Ratio Setting Checklist*, and is sufficient to ensure no net loss of aquatic resource functions and services for effects to waters of the U.S. associated with the proposed action. The required compensatory mitigation for the unavoidable loss of vernal pools in the Mather Core Recovery Area deviates from the order of options presented in 33 CFR 332.3(b)(2) – (6), as there are not sufficient mitigation bank or in-lieu fee credits to compensate for the loss of vernal pools in the Mather Core Recovery Area. Therefore the required compensatory mitigation for the direct and indirect effects to vernal pools is permittee responsible establishment, re-establishment, rehabilitation and preservation. The required compensatory mitigation for direct and indirect effects to seasonal wetlands, seasonal wetland swales, intermittent drainages, stock ponds, seeps, and ditches waters of the U.S. follows the order of options presented in 33 CFR 332.3(b)(2) – (6), and therefore the required compensatory mitigation for these waters of the U.S. is the purchase of mitigation bank credits.

XI. Appendices

Appendix A: Federal Register Notice of Availability and Public Notice for Final EIS

Appendix B: Comments on the Final EIS

Appendix C: Drawings

Appendix D: South Pacific Division Mitigation Ratio Setting Checklist

Appendix E: U.S. Fish and Wildlife Service Biological Opinion and Central Valley Regional Water Quality Control Board Section 401 Water Quality Certification

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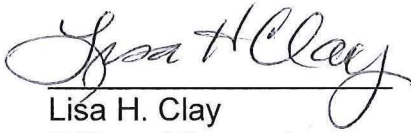
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