

Minutes
Inland Waterways Users Board
Meeting No. 92
Springfield Hilton, Woodlawn/Fairfax Rooms
6550 Loisdale Road, Springfield, Virginia 22150

September 12, 2019

The following proceedings are of the 92nd Meeting of the Inland Waterways Users Board held on the 12th day of September 2019, commencing at 8:00 a.m. at the Springfield Hilton, Woodlawn/Fairfax Rooms, located at 6550 Loisdale Road, Springfield, Virginia 22150. Mr. Robert J. Innis, Chairman of the Inland Waterways Users Board presiding. Inland Waterways Users Board (Board) members present at the meeting included the following:

MR. DAVID A. EARL, Marathon Petroleum Company.

MR. ROBERT J. INNIS, LafargeHolcim, Inc.

MR. DAMON S. JUDD, Marquette Transportation Company.

MR. MICHAEL J. MONAHAN, Campbell Transportation Company.

MR. W. SPENCER MURPHY, Canal Barge Company, Inc.

MR. DENNIS OAKLEY, Bruce Oakley, Inc.

MR. TIMOTHY C. POWER, SCF Marine, Inc.

MR. ROBERT D. RICH, Shaver Transportation Company.

MR. JEFF WEBB, Cargill, Inc.

Board member MR. CHARLES M. "MATT" RICKETTS, of Crouse Corporation, was unable to attend the meeting. MR. JAMES "JAY" RUBLE, Crouse Corporation, attended the Board meeting on behalf of Mr. Ricketts.

Board member MR. MIKE FEWELL, of Dow Chemical Company, was unable to attend the meeting, and Dow did not send a representative on their behalf.

Former Board member MR. RICHARD R. CALHOUN, formerly of Cargill, Inc. and now consulting for Marquette Transportation Company, also attending the meeting.

Also present at the meeting were the following individuals serving as observers of the activities of the Inland Waterways Users Board, designated by their respective Federal agencies as representatives:

MR. DAVID LEACH, Deputy Assistant Secretary of the Army for Project Planning and Review, Office of the Assistant Secretary of the Army for Civil Works, Headquarters, Department of the Army, Washington, D.C.

MR. RICHARD BALZANO, Deputy Maritime Administrator, U.S. Department of Transportation (DOT), Maritime Administration (MARAD), Washington, D.C.

REAR ADMIRAL SHEPARD M. SMITH, Director, Office of Coast Survey, National Hydrographer, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, Silver Spring, MD.

DR. KELLY P. NELSON, Senior Economist, Agricultural Marketing Service, U.S. Department of Agriculture (USDA), Washington, D.C.

Official representatives of the Federal government responsible for the conduct of the meeting and providing administrative support to the Inland Waterways Users Board from the U.S. Army Corps of Engineers were as follows:

MAJOR GENERAL (MG) SCOTT A. SPELLMON, Users Board Executive Director and Deputy Commanding General for Civil and Emergency Operations, Headquarters, U.S. Army Corps of Engineers, Washington, D.C.

MR. THOMAS P. SMITH, Chief of Operations and Regulatory Division, Headquarters, U.S. Army Corps of Engineers, Washington, D.C.

MR. MARK R. POINTON, Executive Secretary and Designated Federal Officer (DFO), Inland Waterways Users Board, U.S. Army Corps of Engineers, Institute for Water Resources, Alexandria, Virginia.

DR. FORREST B. VANDERBILT, MR. STEVEN B. RILEY, and MS. ALEXANDRA SCHAFER, Alternate Designated Federal Officers (ADFO), Inland Waterways Users Board, U.S. Army Corps of Engineers, Institute for Water Resources, Alexandria, Virginia.

MR. DAVID A. FRANTZ, Inland Navigation Program Manager, Navigation Operations, Headquarters, U.S. Army Corps of Engineers, Washington, D.C.

Program speakers in scheduled order of appearance were as follows:

Mr. Mark R. Pointon, U.S. Army Corps of Engineers, Institute for Water Resources, Inland Waterways Users Board Designated Federal Officer (DFO) and Executive Secretary.

Major General (MG) Scott A. Spellmon, Corps of Engineers, Deputy Commanding General for Civil and Emergency Operations.

Mr. Robert J. Innis, Chairman, Inland Waterways Users Board, Director, Transportation Operations, LafargeHolcim, Inc.

Mr. Kyle M. Liske, U.S. Department of Agriculture, Senior Advisor, for the USDA Report on the Importance of Inland Waterways to U.S. Agriculture.

Mr. Thomas P. Smith, Corps of Engineers, Headquarters, Chief, Operations and Regulatory Division.

Mr. Paul D. Clouse, Corps of Engineers, Headquarters Navigation Operations Branch, Deputy Chief.

Mr. Mark R. Pointon (for HQ Programs Integration Division (PID)), for the Status of the Inland Waterways Trust Fund.

Mr. David A. Frantz, Corps of Engineers, Headquarters Navigation Operations Branch, Inland Navigation Program Manager.

Mr. Sean F. Dawson, Corps of Engineers, Baltimore District, Value Engineering Officer.

Mr. Stephen R. Fritz, U.S. Army Corps of Engineers, Pittsburgh District, Program Manager for Mega Projects, for the Upper Ohio Navigation Study and Monongahela River Locks and Dams 2-3-4.

Mr. Don B. Getty, U.S. Army Corps of Engineers, Nashville District, Project Manager, for Kentucky Lock Addition and Chickamauga Lock.

Mr. Stephen G. Durrett, U.S. Army Corps of Engineers, Great Lakes and Ohio River Division (LRD), Regional Business Director, for Olmsted Locks and Dam.

There were two public comments offered during the public comment period of the meeting; there were no written public comments submitted for the record prior to or during the meeting.

PROCEEDINGS

MR. MARK POINTON: Can we take our seats, please. So, apparently, we should hold meetings in the Washington, D.C. area more often because there is a pretty big crowd for what we typically get, so anybody who is not a normal participant or attendee at these meetings, welcome.

My name is Mark Pointon. I'm the Designated Federal Officer and the Executive Secretary for the Inland Waterways Users Board. I want to welcome you to the 92nd Meeting of the Inland Waterways Users Board here in beautiful Springfield, Virginia. We have actually had a meeting here before across the intersection over at the Waterford in 2010, I believe.

I'd like to congratulate the new Board members and those members that were reappointed. So we have a whole new Board of 11 members, five reappointments and six new members. I think everyone is here but one. And we have Mr. Ruble from Crouse here for Matt Ricketts, who couldn't join us today.

Before we start the meeting, I'm obligated to read for the record that the Users Board was created pursuant to Section 302 in the Water Resources Development Act of 1986. It provides the Secretary of the Army and the Congress with recommendations on funding levels and priorities for modernization of the inland waterways system. The Board is subject to the rules and regulations of the Federal Advisory Committee Act of 1972, as amended. This is a Sunshine in Government Act meeting, and as such, it's open to the public.

The U.S. Army Corps of Engineers (Corps or USACE) is the sponsor of the Board and provides the Executive Director, Major General Spellmon, myself as the DFO and all the normal support activities for the Board.

Currently, we have no public comments submitted for the record, and no one has indicated they wish to make a public comment. There is a public comment period at the end of the meeting that will be available. Anybody who feels they want to make a public comment, please see me at the break or let me know what you want to do.

The proceedings are being recorded and a transcript will be available after the meeting. At this point, I'm going to turn the mic over to General Spellmon so he can conduct the Oath of Office. Sir?

MAJOR GENERAL SCOTT SPELLMON: Okay. Thanks, Mark. Before we do the oath, just a few opening comments from me.

First of all, thanks for being here. I think I had the opportunity to meet all the new members last night at dinner, but for those of you in attendance today who I have not met, again, my name is Major General Scott Spellmon. I'm the Army Corps of Engineers Deputy Commanding General for Civil Works and Emergency Operations.

In my role, I get to preside over five boards like this one, and I will tell you, these are incredibly valuable for me personally, but also for our team. And I say that because we get to take back to our work that we do, when budgeting and programming and then taking our

argument to the Chief of Engineers and then eventually to the Assistant Secretary and up the administration, the valuable input that we receive from industry. And it is incredibly valuable to us. So thank you for that.

And it is particularly valuable at this point in time, with the record appropriations that we have seen in the Civil Works program over the last two years and we feel very optimistic as we get ready heading in to Fiscal Year 2020.

So a number of topics that we're going to talk about today. We're going to get some updates on the existing Inland Waterways Trust Fund projects. We'll go through that. The Board gave us some homework assignments at our last Board meeting, Meeting No. 91. We're going to report out on that.

And I think one of the most important topics for discussion today is what comes next. What are the next set of investments that we need to look forward to, and we're going to tee up that discussion up with you near the end.

Before I swear in the Board, just a few introductions I want to make. First, somewhere behind me is Major General Bob Whittle. Bob? There he is. So Bob is our new Great Lakes and Ohio River Division Commander. He replaced Major General Mark Toy just here within the last few months, and so, Bob, I appreciate you being here today.

For those of you who don't know, Major General Toy moved down to take command of our Mississippi Valley Division, and then Major General Rick Kaiser, who was in command, came up to Corps Headquarters. He's another one of our deputy commanding generals in the Headquarters.

With Bob is our great Pittsburgh District Commander, Colonel Kobe Short. Kobe, you're back there as well. Thanks for coming on down today.

And then, Dave, with your permission, I just want to introduce a new member to the Assistant Secretary's team, Mr. Vance Stewart. Vance is here. Okay. So Vance is one of the Deputy Assistant Secretaries of the Army (for Civil Works), for Financial Management.

So when you hear us say things like we put our budget recommendation together and we sent to Army or we sent it up to the Assistant Secretary, that's Vance. Okay? So that's the first stop. So Vance gets that before he takes those recommendations in to Secretary James (the Honorable R.D. James), who sends his regrets that he cannot be here today. He is going to be part of an announcement later on regarding the Waters of the United States (WOTUS) rules. So this is a pretty important roll-out.

If you don't know today, we have 28 states that are implementing a 1986 rule with respect to Waters of the United States, and we have 22 that are implementing a 2015 rule. So you can imagine, if you're a district commander out there, trying to do a permit for a pipeline that crosses several states, you would be applying different rules, one from 1986 and one from 2015. So we believe we'll get the nation on one set of rules today, hopefully, and we'll go from there.

Okay. At this time, I'm going to ask the new Board members and the returning Board members to stand up and they're going to join me for the Oath of Office. We'll just do it at our seats.

So I'm going to ask everyone to raise your right hand and just repeat after me: I – and state your full name.

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- do solemnly swear --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- to support and defend --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- the Constitution of the United States –

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- against all enemies --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- foreign and domestic.

(Board members repeat.)

MAJOR GENERAL SPELLMON: And I will bear true faith --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- and allegiance to the same.

(Board members repeat.)

MAJOR GENERAL SPELLMON: I take this obligation freely --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- without any mental reservation --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- or purpose of evasion --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- in that I will well and faithfully --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- discharge the duties --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- of the office upon which --

(Board members repeat.)

MAJOR GENERAL SPELLMON: -- I am about to enter.

(Board members repeat.)

MAJOR GENERAL SPELLMON: So help me God.

(Board members repeat.)

MAJOR GENERAL SPELLMON: Thank you. Thank you. [Applause].

Okay. So what I'd like to do now is just go around to our Federal Observers that are here with us and see if they have any opening comments as well. So from NOAA (National Oceanic and Atmospheric Administration), Rear Admiral Shephard Smith.

REAR ADMIRAL SHEPARD SMITH: Thank you, General. This is my first meeting of the Inland Waterways Users Board, although I am the designated NOAA representative. I do serve with some of you as well on the Mississippi River Commission. General Whittle (Commander, USACE Great Lakes and Ohio River Division) and I just spent a week on the Corps Motor Vessel Mississippi in August and have met many of you in the context of the Lower Mississippi. But I'm excited to be here, and it made it a little bit easier that it was in D.C. for me to attend in person.

Heather Gilbert has been representing me in the last few meetings and will continue to do so when I can't make it myself.

But I'm very pleased to be here. Just as a quick introduce of my day job role, I am the Director of the Office of Coast Survey, which is the hydrographic office for U.S. waters. We share responsibility with the Army Corps in ports and waterways for surveying and information provision and then with the Navy on the other side for overseas. But we have the bulk of it for U.S. coasts.

I also serve, as I said, on the Mississippi River Commission, and I represent the United States at the International Hydrographic Organization for coordinating worldwide standards and services for shipping.

I know that Heather has briefed you on some of our improvements in services, particularly, focused on ports in a package of initiatives we're calling Precision Navigation, including higher resolution charts, real time water levels, projected water levels and currents predicted for the coming few days and other initiatives that we're excited to work with our federal partners to develop world-class ports for the United States over the course of the next few years. So I'm very happy to be here.

MAJOR GENERAL SPELLMON: Great. Thanks, Shep. Thanks to you and Heather for being here.

Okay. So joining us from the Maritime Administration is Mr. Richard Balzano. Rich, thanks for coming.

MR. RICHARD BALZANO: Press the button; there we go. Thank you for having me.

Thanks to my NOAA friend here; we're messing up the technology, but I would like to announce that I'm doing better than he is. This is my second meeting. And thank you for having me.

MARAD is the Maritime Administration. I'm the deputy. I would like to introduce Lauren Brand, who I refer to as "Her Majesty." She is the queen of ports. Everyone knows her. Her staff is wonderful, but her staff and her department are here to help you. This group of folks, you are a critical component of the national security and national economy of this nation. You get everything inland in this country, and we know it and we support it, and I'm just glad to be here and I'm glad you all Board members are stepping up to help your community.

With that said, I do have a few updates. We're noticing that a lot of the container traffic coming in to our sea ports, they're kind of overwhelmed right now. And so we're noticing an uptick of movement of containers to the Gulf and then coming up the river ways. So our marine highway program, which Lauren will step in for me because I have to leave in little bit, she can help you navigate that program and find out anything you need to know about it.

We have also been getting a lot of questions from Congress with respect to that program and how much funding we have for it. So I would not be surprised if, in the next appropriations bill, we see an uptick in funding in that program. And that program is for you-all to take advantage of by purchasing -- they're grants to help you purchase infrastructure, to help you load and unload container-on-barge-type programs. So please, that's a great program for you. Look her up. She'll talk about it maybe a little more during the break or whatever, but that's an important program for you.

The second program that you-all may have heard of is the new Port Infrastructure Development Grant Program. Now, I wasn't going to talk too much about this because, right now, inland waterways are effectively not eligible for that new program. It's a \$300 million grant program, again, a discretionary grant program. However, we have been getting a lot of questions from the members of Congress, both House and Senate, about expanding that program to include the inland waterways and also possibly increase its funding. We weren't sure whether it was going to be a one-year program. I think it has -- it is very possible to be a

program of record, and we're hoping for that because that's another critical component for this industry with infrastructure investments.

Jones Act. A lot of your folks that you work with, the shipping companies that you represent or work with, are critical parts of our Jones Act. The Jones Act is coming up on its 100th anniversary, and we have some serious anti-Jones Act agents or groups that have come together, and they're really, really trying very hard to dismantle the Jones Act. Obviously, that's not something we would like to see, so we fight and we'll continue to fight very hard.

And one thing I would like to fill you in on is that we're in the process of commissioning a study -- I'm using some year-end money that I scraped together -- to study the devastating effects of removing the Jones Act. If you notice, there's a lot of literature out there on the positives of the Jones Act, how valuable it is, what it does and what it provides for us, but what we don't have is any real independent analysis of, Hey, if we were to remove the Jones Act, much like Australia and Canada have done, this is what is going to happen, what we're going to see for job losses, what we're going to see for changes in the industry.

So that's a critical component. So if you hear about some study, work, or people asking questions, please know that it's all for the right reasons and that MARAD is behind it, so don't get nervous. If they reach out to you as an organization, please help them, because the best fight we can have is what you-all represent, which is what gets done in our nation on the waterfront.

Another grant program I'd like to mention that I'm seeing an uptick in the inland waterways is the Small Shipyard Grant Program. That program was increased from \$10 million to \$20 million last year or two years ago, and we saw a bunch of different small yards -- Paducah comes to mind -- that we awarded grant money to so that they can help with their repair facilities, the infrastructure they need to repair barges and tugs and the types of equipment that you-all use every day.

And then, finally, one of my jobs at MARAD is I have started or at least pushing towards more R&D (Research and Development) efforts in our organization. It's the one thing I think the Government has a role in helping the industry. And just recently, in August, we tested some remote operation capabilities with a company called Sea Machines from Boston. It was a joint venture that MARAD funded with Sea Machines and MSRC (Marine Spill Response Corporation). MSRC, you-all may know, they're the oil spill response folks.

You-all have oil spill response capabilities, fire, those types of emergency services on your rivers and locks and dams and things like that. This is a technology that helps to remove humans from that loop and putting them in the dangerous place. It allows them to operate the ships and the small craft standing on the bank of the river with a little belt-controlled device.

So, please, look into it. If it's something that can help your community or help your industry and where you are, reach out to us and we'll get you connected, and you can potentially use that technology.

And then, finally, my last thing, we're in the process of repossessing three mobile harbor cranes from a marine highway project or two that did not succeed. They are going to be

transferred in the next month or two to the GSA (General Services Administration). GSA will then offer them to federal agencies as items that they can take as excess government equipment. If no federal agency takes it, they will be offered to state and local municipalities.

So, can your group please put the word out? These are three cranes that cost nearly \$5 million apiece. They're about eight to ten years old, but they have very low hours, they have been barely used, and I have had surveys done on them, and they're in very good condition. So if it's something that your area needs support, it's an opportunity to get a pretty nice piece of equipment for free, effectively. You just maybe have to pay for transport.

So that's it from the Maritime Administration. Thank you very much for having me, and thank you for what you-all do, because it's critically important.

MAJOR GENERAL SPELLMON: Richard, thank you for those comments, and thanks to you and Lauren for being here as well.

Okay. From USDA (U.S. Department of Agriculture), we have Dr. Kelly Nelson.

DR. KELLY NELSON: Good morning. This is my first time here. I took over for Nick Marathon, who recently retired after 40 years of excellent, dedicated service. I will not be presenting today; that will be Kyle (Mr. Kyle Liske) from the Secretary's office, but we recently were involved in a large report on the importance of inland waterways to U.S. Agriculture and the U.S. economy, and he will be giving a presentation on that very shortly.

MAJOR GENERAL SPELLMON: Okay. Thanks, Dr. Nelson.

Okay. And in representing Secretary James today is Mr. David Leach from our Assistant Secretary's office.

MR. DAVID LEACH: Good morning. As General Spellmon said, my name is Dave Leach. I actually serve as the Deputy Assistant Secretary for Civil Works, primarily project and planning review, which deals with really the approval of projects as they go for Congressional authorization. So I kind of handle that aspect of it. And Vance handles the appropriations. So that's kind of our little split.

Having said that, we share responsibilities in the office, supporting Mr. James. As General Spellmon said, Mr. James regrets that he could not be here. He was planning on being here at this meeting, but he'll be signing the rule-making for WOTUS with the Secretary of, I believe, EPA (Environmental Protection Agency) later today. So he regrets he cannot be here.

Just a little update. What's occupying the Secretary's office right now is the budget process. Okay? We're really working – awaiting Congress to approve the FY 2020 budget. Okay? So that would be what we'd typically call the work plan, which is the additional money Congress appropriates to the Corps above the President's Budget. So that's one of the next big challenges, the FY 2020 budget, as that gets hopefully approved by Congress. We're optimistic for that.

Concurrently, we're submitting the FY 2021 budget to the Office of Management and Budget or OMB, and of course, OMB will then move that forward. So those are probably the two biggest things that are occupying our office at this time. In addition, what's coming up -- and we just got a call literally this week to initiate WRDA (Water Resources Development Act) 2020 hearings. Okay? Typically, those really don't get any traction until after the first of the year. Having said that, Congress has expressed and the committee has expressed an interest that they want to convene in mid-October to start those discussions. So that's actually positive news. Congress has been, over the last eight years -- I guess it's the last four WRDAs -- word is they have been on a two-year cycle, and we're optimistic they'll continue that this year, so that's good for the entire Civil Works program at large as well as the equities you have for inland waterways, etc.

So that's just a couple of the highlights. We're working budgets and working WRDA. So, pleasure being here. I have attended in the past, and we end up typically rotating attendance based on Mr. James' availability as well as each of us. But pleasure to be here. I look forward to the discussions.

MAJOR GENERAL SPELLMON: Thanks, David.

Okay, Mark.

MR. POINTON: Thanks, everybody. Thank you, General.

Just to remind everyone, as the Deputy Administrator found out, push to talk. It gets red up here. That means talk. It doesn't mean it's not on. And please identify yourself so we can record it for the record.

At this point, we're going to move on to opening remarks by Rob Innis, our new chairman.

CHAIRMAN ROBERT INNIS: Thanks, Mark.

Good morning and welcome to the Inland Waterways Users Board. I want to thank Major General Spellmon and Mr. David Leach from the ASA's (Assistant Secretary of the Army (Civil Works)) office for being here today. It's their involvement and partnership, the reason that we have seen strong improvements in the inland waterways system.

As the Board has expressed in the past, I'd like to personally thank Marty Hettel for his services as the former chairman. He did a great job ensuring the Board visited lock and dam projects. Even with it snowing in LaGrange, we still made that one.

He even really moved the partnership of the Corps even further, and with that, Marty, your leadership and service has been a real commendation to you. Thank you.

Looking to the future, I have a number of things that I'd like to accomplish as the chairman. First is to keep going with what Marty started, the partnership with the Corps. That's critical to how we move forward. And to ensure that we get the updated capital investment

strategy for the inland waterways system. That will be critical, especially as we talked about WRDA today.

Next is to be ready for the future, not only looking at the current projects and what we have on the books but the next projects to be slated for construction, which is going to be sooner rather than later. We're looking at finishing these projects in 2022-2023, so those will be coming up really quickly, and we want to be sure that we have the funding and that we have done the pre-engineering construction to be ready for those projects. So we have got NESP (Upper Mississippi River and Illinois Waterway Navigation and Ecosystem Sustainability Program) and other ones that we want to make sure are ready to hit that timeline.

And the other thing for me, and I probably sound like a broken record here, but it is the benefit/cost ratio. We need to reevaluate how that's done for the inland waterways system. The calculation does not work. There is not the next available mode of transportation immediately that you can see for that. That needs to be factored in on how we do the benefit/cost ratio. I think it's a critical piece to us moving forward with the successful inland waterways system. It will allow us to spend more money and get more things accomplished and keep this system, which helps the nation, move so many products and keep us effective in the world economy.

With that, I'll turn it over to any other Board members, if they have anything to add.

MR. POINTON: Let's start over here. Mike, you got anything? David? Jay, do you have any comments? No? Rob? All you new members, it's actually okay to talk. Okay? Just wanted to be clear here. All right.

Thank you, Rob.

CHAIRMAN INNIS: Thank you.

MR. POINTON: Anything else? Okay.

Next on the program, we're going to approve the minutes from the last Board meeting, Meeting No. 91, which we held in May down in New Orleans. So the transcript was sent to the Board members, and it's included in your information notebooks, Tab 2, I believe.

So can I get a motion?

MR. MICHAEL MONAHAN: This is Mike Monahan. A motion to approve.

MR. POINTON: Second? Mr. Oakley, thank you.

All in favor?

BOARD MEMBERS: Aye. (All.)

MR. POINTON: Any nays? (None.)

Thank you. The motion is approved unanimously.

Next on the program, we have a brief presentation on the USDA, the Department of Agriculture report on the importance of the inland waterways to U.S. agriculture. Mr. Kyle Liske is here from the USDA. He's the senior policy advisor to the Secretary of Agriculture.

Yep, take the podium, sir.

MR. KYLE LISKE: Thank you, sir.

Good morning. Thanks for having me here. Well, good morning. I appreciate being here. As was mentioned previously by Kelly, the USDA recently commissioned and announced the completion of an inland waterways report. This was at the direction of Secretary Perdue and done through the Agricultural Marketing Service (AMS), so definitely appreciate Kelly. And I know AMS also has Adam (Adam Sparger) and Karla (Karla Whalen) back there, so definitely appreciate all their work on this.

But a couple of weeks ago, Agriculture Secretary Sonny Perdue was out at the Mel Price (Locks and Dam) facility with Assistant Secretary (of the Army for Civil Works) James to announce this report. They toured the locks and dam there and the impressive facility they have and then to a town hall meeting with stakeholders and answered a couple of questions.

I'll just go through just a couple of slides quickly and then get to some questions. But the full report can be found on AMS's transportation website there, and it's about 156 pages or so, but here are some highlights.

This map is probably pretty familiar to you guys. This was sort of the scope of the report and what it analyzed. Mississippi River basin there. Has the rivers. And then what's important to agriculture on this is the green shades is corn and soybean production. So the darker the green, the higher production of corn and soybeans.

And then up and down the river, you have red dots, which identify the locks and dams, and the larger the dot, the bigger investment needed at this particular site.

And at the very bottom here, you have got this red line down here. That represents the dredging project of the Lower Mississippi River to 50 feet. And one of the conclusions that the report had was that that project alone would add 12 to 13 cents a bushel for corn and soybeans, so some significant findings just in that one project alone.

This next slide just has some high-level conclusions that we probably all knew already, but ultimately, the inadequate infrastructure logically flows down to a loss of competitiveness, which is highly important to America.

And further on in the presentation, I'll get to specifics in how America is trying to compete with Brazil and the importance of the waterways in that competition.

But really, the main driving factor of the idea behind this report was to quantify what we already knew. We really already knew that the waterways system was important to agriculture,

but what did that mean in terms of dollars? And so this slide really represents the meat and potatoes of the presentation.

The report ran three different scenarios: Sort of a status quo scenario through 2045, and that created the baseline, and then it looked at an increased investment to the locks and dams system and a reduced investment.

In 2045, we get our baseline under the status quo investment, and this is essentially the same investment that we have on all the waterways now, and where employment, GDP (Gross Domestic Product), and sales would be in the year 2045. And then comparing that to an increased investment scenario of \$6.3 billion, and we get that \$6.3 billion of fully funding the 21 projects that are essentially on the Army Corps' wish list right now, is what we said.

So, in 2045, compared to the status quo, we see employment go up by 77,000 jobs, GDP go up by \$72 billion, and sales go up by \$142 billion. And Secretary Perdue is a business guy, and this is critical to him to where he's looking at return on investment, and he says, if you spend \$6.3 billion to get \$72 billion back in GDP, that should be a no-brainer and anybody should want to make that investment.

The third scenario that the report ran was a reduced investment scenario, and this was taking a one percent reduction in the budget now for every year through 2045 and that's how we get that \$14.3 billion reduction in the budget. In comparing that investment strategy to the status quo, we see employment go down by 72,000, GDP down by \$72 billion, and sales down by \$133 billion. So, obviously, we need to be on the increased investment scenario and stay away from this scenario.

Another way to look at it is simply by foreign volume and market value, and what you see here is comparing the three different scenarios. Volume of grain exports is increased, obviously, through increased investment and decreased through decreased investment. Pretty simple. Pretty logical.

On market value, if you have this black line here in the middle, if that's the status quo investment scenario, you see, under the increased investment scenario, a \$39 billion gain in the year 2045 to the corn and soybean market. It's adding, essentially, 20 cents per bushel.

And then under the reduced investment scenario, you lose \$58 billion. So you have got a spread between the two drastic scenarios of almost \$100 billion.

This is the comparison to Brazil, and this is what's vitally critical to American agriculture. The two bars on the left is the concurrent scenario, and this measures the total cost of sending soybeans to Shanghai, China. Soybeans originated out of North Mato Grosso, Brazil, and cost about \$403 to get to Shanghai, China, compared to soybeans originating out of Davenport, Iowa, \$397. So we currently have an advantage over Brazil of about \$5.35 per metric ton.

And then if you look at the three different scenarios, if we go under the status quo, we start to lose that advantage, and we only have about a \$3 advantage in the year 2045.

If we go under the increased investment scenario, though, we increase our advantage to about \$22, but under the reduced investment scenario, we would actually lose our competitive advantage to Brazil, and Brazil would actually have about a \$3.89 advantage.

Now, this is somewhat comparing apples to oranges because we're comparing American dollars in 2045 to what Brazil has in 2018. So we're making the assumption that Brazil's costs are not going to come down at all, and that is completely unrealistic, because historically, over the last 10 to 15 years, we have seen Brazil's cost come down at a steeper rate than American costs. And so, at a certain point, they're going to catch us and that's why that \$6.3 billion investment is so critical, and a lot of that decline in the Brazil cost curve is because of Chinese investment and their need for grains.

A couple other slides. This is simply how we get to that \$6.3 billion. This is simply a list of all the projects totaled up, the 21 projects.

And then the last couple of slides, also in the report, we did state-by-state analysis. You can go to stakeholders, members of Congress. That slide's kind of difficult to see, but this is the exact same information, just not in a map format. You can see what employment is for each of those states, what GDP is for each of those states, and what sales is for each of those states.

I believe that's it. With that, I'll be happy to take some questions.

MR. POINTON: Do we have any questions for Mr. Liske?

MR. BALZANO: Just one. Why is Brazil more expensive than us? What's driving their cost?

MR. LISKE: That's a good question. Let's go back and look at that. So a large reason is our advantage on the waterways. If you look at the breakdown of their bar graph aggregating all of their costs, you can see that there is no green bar here to where the U.S. has a green bar. And that green bar represents \$24 of the total \$397. And so what they don't have in the green bar, they have to make up in their trucking costs. Absolutely, absolutely.

MR. BALZANO: Yeah, the fact that we have advantage to the waterways system and the fact that that is the most efficient and most cost effective for grain farmers in the grain industry is purely the bottom-line advantage to our competitiveness to Brazil.

MR. MONAHAN: This is Mike Monahan with Campbell. Not a question but, I guess, a few observations. When you look at this study, first, I just want to thank the USDA for bringing this study up to the Users Board, it couldn't be more timely, when we're looking at the inflection point of future investment and new construction under inland waterways system, but key components, you know, when you look at \$6.3 billion positive impact with increase in investment, that is no-brainer. And when you couple that with comments this morning from MARAD regarding potential for containers on the inland waterways system and then you couple that also with almost \$200 billion of new petro-chemical facilities that are going to be built all on the inland waterways system, when you rack and stack all the new investment coming in, the importance of this to our exports and the competitiveness in the world market and tie it into what our new chairman Rob Innis was saying, it just contradicts the whole BCR

(benefit/cost ratio) process that we're involved with now. We are understating the value of our inland waterways system. We have to refresh that process to make sure that we're looking at reinvestment into our locks and dams in the appropriate fashion. So thank you.

CHAIRMAN INNIS: Rob Innis. To piggy-back on Mike's comment here, when we look at this and we're looking at the 10 to one reinvestment strategy basically for \$6.3 billion, we can get \$72 billion in benefit, and we're only talking about agriculture, soybeans and corn here. We're not even looking at all the other materials that could have been moved through this system and the savings that brings to the infrastructure. I think that really states the fact that we're not looking at the true payback that the inland waterways system gives us, and we really appreciate the study. This is fantastic. It really backs a point that we have been pushing for a number of years, so thank you.

MR. TIMOTHY POWER: Tim Power, excuse me, with SCF. I think an interesting point made by the speaker is that these countries in South America are not standing still. You know, we have a barging business in South America as well as here in the U.S., and we see it. They're investing. They're making changes, improving rail systems, and they want to be competitive in the world, and they will be. We see it consistently throughout the years. They're doing dredging projects, they're doing rail projects, new road projects. And their point is to the waterways. They understand the economics of it, and I think it's imperative that we look at what we are doing going forward, because they look at the U.S. model. I go into the country of Paraguay. What do they have? They have things from the Corps of Engineers that say what they have done and how they look at the U.S.

And you go to Bolivia, you go to Brazil, they model what the U.S. does, and I think it's critical that we take the next step and say we have got to fund our system. Thank you.

MR. SPENCER MURPHY: This is Spencer Murphy. Just a follow-up to that point. Do we know how much has been invested by China in terms of infrastructure in Brazil, for example?

MR. LISKE: I don't have an aggregate number. I don't know if Kelly or anybody else does in the room, but there's a couple of links on this slide here that identify it, and I'm sure they have numbers there. And the full report -- I can't recall off the top of my head, but it might have a specific number, but it could be easily found, I'm sure.

MR. MURPHY: Thanks.

MR. THOMAS SMITH: I know this is (indiscernible) but I can't help but recognize (indiscernible) in the oceans. So two questions: One is, why is our ocean segment so much more expensive than Brazil's to start with now, and two, what is the main effect of that?

MR. LISKE: Yeah, the first question, I'm not exactly sure. That's a good question. I don't know why we're more expensive now than Brazil. I'll go back and look into that. The answer to the second question, you're absolutely right. It's that red line that I pointed out on the map, the dredging of the Lower Mississippi River to 50 feet, allowing vessels to get further up the river and load quicker.

MR. POINTON: Damon, you had a question?

MR. DAMON JUDD: Damon Judd from Marquette. Spencer, to answer your question, I believe the link represents \$47 billion of direct investment from China in Brazil, not all of that related to specifically waterways infrastructure but as you think about the Chinese Belt and Road program, a significant number, especially as we think and contemplate around the other benefits of the \$6 billion increase domestically.

And echoing a lot of the comments from the other Board members, for me, the most important chart is the downward sloping line comparison and your point that, you know, this is not static. And I think this was incredibly important work for the USDA to do, but we are competing as a country, for jobs and economic growth on a global scale, and we are very much accessing global markets for imports and global markets for exports through the heartland, and we better believe that the competitive advantage that we have access to and the investments we have made as a country and the unique system we have, this artery of the inland waterways is truly precious to kind of where we sit globally, that if we don't continue to make investments, you know, the downside scenario is much worse.

You have to pick a baseline, but the baseline of no investment relative to the competitor that is clearly investing at a very rapid pace is much more significant than what's represented, I think, in the model, which is my interpretation of it.

MR. LISKE: I'll finish by just saying, you know, Secretary Perdue often makes the points the way we're going to increase our export markets is delivering the highest quality product at the lowest price and, by far, we have got the highest quality product. It's a question of whether or not we maintain having the best price. And the way we maintain the best price is these types of investments. Thanks, guys.

MR. POINTON: Thank you. Appreciate it. [Applause.]

Next up on the program, we have Mr. Paul Clouse, who is the Acting Chief for Navigation in the Corps Headquarters. His real permanent position is the Deputy Chief for Navigation at Headquarters. So he's kind of wearing two hats today, and he's going to talk a little bit more on what Mr. Leach talked about with the budget and some more particular numbers on the FY 2020 budget.

MR. PAUL CLOUSE: Good morning. Good morning, Major General Spellmon, Chairman Innis, and Federal Observers. Thank you for the opportunity to join me this morning.

Like Mr. Pointon said, I am the Acting Chief of Navigation with a regular day job as the Deputy Chief. I will be presenting the Fiscal Year 2020 President's Budget, along with some historical budget information and appropriations. For the benefit of the new Board members, I will cover some information that has been previously briefed at earlier Board meetings.

The first slide kind of shows where we're at in the Civil Works program and budget timeline. As you can see, we're nearing completion of the Fiscal Year 2019 program and preparing to execute the Fiscal Year 2020 program. The Fiscal Year 2021 navigation business

line budget, budget recommendations, and technical recommendations have been submitted to the Assistant Secretary's office for review.

And, finally, districts and division offices will begin developing their Fiscal Year 2022 budget in approximately about four months. So it's a continuous cycle that we're working on.

This slide, the graph shows the overall Civil Works investment trends for both the President's Budget and the appropriations. As you can see, the President's Budget has remained fairly stable with overall appropriations steadily increasing. As of this morning, they have not passed a Fiscal Year 2020 appropriations act, so you will see that the appropriations trend line drops to the President's Budget on that last point.

This next chart was prepared at the Board's request. This chart shows the last few years of the President's Budget and total appropriations for navigation. This includes both inland and coastal appropriations. Please note for the Board members that this chart will be further refined in subsequent Board meetings to separate out both inland and coastal appropriations. For right now, this number shows the aggregate of both coastal and inland.

The trends do show a consistent increase in overall appropriations as compared to the President's Budget, and, again, this goes back to the work plans.

This next chart shows the last five years of the President's Budget, broken down by inland and coastal navigation and further broken down by our funding accounts, which includes Investigations, Construction, Operation and Maintenance (O&M), and the Mississippi River and Tributaries Project (MR&T).

We put a map on here. This shows the geographic locations of the Fiscal Year 2020 Civil Works construction projects that are greater than \$10 million in the President's Budget. The blue circles represent navigation projects and the funding amount in millions of dollars.

There are two inland navigation construction projects in the President's Budget for FY 2020. It's \$111 million for the Lower Monongahela River (Monongahela River Locks and Dams 2, 3 and 4) and \$24 million for Mel Price Locks and Dam. Again, those do not include the work plan; this is just strictly the President's Budget.

And, finally, the last slide here provides a summary of outcomes for the President's Budget for FY 2020. Construction funding is up from FY 2019. Investigations, Operation and Maintenance, and the Mississippi River and Tributaries are slightly down from FY 2019. This summary is only for the President's Budget and does not reflect total appropriations.

As General Spellmon mentioned earlier, we are very optimistic the final appropriations will likely have substantial changes across all funding accounts.

So pending any questions, that's all I have for you.

MR. MONAHAN: Paul, this is Mike Monahan. I guess, one, thank you for outlining the President's Budget versus what's actually appropriated. I guess, you know, from my perspective -- and I was fortunate enough to, early on as a Board member, sitting in some

meetings on the Lower Mon (Monongahela River Locks and Dams 2, 3 and 4), and I was really astounded, when you're sitting in the planning, execute, and 40 percent of the time spent was really talking about contingencies for a lack of funding because of this disconnect that we have between the President's Budget and ultimately what gets appropriated.

So my point is that we are driving the cost of the projects up unnecessarily. We are also delaying the execution on the project. So not only should we emphasize this on this particular slide but it may also be interesting is a quick lesson learned just to take Kentucky, Chickamauga, and the Lower Mon and take a look back and if we had appropriated money, fully funded those projects on the front end, how much would we have saved for each of the three projects and how much time would we have saved in the construction process?

My guess is part of the frustration from this Board member's perspective is that I know the Army Corps of Engineers, when you give them the money upfront and fully fund the project, you will get the job done. There's no question about it, on the execution side. And I think, as we look at this changeover, moving forward and looking forward on the new construction projects, we need to really evaluate how we go through this budget and appropriation process and see what we can do working together to fix it, get the money upfront, allow the Corps to do their job, and then this Board is hold everyone accountable as far as the execution side, but, you know, part of the frustration is that, we're really not approaching this in the proper way to bring the right value to this nation. And I think we really need to step back and look at that as we go through the updating the capital investment strategy. Thank you.

MR. CLOUSE: Thank you for your comments.

CHAIRMAN INNIS: Rob Innis. Just one quick request: Once the appropriations is completed, is that something that you could revise this and send it out to the Board?

MR. CLOUSE: Yes, we will do that.

CHAIRMAN INNIS: Appreciate that. Thank you.

MR. POINTON: Yeah, that's the intent all along, Rob, once we get an appropriations act.

MR. MURPHY: This is Spencer Murphy. I just quickly want to note that, if you look at the President's Budget over time versus what we just saw in the USDA study about status quo or reducing investment, I mean, the President's Budget would reflect what looks like a status quo situation. So if we're going to try and increase our exports and increase our GDP, I just think we need to make sure that the administration understands that a status quo approach to this system is going to have the effects that we just saw in the prior presentation. So thank you very much for spelling that out for us.

MR. LEACH: Mike, just a follow-on comment to your observations. One of the things the ASA's office is working with OMB on, as well as the Corps, is two principles that you kind of addressed is one that we -- any projects that have been started construction that we fund those to completion. So we have been emphasizing that with OMB and the Corps and trying to advocate that.

The other is, along the same lines, once we do have a new start, that we fully fund those to completion, based on capabilities. So those are two principles that we're continuing to emphasize with the administration as we look at our capital investments, especially with regard to construction. And we argued those points that you made about how much more efficient it is to fully fund these jobs and not drag them out from just from a construction perspective.

So we're well aware of that. We're continuing to drive that concept with OMB, and I think we have been fairly successful to date or at least in the last couple of years to move in that direction.

MR. MONAHAN: This is Mike Monahan. Thank you, Dave, for your comments, and thank you for the support.

MR. POINTON: Any other questions for Paul before he escapes the podium?

All right. Thanks, Paul. [Applause.]

The next agenda item is the Inland Waterways Trust Fund status and some brief project summaries. I will be providing that for the Programs Integration Division for Headquarters. They did not have a person available to do that today. Regardless, I know it as well as they do.

So this is typically what Joe Aldridge would present from our Programs Integration Division in Corps Headquarters. This is the status of the Inland Waterways Trust Fund (IWTF). So we have got our beginning balance. And these are the fuel taxes through July that we have already collected and the interest that they have earned. Approximately \$135 million is available from the IWTF from the carry-in amount and the money that's been generated through July of FY 2019.

Today, Treasury does not reflect any transfers out of the Inland Waterways Trust Fund. We have an inquiry into their headquarters to figure out why that's not showing up on any official documentation that we have received from this trust fund. I don't have an answer yet, but we are pursuing that, and we're going to find that out because we actually looked in our records, and we do have obligations and expenditures on all those IWTF projects that you're going to hear about after I'm done here.

So we are trying to get to the bottom answer there. It doesn't seem to be affecting our execution of the projects, but we can't explain why there's no transfers reflected out of this trust fund. These are from the official Treasury statements. So that was the bombshell, by the way.

These bar charts show the comparison of the revenues as we're going through the year into the Inland Waterways Trust Fund.

CHAIRMAN INNIS: Hey, Mark. Rob Innis.

MR. POINTON: Yeah, Rob.

CHAIRMAN INNIS: Getting to that point here, we're \$8 million ahead of last year, and this gets back to the Board's recommendation that we look at \$115 million rather than the \$105 million that they continue to use. So, I mean, with these funds, we're looking at that were at least going to be \$115 million this year. We need to use that \$115 million as the Trust Fund dollars.

MR. POINTON: Yeah, you made my point. Thank you.

This is reflective. You mentioned it at the previous meeting. It's reflective from last year and the year before when you look at the actual revenues that are going into that Trust Fund. But the projections that we are using and the budget development from the guidance that we're getting from the administration underappreciates the revenues that are actually being collected by the fuel tax.

MR. JUDD: Mark, Damon Judd. I want to add one thing to Rob's comment. Your current year numbers are actually probably below what a normal trend line would be because of the high water and conditions we have had. As a large operator of horsepower, I can tell you we burned a substantially lower amount of fuel this year.

So as you think about really the economic activity that wants to go through this pipe, that number would even be higher than what you're seeing pace this year.

MR. POINTON: Yeah, and that's on several of the mainstem segments. We have had high water that's impacting this. Again, kind of a little different perspective for the last three months on the revenues that are being collected for the Trust Fund. Again, this all drives the point home that Rob brought up that we're way ahead of the actual collections of what we use as the projections.

These are the actual projects and how they were laid out, so you can see in the FY 2020 budget, we have the \$111 million for the Lower Mon 2-3-4 project. That's a 50/50 split between the federal dollars and the IWTF dollars. So \$55.5 million coming out of the Trust Fund as it currently sits in the budget. That does not reflect anything in any appropriations. Any House markup or Senate markup is not reflected in any of these data.

So LaGrange was fully funded. In essence, in FY 2019, all those dollars were being used despite the fact that the Trust Fund statements are not reflecting any transfers out of this trust fund. I don't know how that's being funded, but we'll get to the bottom of that and report that back out to you guys.

CHAIRMAN INNIS: Mark, quick question on LaGrange.

MR. POINTON: Yes, sir.

CHAIRMAN INNIS: Do we know if the Supervision and Administration (S&A) and major maintenance was estimated at \$43.5 million? Can we confirm that?

MR. POINTON: I can get back to you on that, yeah.

CHAIRMAN INNIS: If you could, that would be great.

MR. POINTON: I believe that is the answer, but I'll get back to you on that. I think you guys were trying to figure out did that include the major rehab as well as the major maintenance activities that were being proceeded in conjunction with that.

CHAIRMAN INNIS: Correct. Yeah, we're just making sure that the money is flowing properly.

MR. POINTON: Yeah, as you should.

CHAIRMAN INNIS: And getting --

MR. POINTON: As Marty says, if you watch the pennies, the dollars take care of themselves. Right? Is that correct, Mr. Hettel?

I think you mentioned that to me, I'm not sure I can mention how many times you said that to me.

Going to do some project updates. I'm quickly going to touch on the Inner Harbor Navigation Canal (IHNC) Lock project and the LaGrange Lock and Dam major rehab. We do have representatives from all the major projects, so I'm not going to spend too much time talking about Olmsted, Lower Mon, Chickamauga, and Kentucky, because we actually have the project managers (PMs) here and the people who know a whole lot more about these than I do, and they'll get into the weeds and the details of those projects.

So, as you look at that slide, not much has happened since the last meeting, virtually nothing has happened at IHNC Lock. I believe it's still in litigation, so if you will, that project is on hold at the moment until that gets us out of the legal process.

MR. MURPHY: Mark, Spencer Murphy.

MR. POINTON: Yes, Spencer.

MR. MURPHY: Despite the litigation, does the GRR (General Reevaluation Report) that's supposed to be completed by December, is that still on track or is that going to be postponed until later?

MR. POINTON: I was told it was on track. I will double-check on that; that the GRR is still sticking to its schedule.

MR. MURPHY: Okay. And then more of a comment or a suggestion that touches a little bit on the litigation question, and I say this as a resident of the City of New Orleans, so I'm familiar with it.

MR. POINTON: You're intimately aware of it.

MR. MURPHY: Yeah. I follow it pretty closely.

One of the issues -- and there's more than one issue that has been an issue for the neighborhood is -- there are two bridges that are in play when we talk about replacing this lock, which are to be replaced as part of the project, in my opinion, which, I think, makes sense.

But one item we might want to consider -- and this might already be in the report -- is the order of work there to replace the bridges before we do the lock work might be something to consider so that the neighborhood sees something positive before they are displaced and what they rightly or wrongly perceive to be, you know, a project that has no benefit to them. So that might be one way to help -- without changing the scope of the work or delaying any project or doing anything differently than we would do other than just ordering of the sequence of work might be something to consider to make it go smoother.

MR. POINTON: Yeah, I'll check with the project manager down in New Orleans and see how those are being addressed. I'm not an expert on our construction side. I know a lot of the ancillary features for the navigation project. They do a lot of the relocations and bridge locations and things like that, typically ahead or concurrently as they pursue the lock, but I'll check with New Orleans and I'll get back to you guys on where that is.

MR. MURPHY: Thank you very much.

MR. POINTON: Thanks, Spencer.

Here we are at LaGrange. This is a major rehab. It's been fully funded to complete the major rehab portion, which, again, is 50%/50% cost shared out of the IWTF. We had a presentation at the last meeting. They are still on schedule. They had anticipated some high water, so that was built into their schedule and their funding. The feedback I have gotten from the Rock Island District and the Mississippi Valley Division is that's still on schedule, and they're full speed ahead, sticking with the schedule and their cost estimates.

I do have a few slides here for the LRD projects, but the same information is included in the specific presentations for those projects, so I'm going to defer saying anything about those, and they can be addressed during the project presentations by the project managers.

Do I have any questions from anybody? All right. Great.

CHAIRMAN INNIS: Mark.

MR. POINTON: Sorry, Rob.

CHAIRMAN INNIS: Rob Innis. One quick question. In the next meeting, is there any chance that we can get somebody from Treasury to explain why?

MR. POINTON: We actually tried to do that for this meeting, and I will reinvigorate that again. They are pretty good at avoiding giving us a straight answer on that, and we are going to go back and do that again. In fact, I have got two guys that sit above me in the food chain. I'm going to now ask them to help me, if we can get that going, because I'm striking out at the action officer level.

MR. SMITH: This is Tom Smith. What was the issue, can you just clarify the problem? Is it about the thing which I think will just play out to be just about the transfer or timing but it's more on the revenues?

CHAIRMAN INNIS: No, my question is more --

MR. POINTON: The projections for the revenue.

MR. SMITH: The \$105 million versus reflecting what's current. Okay. We'll work with Mark and see what we can do.

MR. POINTON: Yeah. Thanks, Tom.

CHAIRMAN INNIS: Thanks, Tom.

MR. POINTON: Thanks, Rob.

All right. So it's come up a little bit earlier today already, the capital investment strategy. David Frantz is going to give us an update of where your team is pursuing that. There are a few people here in the room from the industry side that have been providing us their wisdom as we move forward in this. So David?

MR. DAVID FRANTZ: Thank you, Mark.

Good morning, Major General Spellmon, Chairman Innis, Board members, Federal Observers, and guests in the audience. I am David Frantz, the Inland Navigation Program Manager in the Headquarters, lead for the Capital Investment Strategy Update Team. We do have a number of members of the team here in the audience both for the Corps side as well as some of the industry representatives that have been providing us with great insight and information.

This topic's been touched on a couple of times in the last couple of Board meetings, and so I'm just going to give you a little bit more information as to where we are, what we have been working on, and what our path forward is.

As some of you may know and for the new folks, we had developed the Capital Projects Business Model (CPBM) Report back in 2010. The Water Resources Reform and Development Act of 2014 (WRRDA 2014) asked us to develop a 20-year strategy for making capital investments on the inland and intracoastal waterways based on a number of factors. One of the provisions of WRRDA 2014 was to update that plan every five years and that's currently where we are.

And some of you may have seen some of these documents. The book on the far side is the 2010 CPBM Report. The one in the middle was the 2016 CIS (Capital Investment Strategy) report. The one on the farthest is a conceptual cover of what the upcoming report may be, so don't print that off but just want to let you know that we have at least started thinking about

what the cover of the book is going to look like. We do have more than that, but that was the start. You have got to start with the cover page and go from there.

A couple of things. What has happened since the 2016 CIS Report? Of the four projects that were under construction, we have made tremendous progress and strides. Olmsted Locks and Dam became operational a little over a year ago in August of 2018. The Lower Mon project, Monongahela River Locks and Dams 2, 3, and 4, is in the FY 2020 President's Budget to be fully funded to completion.

The cost share for the construction work at Chickamauga was changed from 50/50 to 85/15, with 85 percent coming from the General Treasury and 15 percent coming from the Inland Waterways Trust Fund. And then the highest priority of the major rehabs, LaGrange on the Illinois Waterway was also funded in full to completion. They are working on some of the maintenance aspects of it now, but the rehab will start next year. They're anticipating one year's worth of construction so, you know, come in, get it done, get out and move on.

As our team is working on the update, there are a couple of key assumptions that we're holding on to as we move forward, and we have heard a lot of folks talk about that here. The first thing is, you know, finish what you start, and I know there are some people that don't necessarily like that term, but the fact is, you know, ongoing construction projects, you have already started, you have already invested capital in, we have shown that there's benefit in those projects, and those are going to be the first ones that we're going to focus on as we move forward, and those are the ones that we're going to champion the most.

Some of the language from WRRDA 2014 says, as you move forward, assume you have efficient funding when practicable for those projects that are already ongoing. So we're moving forward with those assumptions.

Funding will follow the existing authority established in WRRDA 2014, which is currently 50/50. Now, we have seen instances where that has changed, but for planning purposes, to have a level playing field, the assumption is a 50/50 cost share.

CHAIRMAN INNIS: David? Rob Innis.

MR. FRANTZ: Yes, sir.

CHAIRMAN INNIS: Just a quick question. Because when we were in the last meeting, we talked about doing two funding strategies: The 75/25 and the 50/50 for this.

MR. FRANTZ: Correct.

And I believe we're still going to run those numbers. And we have a couple of things that we have been discussing that -- we'll have some dual tracks. One on the funding scenarios and then there were a couple other things that we were looking at discussing I think with the benefit/cost ratios (BCRs) and the remaining benefits/remaining costs. You know, some of those ideas are accepted by some and not by others, but we do want to try to get a true picture of what is out there. So we are planning on running a couple of different scenarios, having a large selection for people to choose from.

CHAIRMAN INNIS: Okay. Thank you.

MR. FRANTZ: One of the other things we want to do is -- and there's a lot of concern about spending all of the money that we have in the Inland Waterways Trust Fund, and we certainly want to utilize as much as we can, but we realize that sometimes conditions change. We come across things we don't anticipate.

So we do plan on -- we think it's wise to leave some type of a minimum balance for unexpected contingencies. Currently, historically, that balance has been about \$20 million. Whether that's the right number or not, that can certainly be debated and decided as we move forward.

Budgeting priority is going to be dependent on administration guidance, and all of that and the caveat that we have -- that was throughout the 2016 report and still holds true to this, that this is going to be a planning document. This is not necessarily a document being developed for how we're going to do our budget, but it's going to let people know these are the projects we think we need to invest in and these are the reasons why and those people that take that information and put numbers to it and put it on the budget moving forward, they will have solid information to work with.

We talked about what is the report update strategy. We're going to use a lot of the keys and the same strategies that were developed for the 2016 report, one, because that was the report that was submitted to Congress, so it has passed a lot of the initial checks and balances. A lot of comments and concerns that came from the various agencies that reviewed that document have been incorporated into that report, so we believe that a lot of the truths and the changes that were established in that report should carry forward into this one.

One of the other things that we're doing -- and I'll touch on briefly -- is we're kind of working on an attribute matrix to do a structured analytic review and process to screen the projects as they come through. We're also going to apply some expert elicitation and professional experience to whatever list is generated just to see if it makes sense. You can run, you know, anything you need to through a sausage-making machine, and you got to take a look at the product that comes out the other end to make sure that it makes sense and you can take it from there.

And this is just some examples of some of the things that we're looking at for that analytic process. We're kind of looking at buckets or tiers, categories of where a lot of our projects fit. You know, one of the things we're certainly going to look at is those projects that are currently under construction and ongoing. Kentucky and Chickamauga, obviously, are going to float to the top of the list.

We have those projects that we're looking at for new construction. The ones that are currently authorized, have current cost certifications or have recently gone through or are undergoing cost updates. And, please, this is just a representative project. It's not a comprehensive list, so don't take this and run out and say these are the projects that are going to be done next.

But, you know, really what we're looking at is this particular category is kind of key. This is what we all sitting around the room, in our gut, know these are the projects that are really ready to go. They're kind of next to be teed up. We have a number of projects on the Upper Miss and the Illinois that are associated with the NESP project. We have projects on the Upper Ohio. We have talked about the Inner Harbor Navigation Canal Lock. That's a good, viable, worthwhile project. It has some challenges, but, you know, those challenges are beside where this project may shake out in importance to national investments.

We have things down on the GIWW (Gulf Intracoastal Waterway). We have a number of projects. People have talked about the increase in petro-chemical development down there. We have things on the MKARNS (McClellan-Kerr Arkansas River Navigation System), Three Rivers. So these are all projects that are the closest to being teed up and ready to go, and so there's going to be a lot of emphasis on these, and we believe that the analytic process, once we run these projects through our matrix and our attributes and our rating metrics and all of this stuff that goes in that, you know, this is where everything is going to shake us.

So these are the projects that we know we're going to focus on, and the other analysis is just going to kind of ground-truth what we already believed it to be.

And we have other things. We have rehab projects that we're looking at, too, to see where they score out. We have projects that are on the border of, you know, do you invest in a rehab, rehabilitation, or is that a project that you would probably recommend for a feasibility study to new construction, new expansion.

So those are a lot of the different types of things that we're looking at, and those are kind of the categories for a lot of the projects that we're looking at for fall.

And there's been a lot of talk about the value or lack of value of BCRs. Currently, that is the one metric that we know that we have to look at. But the team felt that it was important to look at the number of other considerations. And this is just some of them. These are some of the ones that we came up with, as we brain-stormed amongst ourselves, as well as working with industry. This list is continually being refined. We had a meeting yesterday that we did some shuffling of the deck and some combining of some of these, but, you know, other than just BCR and the things that go into building that value, you know, we're looking at things like reliability of the system. We're looking at redundancy. Do you have the capability, if one lock goes out, that you have another means? Are there alternate routes? Utilization. Commodities. Support for national strategic goals, and economics.

These are all factors that we're looking at and looking at each of our projects and measuring them against some of these considerations as we move through our analysis.

Last thing is, you know, we have kind of touched on what the schedule is, and our team has been working for the last six months or so. And, again, we have recently had industry come in for some listening sessions and provided incredible and valuable information. I'm not necessarily going to go over all of the stuff that we have already accomplished, but where we are, the first, second week of September, you know, we have started working on our analysis metrics and we're finalizing our attributes. We're looking at our rating metrics. We'll start running all of that through the sausage grinder here fairly soon.

We anticipate having ratings, rating scores for our projects in October, at that point. We'll be able to start socializing those for reviews and comments.

One of the things we have done is we have started drafting, updating the narrative of the report. So we have kind of got two things going on. We have got the analysis section that the team is working on. We're also, as an aside, drafting the report, scrubbing all of the things from 2016 that are obsolete, talking about some of the new metrics that we're using, prioritization criteria.

You know, we have a lot of new information on our condition assessments, risk exposures. We used a lot of those in 2016. We have five more years' worth of data on all of those. So we're analyzing and applying all of those. And, finally, I know that here's the big question. Everyone is like, Hey, when are we going to have this? And our goal is to have something -- something meaningful -- by early December. Now, that is our goal. Things may change. Things may come up. We may get thrown a curve. We may be asked to start over from scratch and go in a different direction, but right now, that's what the team is looking at. That's the mark that we have on the wall. That is what we're kind of setting up the next couple of months' worth of work for in order to meet this deadline.

So that's what we are striving for, and that's what we're hoping to achieve. Other than that, that's what I have. If there are any questions...

CHAIRMAN INNIS: David, Rob Innis. A couple of just quick questions for you. Is there another group meeting before we complete the attribute waiting?

MR. FRANTZ: Yes, sir. And that's one of the things I was hoping that, as we had a couple of the folks from industry as well as some of our team members, maybe we can set aside some time after today's meeting just to start looking at schedules, and if we don't do it here, certainly within the next week, we'll reach out to everybody and check availability, because it is on our list to have additional meetings. We just need to make sure we're in a place where we have something where we can sit down at the table and talk coherently about.

CHAIRMAN INNIS: And then one last question, and this is maybe more for General Spellmon and Tom, is December a hard date? Or if we don't have a product that we're in alignment with, can that be pushed?

MR. SMITH: Okay. Tom Smith here. So, you know, we have had this discussion a bit, and we set the date because of the demand signal for the product and the need to have a kind of disciplined persistent approach to get to a professional outcome. We do need to learn from the work that's being done, and you don't want to start a project by talking about what you would do if you're not where you need to be, but, David and I have talked a bit about this schedule with Paul and some others about we're going to take a look at where we are in October. We intend to meet this December timeline. But we do need, as you have pointed out to me and some others, we need to make sure we hit the right mark with this product.

The risk of not finishing the product is generally still those who are wanting the information that's in it. So it's to our benefit to button it down. Even if we call it a different

level of draft or whatever, because, like I said, you see the other budget cycles, you see the questions driven by the USDA report, and there is a desire that we have a credentialed statement. We have the information for most of what we want to do here. I mean, we're going to refine it.

So I would say that, you know, we'll work, see where we are, and if we need to, we can always bring information to General Spellmon about where we are. I mean, the deadline was set by us, if that's makes sense, Rob.

CHAIRMAN INNIS: Oh, I agree. I think the deadline can still be met, and I just want to make sure that we're all on board to do that as an industry and a group to make sure that we hit that deadline. But I just want to make sure that we're not going for this deadline at all costs if we aren't finished with what we need to do. We'll put the effort in to make sure we hit the deadline. Thanks.

MR. JUDD: Damon Judd from Marquette. I guess, as a new Board member listening to Mark's intro on some of the elements of the charter here, he described, for the Users Board. Really our primary purpose is recommendations on funding levels and priorities for modernization of the waterways. So, to me, this is a very critical project, obviously, new to the Board here and new to the process.

But to echo I think some of the things embedded in Rob's questions, I would just ask that, if at all possible, for us to see early drafts. You know, I think we all take this responsibility very seriously, and we know that the teams have been putting a lot of work into this, but, you know, we'll be in December before we know it, and I'd just like to ask if there's any education you can help us with along the way, I think it would help at least put me personally in a position where I feel more comfortable around trying to serve in the capacity as a Board member here in terms of weighing in on the project list. And what's most important is that we prepare for the future, and we all know we don't want to put ourselves in a position without having the projects organized and aligned and a plan going into the future, but there's a lot of information that I think is to be coming and December is not too far away.

MAJOR GENERAL SPELLMON: We certainly don't want to surprise anybody. Can you talk to that, how we have done that in the past and how we intend to do it here over the next several months, the communication and sharing?

MR. FRANTZ: On the sharing, yes. In the past, it was a little bit different because they were kind of starting from scratch, so you had a much larger group of Corps folks and a much larger involvement with the industry and a much larger involvement with a lot of the senior leaders. And it was, I'm going to say, Mark, a year-long, year-and-a-half-long process with all of that to come up with a report that went through a couple of iterations after it circulated for final review and comment.

And so what we started with, with this particular one is we knew that it wasn't going to be as heavy a lift because we had a document that had been approved, and our task was to basically, the way it's stated, is let us know if any of your prioritization criteria has changed, and if so, if that affected what your priority list was.

So that was really the charge from WRRDA. So as we move forward with this effort, we have kind of started with a smaller group, and we kind of met internally with some of the Corps folks. A lot of the folks that were involved in the 2016 CIS report kind of formed what we call the core, C-O-R-E, team here. And then we brought in a small group of stakeholders. Some members of the Users Board, some former members and folks from the Waterways Council, Inc. (WCI), the National Waterways Conference (NWC). So some of those folks and had some listening sessions, and we've kind of developed a strategy for moving forward. And what the Corps has kind of done on the side is take some of that information and keep jelling it and keep working on that.

So far, we have had a couple of meetings, once a month, once in July, once in August, and I envision we'll have one more in September/October. And as we start coming up with our list, we do intend to share that with a wider audience, a wider industry audience as well as a wider Corps audience and get some feedback from the divisions and certainly the senior leaders.

As Mr. Smith pointed out, you know, October is we're going to try to have something available for people to look at and comment on, and from there, we can kind of shape the final product from that. Our intention is not to give you a final product to say, Hey, here's what we developed. We want to have something somewhat concrete for you to look at to see if it makes sense. And, at that point, we can make some adjustments at that point.

What we're currently looking at, as Rob had asked, both in emails and here, and I think a couple of the other team members asked me in the hall earlier, we are ready to set up that next face-to-face meeting as is a matter of herding cats and trying to get on everybody's schedules as time allows.

But our goal is to have another group meeting here before the end of September, kind of see where we are, and then keep working forward with the coordination in September, October, and November and see where we are at that point.

MR. SMITH: Yes, sir.

MR. JUDD: Tom, this is Damon. Appreciate that, absolutely. Addressed my concerns and make sure we're prepare to act as the Users Board.

MR. MONAHAN: This is Mike Monahan with Campbell, David. And excuse me if I missed this, but, you know, we're talking about the timing of data and the quality of data that we're receiving. When do we expect the ERR (Economic Reevaluation Report) to be released? Do we know that yet?

MR. SMITH: The GRR for --

MR. MONAHAN: The ERR for the economic study update from NESP, the update.

MR. LEACH: Yeah, this is Dave Leach with the ASA's office. Currently, the Corps is working on that. There's a draft that we're currently reviewing as we speak, so I would anticipate that would probably be complete in October.

MR. MONAHAN: Thank you. From my perspective, I think that's a critical piece of information and then, ultimately, it becomes a driver for moving forward in the PED (Pre-construction Engineering and Design) process, as we look at the capital investment strategy. Thank you.

MR. FRANTZ: Going once, twice...

MR. POINTON: Yeah, I think you're released from the podium, David.

MR. FRANTZ: Okay. And I will be here if anybody has questions or comments during the break and afterwards.

MR. POINTON: Thanks, David.

This is a follow-up from the last Board meeting. We kind of went down in a rabbit's hole on some value engineering from what we were hearing for some of the projects that Mike Tarpey was giving us an update on.

So we have Sean Dawson here, who is the Value Engineering Officer, I believe, from the Baltimore District. And he is going to be giving us an overview of the value engineering process in the Corps.

MR. SEAN DAWSON: Good morning, everybody. Thank you for the opportunity to speak to you for a few moments about value engineering. My name is Sean Dawson, and I am a certified value specialist, which means I hold professional certification in the value industry, and I am the Value Engineering Officer for the Baltimore District.

The goals of this presentation, and I'll go through this relatively quickly, is I'd like to help foster a common understanding or a better understanding of value and how value is represented, an understanding of the value methodology, value analysis, and Value Engineering (VE), understanding the phases and the processes of VE, understanding what is VE and what is not VE, because I spend a lot of time discussing that with people in studies and with clients, understand why we have to do VE, understand the roles and responsibilities of the people involved in the VE process, understanding what triggers the VE requirements for USACE, and then take any questions that you may have.

Okay. First off, how many folks have been involved in a value engineering study? A couple. Okay. Great. You don't really have to tell me but how many of you had a positive experience with that value engineering study? Okay. So a couple. Great.

Our goal is to change that. Our goal is to provide some context and help you-all realize how we can be beneficial to your process. So it helps to have a common understanding of value. So definition in the dictionary, "value" is defined as the regard that something is held to deserve; the importance, worth, or usefulness of something.

So, let me say right now, that is subjective. To each individual person, value is subjective. So if I go up to a cashier and I hold up a penny and I say, "What is the importance

of this item?" they'll tell me it's to pay for something. If I say what is the worth of it or the value of it, they'll say it's one cent.

Now, if that penny has the date 1909 on it and an S for being manufactured or printed in San Francisco and the letters VDB, which are the initials of the person who did the engraving or the development of that penny, and you hold that up to a collector, that collector will tell you the importance is that's a very rare item. And the worth of that item to a collector or the value of that item to a collector, depending upon the condition, can be thousands of dollars.

So, same penny, different value assessment based upon the perception of the person. So value is also the fair return or the equivalence in goods, services of money for something that's exchanged. Again, please indulge me with a little analogy here or an example.

If I loaned you my car for the evening, you want to go do an errand with it, and you return it to me in like condition, we have a fair exchange. You have returned my car to me as I gave it to you. If you wreck my car, then we're going to have to determine some sort of value that I will get for that. And we can look in the Blue Book and determine whatever that value is.

You could pay me back with a check. You could get me a new car. You could buy me a television or items, goods that I may want, or I could assess a value to your time and say, "I need a deck to be built, and a day of your time is worth \$1,000." And if my car was worth \$5,000, please come over and spend five days helping me build my deck.

So value has a way of stretching across just tangible goods into other areas. So, of course, for the Government, we accept taxpayer and sponsor dollars. In exchange, they want to see an equivalent return in goods and services in projects and services that the government can provide.

So within my industry, value is assessed or value is looked at as function or what something must do to be successful, its performance requirements or its attributes, over resources, what it takes to make that happen. So we have an equation and that's the value equation.

So resources are the materials, the labors, the price, the time, and items like that. And notation down there, it says, Risk affects determination of value. Uncertainty affects value. How sure of you are the conditions in your scope of work? How sure of you are you of your labor market in this area? How sure of you that you will get your budget on time? All of those things can affect and play in to value determinations.

So moving on from there -- and if you have questions, please throw them out at me now or we can wait until the end; it's entirely up to you.

Value methodology is the systematic process used by a multidisciplinary team -- so not a single individual but a multidisciplinary team -- to improve the value of a project through an analysis of its functions -- and I will get to that in a moment -- and by identifying the most resource-sufficient way to accomplish those functions. So, basically, again, what must it do to be successful and what is the most efficient way to make that happen.

CHAIRMAN INNIS: Sean?

MR. DAWSON: Yes, sir.

CHAIRMAN INNIS: Rob Innis. A couple of questions on that. You used "efficient" twice there, and I was trying to figure out how we define "efficient." Is it time? Is it cost? Is it life cycle cost?

Because those are all going to have different impacts if we're looking at a value engineering, right?

MR. DAWSON: Absolutely.

CHAIRMAN INNIS: Especially when we're looking at something along the lines of a BCR.

MR. DAWSON: Absolutely. And that is, again, sort of dependent upon the points of view or the people who are involved in the project stakeholders. So what are your major focuses? Is it time? Do we have to execute by a certain point? Is it value? We only have a certain budget and we need to accomplish this by.

So, again, that's that perception of value and what the stakeholders bring in to it. When we bring stakeholders into the table, you know, if we're building a building or something like that, the people who are occupants have a very certain view of what the value of that building is to them. The people who maintain it have a very different view of the value.

So I hope that answers your questions in some extent.

CHAIRMAN INNIS: Yeah, I just want to clarify. So, like, when we're talking about a lock and dam project, in order to get new construction, we're looking for a BCR return of 2.5 to get above the OMB threshold there, right? So is the group looking at that when they're doing the value engineering of trying to drive it to that way or are they looking at the best thing? I mean, that's what we're not sure what value engineering is doing for the inland waterways system. What is the value engineering trying to drive towards?

MR. DAWSON: The best thing and stakeholder concerns. If you have a concern with BCR and bring that to the VE team, they will absolutely look at that.

We try to be as relevant to projects as we possibly can. And if you'll indulge me in getting into the process, I'll field this question if we can't quite get to it later on.

So value methodology, when we apply it to existing applications such as manufactured goods, that's its value analysis. So if you're doing assembly line work at GE (General Electric), they won't refer to it as value engineering, generally speaking. They'll refer to it as value analysis.

If we're using that term to new products construction processes or products, things like that, it's called value engineering. So if you have heard that term, a VM (Value Management),

VE (Value Engineering), or VA (Value Analysis), it's all the same process. What is the process itself? Within the industry, we call it a job plan, and it basically has three phases. It has a pre-workshop phase, a workshop, and a post-workshop phase. And I won't go into any great detail on the pre-phase, but basically, that's the administrative things that have to happen to put a study together. Probably the most important there you'll see a VE team developed either contract or in-house, so when we're putting a team together, we're trying to get a team of experts that are either independent or, in some cases, blended with the design team or the stakeholder teams, but a team of experts that can accurately look at that project and give you another perception or feedback on that project or another view of it.

In there also, the VE team is getting the pre-study document so that you draft RFPs (Request For Proposals), your plans and specs, your cost estimates, all of those so they can review that, develop cost modeling, look at the validity of what's come to them, put issue papers together and do some pre-work before we actually hold the study.

The study or workshop itself is a sequential process. Within the Corps, it's typically three to five days, though it can be greater, depending upon the complexity of the project. It starts with an information phase, so this is where we bring all of those stakeholders in, the design team, all the project components, the regulatory people, as many people as we can to provide input to the VE team on what that project must do to be successful from their perception, from their stake in the project, what it must do to be successful.

We'll move into the function analysis phase once we get there, and I will come back to function analysis in a moment, but that is where the VE team looks at what a project must do to be successful, not how it is currently doing it. And that function analysis phase is really what sets the VE process apart from some other optimization processes. So if you're in another optimization process and somebody says we have a glass or a pitcher or a bowl that is not working correctly, generally, you're focusing on how to fix that glass, pitcher, or bowl. You'll make it wider. You'll make it smaller. You'll change the components of it and how it's made.

VE says, "What is the pitcher or bowl doing?" On a functional level, what is it doing? So we break that down essentially into a two-word statement. It's an active verb and a measurable noun. So a pitcher or a bowl basically, at its most basic level, it contains something. It holds something. I usually do this with VE teams, and everybody had their coffee mugs out there, so a coffee mug contains a liquid. Right?

So within this room, if we say that a coffee mug basically is to contain a liquid or contain something, because you can put marbles in it, you could put sand in it, are there other ways to contain or hold something? Sure. There are backpacks. There's a trash bucket. You could put things in your hands. If it's a liquid, you can put it in your mouth. That broadens your solution set of ideas on how to accomplish the function of what that specific item is. And that's what value engineering does. We look at function.

We then go into a creativity phase where we do exactly that. We look at and brainstorm -- and it's unfiltered and we kind of say, "Release your inner seven-year-old" -- we go through these things and we develop all these ideas on how to accomplish those functions.

Then we'll bring in the value to phase. We bring all the hard criteria in. Can we do this per the FAR (Federal Acquisition Regulations), the federal acquisition regulations? Can we do it via UFC? All of those things come in and then are judged -- those alternatives are judged against a criteria, and then the team will select which alternatives they think would best affect value on the project.

We go into a development phase so the VE team will illustrate, they'll do calculations, they'll do cost estimating, supporting diagrams, any research they can within the context and time of the study itself to help the design team understand those alternatives for consideration and inclusion and moving and changing the project.

Then there's a presentation phase where we bring all of those stakeholders back in and the VE team presents. It's kind of the opposite the first stage where the stakeholders gave the information to the team but the VE team then presents those alternatives back for consideration. It's an opportunity for those stakeholders to ask questions and have direct interface with the VE team. It is not a decision-making meeting.

Process continues into post-development. At that time, we have our reports that are issued. People review those reports, and then the team will get together, once they have an understanding of those alternatives. All of the stakeholders would get together, and they will determine which of those alternatives will be implemented into the decision or into the process moving forward. And then there's a bunch of reporting requirements that we have to do.

By the way, this slide deck is what I use for our project managers at the office, I was asked for the 30,000-foot view and that's what I'm trying to give.

CHAIRMAN INNIS: Sean, one quick question there. Rob Innis again.

MR. DAWSON: Yep.

CHAIRMAN INNIS: You said that there's an option here where the team can accept or not or partially accept the recommendations.

MR. DAWSON: Absolutely, yes.

CHAIRMAN INNIS: So whatever the VE recommends does not have to go into the project.

MR. DAWSON: Absolutely. Absolutely. They are alternatives. They are options. They are a fresh perspective on how to move that project forward. VE teams, as I said, if you remember, take three to five days to do a study: we can't find everything. We can't find all the fatal flaws or the hidden components that may down an objective or an alternative. That's your design team. They're the people who are intimately involved in the project. They're going to work through those things and see if they can be accepted or not. These are not mandated.

CHAIRMAN INNIS: Okay. And then is there a time limit? You said three to five days or more. But, I mean, is there a specific -- can it not go over, like, two weeks or --

MR. DAWSON: No. In Baltimore, before me, I believe they did a couple of studies on some intelligence community projects that were more than a week long. The longest one that I have conducted is five days. Now, I have friends in the industry who have worked for OMB, done some work in New York City, and they have done multiple, multiple-week studies.

CHAIRMAN INNIS: Does this replace external peer review?

MR. DAWSON: No.

CHAIRMAN INNIS: That's still needed.

MR. DAWSON: Yes. –

CHAIRMAN INNIS: Sorry; one more question. Is there a reason that this isn't done as we finish out PED, that it's just the standard that we finish out the pre-engineering design and then do the VE before it's kind of finalized to say, okay, we have done this, we have done the engineering, let's bring in a secondary team to look at this.

MR. DAWSON: So there's a sweet spot for doing value engineering. Sooner is better than later, because once you have done too much, then any good ideas have to be weighed against schedule, cost of redesign, all of those things.

So, typically, we're trying to do things that, if we're doing design-build at the draft RFP stage, we're going to look at that document and see, is it as biddable as it possibly can be? We're going to bring in a constructability guy. We're going to bring in major disciplines that are involved. We're going to look at all of those things so that, when they produce the final RFP, those alternatives are included. We're going to look at things at the concept-level stage where we have a decent-enough design and cost estimate associated with that design to do a good evaluation on it, but, again, we don't want to progress into final design because we really don't get a significant return on the investment at that point.

CHAIRMAN INNIS: So is there a reason it's not standard in PED funding that we do a value engineering at the end?

MR. DAWSON: It should be. It is standard.

CHAIRMAN INNIS: Okay. Thank you.

MR. MONAHAN: Sean, this is Mike Monahan with Campbell. I guess I want to make sure I understand the value engineering process you're talking about here. Was this used for the Upper Ohio projects, where we saw a dramatic cost?

MR. DAWSON: This is the one thing I worried about. Those are not my projects, sir, so I can't specifically speak to the individual projects, being the Baltimore District VE Officer. I believe there's a follow-on speaker who is going to discuss value engineering here who may be able to address that. I can't speak to that specifically, sir.

MR. MONAHAN: And then, secondly, the focus is really on the design and execution of a particular project but does it really deal with the revenue side. This is all design and cost focused.

MR. DAWSON: The process itself, basically value engineer is at its heart. It's a logical decision-making process. You bring in information, you look at what something must do to be successful, you do creative idea generation, you do evaluation of those creative ideas, and then there's a presentation.

So it can be used on anything. The Corps uses it on projects, essentially. Now, we can certainly do studies -- it can be used as a decision-making tool, as a planning tool. It has wide validity in all circumstances.

If you consider that pretty much all decisions we make during the day have a basis in value -- why did you go to Starbucks rather than Dunkin' Donuts? There's a value reason that you did that. It may have been a shorter distance for you to go and you had less time. You may value the taste of Starbucks coffee versus Dunkin' Donuts. We all make value decisions and use a similar process.

So it can be used -- the application of it can be used on virtually everything. The Corps uses it on, designing construction projects and things like that. But it can be used in a very broad way.

We do it programmatically. We will look at a variety of projects and make broad assumptions based on the VE study, and then if we can do a barracks programmatic study and bring a variety of barracks projects in and say typically, then, if you're going to do a project that is similar to this, pull from this study. So it doesn't have to be done on each individual project. We can do it programmatically.

Like, in Baltimore, we have a beach replenishment and dredging programmatic study. So every year when we do an individual project, we simply pull that study off the shelf and say what in that study is applicable to this particular project.

MR. MONAHAN: So if I understand you correctly, then, this is scale-able?

MR. DAWSON: Absolutely.

MR. MONAHAN: You can scale this process up.

MR. DAWSON: Yes, absolutely.

MR. MONAHAN: Or scale it down.

MR. DAWSON: Yes.

MR. MONAHAN: So who in the Corps can answer how we're using value engineering process? What's the scope of that process today?

MR. DAWSON: I can show you some roles and responsibilities further on, which may help solidify that.

MR. SMITH: This is Tom Smith. Because that was the intent, it sounds like we're getting an overview of VE but it was really about the application of VE to, you know, our inland projects. We'll have a little bit of that in the next one.

MR. MONAHAN: Okay.

MR. SMITH: So, you know, Sean maybe take us through a few more of these, and then we can refine the ask task for the next one. But it is, Sean, about -- and I know you have great insight into the process story, but this group is trying to know, we learned last time about some significant value from this process, applied to the Upper Ohio, and so what Mr. Innis is asking, it should be the case for all of our projects. To a certain extent it is, but it's not clear that it is, so you can help us see that little bit.

MR. DAWSON: Okay. And I can, again, get to some of the overview of that. I can't, again, speak to the specifics of those particular projects. I'm sorry for that.

MR. MONAHAN: That's okay. I appreciate it, but I just want to emphasize this is extremely important from my perspective as a Users Board member as we look at new projects, you know, how we approach them and minimize the cost, the execution and the value to the nation. So couldn't be more timely.

MR. DAWSON: This is just a graphic which shows the process I just detailed to you.

So what is VE and what is not VE? So VE is a process to identify unnecessary costs on a project, and it is to offer -- and I highlight that in red because, again, this is not mandated -- to offer alternatives while assuring quality, reliability, life cycle cost, and other critical factors are maintained or exceeded.

And, again, value engineering teams, we're not always cutting costs. We're looking at that value equation of what something was due to the successful over the resources. We may see that a project or an item in a project is not as functional as it could be, and we can make a recommendation to spend more money. If you were to spend this much more money, you would see this amount of benefit more in your project. That happens fairly regularly in value engineering studies. So if you ever look at a value engineering report and there's suddenly a cost add in there, I don't want folks to go, Oh, my gosh, what happened to the study?

We had one with the Secret Service very recently where we did a dog kennel for their bomb and attack dogs. And the only alternative that they accepted out of it -- the design was done very well, but we found a way to make their energy consumption more efficient, and they were willing to spend about a half a million dollars more money to adopt that alternative into that project.

It kind of messes with my metrics of how much money did we spend on the study versus what did we save out of it, but, again, it's a good news story as we're able to find a way to make the project more efficient and give that to them.

Value engineering is not cost cutting and it is not quality reduction. That is actually antithetical to our process. That's kind of the bad reputation that the industry has that, oh, my gosh, you're just in here to cut my costs and slash my niceties. No, we don't want to do that. But if your niceties that you want are not required for the project, then, yes, we're going to question that, and we're going to bring that to your attention and provide you with how much money you're spending on that nicety that you may not need and allow you the opportunity to make a determination on whether you want to keep it or not.

So brief history, this was conceived in the 1940s by an engineer by the name of Lawrence Miles. He worked in the Purchasing Department of General Electric. It was World War II. Material was very short. General Electric had contracts with the Navy that they had to fill and they were having a tough time doing that because of the material shortage.

So he set about looking at what do those components do and are there other ways to do that, you know, not just developing the widget that was required and was able to be very successful in working that program, successful enough that the Navy adopted it right after World War II and the Corps has been doing it since 1964.

Okay. Reasons why we have to do it.

Yes, sir?

MR. POWER: How has the process changed since 1964?

MR. DAWSON: I don't know how it's changed within the Corps. Within the industry, there has been a codification of basically understanding function. And it wasn't as clearly defined when Larry was doing it back in the '40s. There were a lot of -- we're going to go down a rabbit hole of what's function and what's activity. But the industry has spent a great deal of time looking at essentially the functions of things in an abstract level to open up the broadest solutions that are the creative solutions as broadly as possible. That was not as apparent when Larry was doing things back in the '40s, so I'm going to make the assumption that the Corps probably has evolved with that also.

So reasons why we have to do value engineering? Basically Congress says so. So the first the public law, 111-350 41 U.S. Code, which says each executive agency will establish and maintain a cost effective process -- cost effective procedures and processes for analyzing function of a program project system, all of those particular items. And this analysis will be conducted by qualified personnel and directed at improving performance reliability, quality, safety, and life cycle costs. So Congress has very much said, "We're spending the taxpayer's money, we want somebody to be cognizant of that."

The value engineering team -- I like to say we're the advocate for the taxpayer or the sponsors sitting at the table. We're trying to make sure that we get the right projects but that the taxpayer and the people who are paying for them are getting the most efficient use of their money.

OMB Circular A-131 provides guidance to support the sustained use of VE in federal departments and agencies and, again, to reduce program and acquisition costs. Basically, again, we want to make your money work more, work harder than it can or than it was.

Public Law 99-662, that's WRDA 1986. There's a requirement for VE in water resources projects. This is also in the Federal Acquisition Regulations, in the FAR. So Part 48 has value engineering, and Part 52 has value engineering change proposals. So, basically, that is, if a contractor in a project finds a more efficient or better way to do it and brings it to the attention of folks while they're doing the construction, we can evaluate that and the contractor can essentially recoup some money or get some money out of that change proposal. And that's the FAR close that covers it.

And Army Regulation AR 5-1, Management of Army Business Operations details how value engineering is done within the Army.

Second reason, and I'll go through this quickly, the Corps has an internal Engineering Regulation; ER 11-1-321 sets the framework for how we do VE within our business process. And the second one is probably the most important bullet there. It says it applies to federally funded projects, \$1 million and greater. So that's what the ER says. That has been amended to \$2 million. It has been raised by the senior accountable officials to \$2 million in February of 2013.

It also says -- and this is important, because occasionally, we get folks to say I just want to do this in a day and we can do it with a couple of people. No, the ER says that we're going to follow the six-step ASTM/SAVE, which is the Society of American Value Engineers, job plan, and that's the industry standard. So it sets an industry standard for what we do, requires project management certification.

And the last bullet is our commanding general of the Corps, Chief of Engineers, put out a memo in 2017, one of his "SEMONOTES" that says, Guys, we're not doing as good as we could on this; I want to reinvigorate value engineering. You know, please make sure that this happens. So there is an emphasis from the Chief that we're doing value engineering on all acquisitions, not just Civil Works, not just Military, that we're doing environmental, that we're doing procurement actions on projects that are over \$2 million, addressing value engineering. It doesn't mean we're doing a study but at least we're addressing value engineering on it.

Who has a role? If you look at the top there, the person was ultimately responsible for value engineering within the Army is the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. Now, he delegates his authority to two places: To the commander of the Army Material Command for weapons development and to the Chief of Engineers for the rest of the Army. So not just the Corps but for all other Army activities. Value engineering is the responsibility of Chief of Engineers.

To just to hit the high points there, the Chief designates a senior accountable official. That's Jeff Hooghouse, who expresses his regrets for not being able to be here today. And then you can see we have value engineering at the division level and at the district level, and down there, you'll see district VEO (Value Engineering Officer).

So I have delegated authority from the value engineering from CVO (Chief Value Officer) to make decisions between \$2 and \$10 million within my district. So working with the project delivery teams, we can assess whether we're going to do a value engineering study or we can address it via an opportunity called low opportunity designation, which basically says we feel, based on the complexity and dollar threshold of this project, that were we to hold a study, we would not find a meaningful return on that investment.

So we can address value engineering in that regard also, but, again, should we cross the \$10 million threshold, generally speaking, we're going to hold a study on the project.

And then, obviously, we have our project delivery teams. And, again, the last person down there is the contracting officer for the district. So contracting officer is required to make sure that all legal sufficiency is met before they issue a contract. And value engineering, as we have seen, it has a legal requirement. So our contracting officer absolutely is involved.

So what triggers value engineering for USACE? It's pretty simple. If the Corps is the executing agency, meaning we are going to issue the contract, we have the requirement to do value engineering. If we do the design and we hand it to another federal agency, that agency has the requirement. It does not fall within the Corps. Now, we can still do it and hand it to them and they should probably accept it because we're meeting the industry standards -- and that has happened; we have had other agencies say, "Hey, we don't have our program put together quite as well as you do. Please do this for us." Perfect. We will do that.

But if we are the executing agency, if another agency gives us the designs, it's our responsibility. It's the Corps' responsibility to make sure value engineering has been done.

If the program -- and that's a military term -- but if your overall project budget is \$2 million or greater, there is a requirement to address value engineering. Again, we could do it through low opportunity or through studies. There are waivers. We won't generally go into that because that would have to have a truly extraordinary circumstance to do a waiver, but generally, we have a variety of tools in our tool box to address the value engineering requirement.

And federal funding component. It doesn't have to be 100 percent federal funding, but there has to be federal funding. So within Baltimore District, we have the Washington Aqueduct. They are 100 percent user funded. We have no requirement, though I'd love to do that for them, but we have no requirement to do value engineering for them. Though it's pretty simple as to why we have to do and what triggers it.

Okay. So that's my 30,000-foot overview. What questions may I answer for you-all?

CHAIRMAN INNIS: So, Sean, just by the last four slides, my understanding is that value engineering should be happening basically on all waterways projects.

MR. DAWSON: It should be.

CHAIRMAN INNIS: And by that statement, is happening on all waterways projects?

MR. DAWSON: It is occurring on Poplar Island. It has occur and it continues to occur on Poplar Island, which I notice was on your list.

CHAIRMAN INNIS: Okay. Thank you.

MR. DENNIS OAKLEY: Did I misunderstand about the dog kennel, that you all added \$500,000 cost to a dog kennel?

MR. DAWSON: We made a recommendation to the Secret Service to say here's how you have your energy -- it was their generator farm, I believe. Here's how it's configured and the components of it. We think that if you add this amount of money, you will see a more meaningful return on your life cycle cost, I think it was. It was a couple of years ago. And that was about \$480,000. And we laid out in detail here's the pros, here's the cons, here's the narrative, here's our calculations. And their design team went through all of that and said, "Yes, we concur that if we were to find this money and add it to this project, we would see that benefit." And they made that choice, yes, to find that money and add it to the project.

MR. OAKLEY: How much was the dog kennel?

MR. DAWSON: It was a series, it was their training facilities for all of their attack and bomb-sniffing dogs for the Secret Service in Beltsville (Maryland). That job was, if I remember correctly, it was around \$20 million. Maybe \$22 million.

MR. OAKLEY: Okay. Thank you.

MR. DAWSON: Yep.

Well, thank you. I appreciate the opportunity to speak to you today.

MR. POINTON: Thank you, Sean. Appreciate it. [Applause]

MR. POINTON: All right. It's 10:00, so we're going to take the break right now. And the Upper Ohio, which is next on the program, will be flipped and we'll do that the first thing after the break. So let's take a 30-minute break. We're going to start up promptly at 10:30. Thank you.

(A brief recess was taken from 10:02 a.m. to 10:33 a.m.)

MR. POINTON: Next up in our program, as we reconvene, is Mr. Steve Fritz from the Pittsburgh District. He is the program manager for their MEGA projects up in Pittsburgh. So he's going to give us a brief update on the Upper Ohio, give some follow-up on some questions you guys had from the last meeting, and then he'll just stay on the podium and go right into the Mon River 2-3-4 project status. Steve?

MR. STEPHEN FRITZ: Good afternoon, rather good morning, Chairman Innis, Major General Spellmon, distinguished guests. Can everybody hear me okay out there? Okay.

I want to thank you, the Board, for a couple of presentations now. I'm glad to be back presenting here for Upper Ohio and for the Lower Mon project. So I'll start right with the Upper Ohio project. I'm going to give you just some general specifics about the project itself.

The current working estimate for the project is about \$1.8 billion. That takes into account the maximum savings from that value engineering study that was done, so that incorporates all those opportunities.

The project itself is not budgetable and we're not getting General Investigations (GI) funds. And if we were getting GI funds, sufficiently, that's not enough to really support an efficient construction schedule. So we'd like to get that into the Construction, General (CG) program as quickly as we can so that we can start designing efficiently and getting to construction efficiently.

So the general scope of the project, I think this has been briefed before, at the Upper Ohio River Montgomery (Locks and Dam) facilities, replacing that auxiliary chamber that's a 56-foot-wide chamber with a 110-foot-wide by 600-foot chamber. And that's the same for all the locks.

There's an error on the slide. The 902 limit there is not correct. It's over \$3 billion for the 902 limit, and I'll get that corrected for the next presentation.

The funding status. Under the General Investigations (GI) program, we have received just over \$10 million, so we're getting, on average, about \$2.5 million a year under GI for PED, and again, that's not sufficient to support a design to get us to construction for the Montgomery locks in 2022. So any scraps out of CG funds, if we could get a new construction start, we'll be more efficient with getting this project off the ground.

CHAIRMAN INNIS: Steve, Rob Innis. Quick question. Is there a restriction on why you're only getting \$2.5 million from the GI fund?

MR. FRITZ: There's only so much money available in GI funds for Pre-construction Engineering and Design, and it's all allocated. And I don't know what the racking and stacking of that is, but that's all we've been allocated on average.

CHAIRMAN INNIS: I know you haven't got to it but I have got a second question. Can you explain the difference between what first cost is and fully executed or fully funded?

MR. FRITZ: Yes. So if you have a cost of \$1.5 billion for this project, if we were to get that all today and build that today, it would cost us \$1.5 billion. The fully funded estimate, what that does is that takes that construction and spreads it out over time. If it's a ten-year construction period, it inflates that \$1.5 billion cost to the midpoint of construction. So that \$1.5 billion then becomes \$1.8 billion. So it's an inflation factor to account for the project taking a certain period of time to be completed.

CHAIRMAN INNIS: But it's not an inflation factor due to not having cash. It's just the fact that you couldn't physically build it in that period of time.

MR. FRITZ: That's correct, sir.

CHAIRMAN INNIS: Okay. Thank you.

MR. FRITZ: I have hit on this a couple of times already; I'm not going to get too much into it. Get us to a construction new start, and we'll get this project off the ground.

MR. JAY RUBLE: Excuse me, Steve. This is Jay Ruble.

MR. FRITZ: Yes, Jay.

MR. RUBLE: You mentioned first construction contract could be 2020. What would that involve?

MR. FRITZ: So to get into a construction new start, you generally design that first smaller piece of the puzzle in GI PED, and we're looking at an excavation support wall or sheet-pile wall to be built out at Montgomery to support excavation for the new lockwalls. So that might be a \$10 or a \$20 million cost, I don't know the number, but it could be a \$10 or \$20 million investment that gets that door open for the Construction, General funds to start flowing.

MR. RUBLE: Okay. One follow-up. You mention there that Montgomery could contract in 2022. Did I read somewhere that you were talking about all three projects going on simultaneously?

MR. FRITZ: Yes. So the efficient construction schedule for this is that all projects get constructed at the same time. The funding may or may not support that; it depends on what happens with maybe infrastructure investments, with cost sharing with the Inland Waterways Trust Fund.

So the goal to get this project completed as soon as possible would be to construct all three of those concurrently. And that's what the costs reflect now. These costs that you're seeing do not include any costs for delayed construction because of funding. There's no costs in there associated with that.

MR. LEACH: This is Dave Leach at the ASA's office. Just for further clarification, you still require a new start; correct?

MR. FRITZ: That's correct, sir.

MR. LEACH: So, Jay, relative to your line of questioning, the first thing would be a new start from Congress. Okay?

MR. FRITZ: Now, all the while, while we're waiting for this to happen, there's still a risk of one of those facilities failing and us not being able to pass traffic, and that would hurt us all. So we're trying to get moving as quickly as I we can.

This is just a general snapshot in first costs so you see the \$1.5 billion out there at the end. But this would be an efficient funding stream for this particular project.

Yes, sir?

CHAIRMAN INNIS: Sorry. Rob Innis. On bullet No. 4 (of Slide 6), you said unlikely to achieve funding level under current constraints. I was just wondering if you could clarify why that is.

MR. FRITZ: So under the current constraints, that's the GI PED funding. That GI program just doesn't have enough funds in it to support efficient design for this project.

So I'm going to get into a little bit into the value engineering study. One of the questions that was asked at the last Users Board meeting was they would really like to know what the cost of each of the new facilities is. So this graphic here shows that and I'll just read them for you quickly. At Emsworth, the new value of that is \$578 million; at Dashields, it is \$547 million, and at Montgomery, it is \$677 million.

The price for each of those in the past was right about a billion dollars apiece at the fully funded numbers. So you can see that the costs have been reduced about in half almost in some cases. The value engineering study itself, it involved 19 or 20 well-seasoned employees that have had experience with navigation design. It involved four different centers of expertise, and they all got together and they worked for a period of about ten months, and they invested about \$165,000 to get that \$1.3 billion of savings.

So, you know, during the feasibility study, the feasibility study itself is kind of like a large value engineering. We're looking at all the different alternatives on how we're going to build this and then you screen it down into what's the NED (Net Economic Development) plan, the national economic development plan.

Also part of that feasibility study, we did a value engineering study on what was coming out of the feasibility, and we didn't put a lot of dollars to that. What we did is we looked at areas that we could look at during GI PED, which we have done with this study. We have looked at areas where there's a potential or an opportunity to add value to the project. And that's exactly what we did.

The Civil Works Review Board directed us to do that, and we did that, and we estimate the savings about \$1.3 billion.

MR. POWER: Tim Power with SCF. What type costs are you stripping out of these projects to get 40 to 50 percent cost savings estimates?

MR. FRITZ: So, my next slide will discuss that a little bit.

CHAIRMAN INNIS: Steve, Rob Innis. This seems very different VE than what we were just explained. You're talking about ten months, and we're talking about three to five days. So is there different scopes of VEs?

MR. FRITZ: I think it's more along the lines it's scaled. So there's a lot of things that were looked at as part of this value engineering study. You know, a VE study is required,

anything over \$2 million. You might be looking at building one wall and you value engineer that.

This, we're looking at building three different locks and dams, or three different locks at three different facilities. So comprehensively or when you break this down, there's a lot more to look at. So there was probably -- and I'm just going to estimate maybe 20 or 30, maybe 40 different alternatives that were looked at. I don't think 40 but maybe 30 alternatives that were looked at. And each one of those were scrutinized to determine whether or not they would provide value to the project.

So it took a little bit longer of a time. It was more like a design charette, if you will. A lot of the designers got together and they went through these brainstorming sessions and looking at other facilities that were constructed like Soo Lock or Charleroi Lock. What did we learn from those particular facilities? How we can capitalize on those investments to make good investments at the Upper Ohio.

CHAIRMAN INNIS: And then, Steve, the value engineering study that -- because this is huge dollars and incredible work for you guys, how are we sharing the findings from that study so that it's into the other projects, like at NESP or whatever we go forward with because it seems like there's huge value found here, and I don't want that to be lost on projects, especially if we try to standardize the locks more.

MR. FRITZ: I understand your question. I think the main component there would drive back to the Inland Navigation Design Center (INDC). So they're involved in all of our navigation designs now. So they're able to capitalize on the lessons we have learned from this and other things and incorporate those.

Like the filling and emptying system at the Ohio locks here. According to the value engineering study, that's going to replicate something that's happening at the Soo Lock, and that saved a significant amount of money for the Ohio River locks.

So that Inland Navigation Design Center is kind of maybe a repository for lessons learned or good ideas that we can implement.

CHAIRMAN INNIS: Okay. Yeah, because I was noticing, between this and Lower Mon, one of the things that was deleted in this study was it deleted the drilled foundations.

MR. FRITZ: Yes, sir.

CHAIRMAN INNIS: Whereas you just seemed to have completed that in the Lower Mon.

MR. FRITZ: Yes, we did.

CHAIRMAN INNIS: So my question is could that have been deleted from Lower Mon then too?

MR. FRITZ: Well, geographically and geologically, those are in two different locations. So in order to excavate at Lower Mon to get down to top of rock, you're talking to excavate maybe 40 or 50 feet of overburden where rock isn't as deep at these locations.

Again, it's not a one-size-fits-all. It's an application at a specific place for a specific feature.

MR. SMITH: So, Rob, this is Tom Smith. I don't want to overstate what we do, but we do have some other kind of systems running in place around all our projects. We have Communities of Practice both in engineering and operations where one of their intended purposes is to take lessons learned.

Now, when it comes to a very functionally specific thing, like inland navigation, there's an Inland Navigation Design Center that tries to do exactly what you described, is to take some of these best practices and techniques both in new design but then also just even in a maintenance procedure and share those.

So between those other kind of spinning wheels -- and I don't want to imply, though, that we get it right every time, but there are some other mechanisms that we kind of broadly have across the enterprise to try to make sure that we don't just have excellence on the Upper Ohio and the rest of USACE is in the dark ages or something.

MR. POINTON: There was a question in the back.

MR. MONAHAN: This is Mike Monahan. I guess one more thought on that, Tom. And I know we have been to the Inland Navigation Design Center. Is there any value in updating that, we have a lot of new Board members here, how that's being deployed today and how it ties in to the value engineering process?

MR. SMITH: Yeah, I know we had a meeting, but with all the new Board members, there may be some value in that.

MR. POINTON: There was a question in the back?

MR. DAWSON: Sorry, I just wanted to answer the question about --

MR. POINTON: Sean, can you take a mic, please, so that we get it for the record?

MR. DAWSON: Sean Dawson, Value Engineer, Baltimore District. I just wanted to address the comment about the ten-month versus the three to five days. On my slide where it showed the pre-study and post-study and workshop phases, that typically is that ten-month time. If you look up there, he'll say that it's pre-planning and analysis. All our studies go through the same thing. What he's calling the charette, that's that three- to five-day or more period.

So a typical value engineering study does cover multiple months. Just wanted to say that. Thanks.

MR. FRITZ: All right. If no other questions on that slide, I'll move on.

So this doesn't show very well on this screen here; I apologize. I know the Board members have a copy of this. This pie chart kind of breaks out where the cost savings are associated with the things that were looked at to specifically address the gentleman's question. So, you know, at Dashields and Montgomery, we looked at the way the dams were being built. At Dashields, we were going to put a gated structure between the existing dam and the new lockwall to pass that flow, but we have determined that we don't need to put a gated structure there. They're going to put a thing in there called a labyrinth weir, and that weir provides the same flow area as the amount of dam that we're already removing.

So that gated structure, that would have required a lot of long-term operation and maintenance as well as it's pretty expensive to build. Now this labyrinth weir, low maintenance, so it was a good solution for that particular situation, and it doesn't increase the water levels behind the dam and that's important. So that was about a \$55 million savings.

The lockwall construction. We were going to use the drilled shaft foundations and coffer box construction, which is successful and has been successful at Charleroi but they determined that we didn't have to do it that way. We were able to use some of the information we learned from Charleroi as well as through the value engineering study to build these hanging form systems and excavate all the way down to the top of rock here at these particular facilities and not have to build those giant coffer boxes. Excavating inside those coffer boxes is pretty difficult to do. There's a lot of internal bracing in those. So the idea there is that it's all pre-excavation now. It's not hindered by any of the things that we're doing, and the cost of the coffer boxes themselves is quite exorbitant. Probably a third, maybe even 40 percent of the overall costs.

And I can go through each of these if you want. Beneficial disposal, rather than take in all the demolition debris from the locks and dams up to an upland site, we're going to move that demolition debris to places of erosion or habitat for fish structures. So we won't be disposing of them upland anymore, so that's I think another \$55 million savings.

The floor slabs, the rock condition is good in these particular facilities, so we don't have to put a concrete floor slab in those. So we're going to leave the rock in there and put gravel on top of it, if you will. And that will be a stable floor for those particular facilities.

The miter gate heights. You know, we're always talking about standardization. Now, if we would standardize all the miter gates for every single one of these facilities, the gates would have to be exceptionally high in some instances where they don't have to be. So in order to make those work, you'd have to do more rock excavation. So they looked at things like that to reduce the size of those particular components so they fit that facility.

The guard wall redesign. The feasibility study recommended we were going to have floating guard walls out there at the new facilities and it's determined that we can put in coffer cells, if you will, and fill those as opposed to having a floating structure out there. And that's another savings of somewhere in the neighborhood of \$30, \$34 million.

Floating mooring bits. We had 18 floating mooring bits in every single one of these chambers. We don't need 18 floating mooring bits. We're going to put eight in each one of the chambers. So that reduces the cost by another \$15 million.

And then one of the biggest impacts is labor. We actually went in and we looked at specific staffing plans for each one of these facilities while it was going to be constructed, and by far, that was probably one of largest savings we had, of about \$260 million. But here at the feasibility level, you don't have a lot of detail about stuff, so things like engineering and supervision during construction, use percentages from things that are similar, and those percentages seemed awfully high when the value team went back and looked at these. So they decided to develop these staffing plans.

So those are the basic savings from the overall value engineering study.

CHAIRMAN INNIS: Steve, a couple of questions here.

MR. FRITZ: Yes, sir.

CHAIRMAN INNIS: The contingency was a big savings there, the \$200 million.

MR. FRITZ: Yes.

CHAIRMAN INNIS: And I notice that you put that some of it's taken out of the efficient funding and I assume you also shrunk the actual contingency of the project as the cost shrunk as well. Can we get a breakdown of the efficient funding and the construction?

MR. FRITZ: Right now, the current estimate does not have any inefficient funding in it. I don't have that with me, but I can certainly provide that to the Board.

CHAIRMAN INNIS: And then doing it in-the-wet, is it increasing the risk of completion time frame or do we feel that that's not an issue for the location?

MR. FRITZ: I think we have been building stuff in-the-wet long enough now that we have developed enough lessons learned that we have reduced our risks to a very tolerable level. There's still risks with building in-the-wet, but the offset is more time, more money to build those things to keep you in-the-dry.

You know, at some point, that building in-the-wet does move to building in-the-dry. Like at Charleroi, at the Lower Mon project, after you get the first lift of concrete, by the time you lift the concrete in it, you can pump the water out and you work in-the-dry inside that coffer box, you're going to get a couple of lifts of concrete in here in that wet condition, and then you're going to be able to work in-the-dry. So it's a combination of the two systems.

CHAIRMAN INNIS: Thank you.

MR. FRITZ: You're welcome.

MR. JUDD: Steve, this is Damon Judd from Marquette. A couple of follow-on questions, and some of these may be addressed by Tom, but, you know, as you look at the combination of the labor and the contingencies, I guess, what struck me was \$460 million is a big number of kind of soft costs and totally understand and appreciate the exercise of having to use some standard cost elements in terms of how you budget on the front end.

Tom, as you think about your comments about lessons learned and the center of excellence, as we look at the future projects, are we able to capture these new labor ratios efficiently and effectively? We have spent a lot of time talking about BCR. And I guess my concern is just making sure that we're not adding undue burden to projects on the front end where we negatively impact which projects we pursue, and then if we had reached this phase, the standard costs are always in arrears. You know, how do we leverage best practices here to make sure we're not overburdening the cost structure on these?

MR. FRITZ: Yeah, nothing that I can speak of without digging into it a little bit, sir.

MR. SMITH: Damon, again, I understand, I guess, on that curve of visibility as it relates to the contingency, the one that probably caught my eye just as much was on the labor efficiencies. Again, I think what you-all do is excellent in making sure you're not selling yourself short in terms of what your capabilities are.

Back to our priority, as Mr. Monahan was expressing earlier, how do we make sure we're driving value to the system. And, you know, this is really impressive work. It just makes you wonder, are we missing projects as a result of, you know, what's embedded in the cost structure here.

MR. FRITZ: And just to close out with Upper Ohio here, I mean, value engineering, this isn't going to end with the studies that we have done. Every contract that we let that's valued over that \$2 million is going to be scrutinized again to see if there's more opportunities for savings or a better way to build things, to get that same value for a lesser cost.

So it doesn't stop with this. It's going to continue. I have been with the Corps for almost 30 years, and I have been involved in probably four or five different value engineering studies, and most of the time, they produce valid fruit, and that's what we're going to continue to strive for. So there's more opportunities for savings here as well.

MR. RUBLE: Steve, this is Jay Ruble. Back on your miter gate issue, you listed \$30 million savings by not standardizing those sizes. Is that \$30 million after considering the future cost of having six separate sets of miter leaves?

MR. FRITZ: I can't answer that specifically. I think that's more of a first cost associated with that because the amount of rock excavation and the additional height of the gates, but I will look into that, sir.

MR. RUBLE: Yeah, I'd be curious what is the future cost of not having a common set for backup or future construction costs.

MR. FRITZ: Thank you for that question.

Any other questions?

If not, I'll move on to the Lower Mon project. All right. Some key points on the Lower Mon project. You were informed last time we were in the President's Budget for \$111 million. Hasn't been appropriated yet, but we hope for a good appropriation there.

In June of this year, we have fully funded the river chamber completion contract out there in Charleroi, so all the funds are on that contract except for things that pop up during construction. You know, modifications and things. So we have reduced our risk considerably there because we don't have to worry about another contract if funding doesn't come through for that.

When I get to one of these future slides here, I'm going to show you all the congestion that's going on out there in Charleroi, and that congestion has a potential to cost us additional money. Some, most of those costs are included in our contingencies, but it's a congestive work area. You'll see we have three different contractors working out there that that small space.

CHAIRMAN INNIS: Steve, before you leave that slide -- Rob Innis again -- you have \$1.09 billion in here as the funding to completion, but then you have \$1.23 billion including all contingencies. Are there contingencies in the \$1.09 billion?

MR. FRITZ: Yes.

CHAIRMAN INNIS: Okay. So are the contingencies -- are the differences just funding? Because the funding's been removed, now that it's funded for completion, right?

MR. FRITZ: Can you repeat the question? Sorry.

CHAIRMAN INNIS: The concerns around funding have been removed because it's funded to completion now? So what's the difference between the two then? What contingencies are in to make that \$200 million?

MR. FRITZ: The \$1.23 billion did include some inefficient, some funding inefficiency. That \$100 million savings is because we're going to come in about \$1.1 billion instead of the \$1.2 billion. That \$1.1 billion does include contingencies but not as many or not the inefficient funding contingency.

CHAIRMAN INNIS: Thank you.

MR. FRITZ: Some things we have to look at yet are the long-term closure on the Charleroi land chamber. We deferred that construction into the 2050s as part of a review of our overall project costs and to stay under that 902 limit.

No. 4 up there, it was already mentioned, but we finished all the drill shafts out there at Charleroi, that middle one. That's a pretty big accomplishment.

Nothing has changed at all on the project. The dredging, that's the next thing we plan to award, and that's expected to be the final task order for the dredging in November of this calendar year.

Some individual pieces of the pie out there. So this kind of shows a representation, the photograph here on the left, the image, of all the work that's going on out there at Charleroi. The only work that isn't going on there is the work in this blue area. That's already been completed. But all this other work is ongoing or under contract.

Up at the M22 to M27 contract, we have increased another four percent from the last time. It went from 75 percent up to 79 percent. The river chamber completion base, we're at 99 percent there. So for all intents and purposes, the river chamber base contract is completed. Concrete's all the way up to the top of the wall. There's just some minor things, that last one percent. You know, purging bug holes and things like that.

River Chamber Option No. 1, that's increased 41 percent. So they have got all the piling in now for option No. 1. They have got some of the tremie concrete placements in there. So everybody is moving well with Option 1, so that was a pretty big increase from the last report.

River Chamber Option No. 2, that's only gone up one percent since the last report.

Option 3, they progressed to 11 percent, so they're about 40 to 50 percent done with the walls for that coffer box out there. They're expected to wrap those up this calendar year.

The stilling basin work, Options 4 and 5, you won't see any movement on Options 4 and 5 until after that middle wall is done because that middle wall proceeds all the work with those other options.

The stilling basin itself, that's in this downstream area of the dam. That contract was awarded. They have been hitting a lot of obstructions out there in the excavation areas. So that's hold us up a little bit, and we had some high waters that held us up a little bit, but we're on track to continue an abutment support wall to be built in this area, and that's under construction right now as part of that contract. So I expect to see more movement on that by the next Users Board meeting.

Just some photographs to go through. River chamber completion, M11 drill shafts, it's difficult to see those in there, but the contractors are in there chipping away any materials that are not conducive to a good bond with the materials that can be placed on top.

The photograph over here shows a lift of the M23 contract, lift No. 3. So they put this concrete in at about 5-foot lifts. And any one Mon lift can have anywhere from 10 to 11 lifts placed in it to reach its top elevation.

And the reason they break it into those lifts is, one, it's manageable for the batch plant, but most importantly, it controls the heat. When concrete is curing, it creates a lot of heat, and that heat creates cracking so we try to limit those lifts so that we don't have cracking in the walls. And that's by design.

The bottom right-hand corner shows our area where we're placing the dredge material from the Pool 3 dredging. It's about a third of the way full right now.

Some more photos here. You can see the base contract up here. There's just some stuff sitting on top of the wall, but that concrete, like I said, is all the way up to the top now. You can see all the piling and the drill shaft casings in for option 1 and option 2.

Again, this is another photograph of M23. Part of the M22 to M27 contract. It just kind of shows down in the hole.

I'll do a better job next time seeing how these present. I know you can't see them that well here, and I apologize for that.

This is an overall view of the congestion that's out there. So we have the M22 to M27 contractor working in this area. We have the river chamber completion contractor working in this area. Then we have the stilling basin contractor working out here in this area.

The M22 to M27 contractor and the river chamber completion contractor have conflicts specifically right in this area where they're butted up against each other. When the stilling basin contractor starts to work over in this area, that's going to hinder the river chamber completion contractor a little bit from using the outside part of the wall to make their construction a little more efficient.

So we're working with them on a weekly basis to identify solutions to those issues. Our resident engineering staff and our engineering staff meet on a weekly basis with these contractors to talk about those individual conflicts to try to minimize those before they become something that's insurmountable.

Financial slide. There's really not much change from the last report. We're going to work task order No. 3 in the dredging. All the options on the middle wall, river chamber completion contract had been awarded, and all those drill shafts are done. So if there's no question on the financial slide, I'll move on.

No real changes on this slide from the last meeting. I did note that we had the Charleroi stilling basin completed in November of 2022 and my fiscal years got messed up. And I think I had that listed as Fiscal Year 2021 in a past report. I mean Fiscal Year 2022, but it's actually Fiscal Year 2023 because it's in November.

This is a metrics slide that we put together for quarterly briefings with our division, and they provide these up to our headquarters. The important thing to show on this slide is this number right here, this Cost Performance Index (CPI) of 1.06. What that CPI of 1.06 means, because it's above one, it means that we are under budget, and that's an important thing to recognize. And that number, when you plug it into the formulas, is very consistent with only needing that \$111 million to finish. So those two numbers are kind of working hand and hand together.

Some things here to point out. Dredging task order 3, we have talked about that. Middle wall completion, we expect it in February of 2021. So that's the next major milestone, to get that middle wall done so we can start actual work inside the chamber in Charleroi.

CHAIRMAN INNIS: Steve?

MR. FRITZ: Yes, sir.

CHAIRMAN INNIS: Rob Innis again. On that slide, the contingency on the plan, it didn't make sense to me that the contingency is significantly lower than the one with no contingency.

MR. FRITZ: So the way those curves work is when you spread out that contingency cost over time, it's also a contingency time. So you're gaining less per increment of time than you are if you're getting it done sooner.

I can provide a graphic to show you a graphic that I have on my computer. I don't have it here but it kind of shows why those numbers seem askew.

CHAIRMAN INNIS: Okay. That would be great. Thank you.

MR. FRITZ: And I can provide it for the Board next time as well if they'd like to see that.

And that pretty much wraps up the Lower Mon discussion. I want to thank you for supporting the \$111 million to get for the President's Budget.

MR. POINTON: Anything else for Steve?

Thanks, Steve.

Next up, we have Mr. Don Getty, he is here from our Nashville District. Actually, he's the project manager for Kentucky Lock, and he's going to give the Chickamauga Lock update as well, for Adam Walker.

Don, glad to see you, man.

MR. DON GETTY: Thank you, Mark. I confused about my job title sometimes too.

Good morning, Major General Spellmon, Chairman Innis, Users Board members, and distinguished guests. My name is Don Getty. I'm the project manager for the Kentucky Lock project, but I get to brief you both on Chickamauga and Kentucky today, and I'm going to start off with Chickamauga for Adam (Walker).

Things are going very well for the Chickamauga Lock project. We finished up the downstream lock excavation contract. We're working on a warranty issue for blast damage, but it's not a big deal. The big contract, lock chamber is ongoing, things are going very well from

it. I got a few pictures to show you. We have exercised all the options on this year. We plan to set for 9A. It's a small option that we're trying to get exercised before the end of the fiscal year.

And, lastly, our Post Authorization Change Report (PACR) is still under review by OMB, but we don't think there's any ramifications for that, and we're probably going to take that off the agenda for the next session.

A very busy slide showing you past, present, and future construction contracts for the project. I just want to highlight the one in yellow. That's our ongoing \$240 million lock chamber contract. We still have two other fairly large contract after the lock chamber. I think the next award is going to be in Fiscal Year 2021.

This is a colorized isometric showing how this ongoing lock chamber contract is broken up by scope and its options. So it's a base with 13 option contract. We have exercised through Option 8, so that's \$156 million out of the \$240 million. And the key point here is that, with efficient funding next year, we're going to exercise options 9, 10, and 11. That will just leave two small options, so this contract will essentially be fully funded if Chickamauga receives sufficient funding in FY 2020.

Just a few progress photos. So this picture is over a month old, and they made progress since then, but I just want to point out, Chickamauga is somewhat like Lower Mon. We have a long ways to bring the concrete in for a batch plant. We're doing that by conveyer system like Lower Mon. So they're having to go over the lower approach channel up high, so that's part of that conveyor system. They have to bring concrete in about a quarter of a mile over this conveyor system, which is not that unusual, but it's still a big investment by the contractor to do that and get ready to place concrete, which they hope to do by the end of this month. So by the end of the month, they should be placing concrete in the pit and we'll start seeing the walls come up.

Left-hand side just shows you – depicts some of the cranes, a lot of infrastructure involved in getting materials into this pit, this remote. Unlike Kentucky Lock, we can drive right down into it and Olmsted, when they were doing their locks, but not the case for Lower Mon or Chickamauga. So it makes life more difficult.

The right-hand picture just shows some of the extensive rock excavation. We're excavating right next to an existing dam, so we have to do that in stages so a very careful process to excavate that rock and backfill it with concrete and then excavate some more.

Financial slide, no changes from last time on the progress of the project and what I mentioned already.

Schedule slide, no change except we did add one month to lock chamber, and that was due to high water, so we did flood the cofferdam with high water this year, and that added one month to the contract.

Our status slide. The only thing I was going to say on this is, in the upper left-hand corner, we are yellow. We're not spending money as fast as we planned. Part of that is because

of high water. The other part is because our other contractor didn't finish as early as we expected him to. He finished on time but not as early as we planned on.

Upper right-hand corner, I think, is important. The contractor's on schedule, so even though we have slipped this a little bit by high water, he's able to regain that, and he's back on schedule. So I think that's important.

At the last meeting, Chairman Innis, you asked Adam about how to break out of -- on the risk cost scheduled risk assessment, the breakout of which items were likely versus unlikely, and Adam developed this slide to try to address those questions.

So the upper chart shows you the 79 items, so in their risk assessment, they had 79 risk items. How many of those were very likely, likely, possible, or unlikely? So that's the breakout of that.

And then the next bar chart or table is actual risk associated with those seven items. So we have probability and consequences. You put those together and you get risk, and you can see that, even though we had 12 likely risk items, we only had three high-risk items, and that causes consequences came in to play on that. So the top two charts are for costs. We also look at risks for schedule, and that's what the bottom two charts are. So we're hoping that this addressed your questions. Did that, Chairman Innis?

CHAIRMAN INNIS: Yeah, it did. My question around this one is, why is the schedule taking on higher risk in the cost ranking, because you would think, if you were scheduling, you'd try to reduce the risk as you scheduled forward, right, rather than -- especially if the cost rankings were getting efficient funding for it.

MR. GETTY: So the purpose -- this is an assessor risk, not necessarily to mitigate, and that's part of our risk management process. So we do try to take a look at the high-risk items and do what we can to mitigate those. But I didn't understand your question about the higher risk.

CHAIRMAN INNIS: So if you look at the two charts you got there, right, if you look at the scheduled rankings -- so I assume this is based on our schedule of things that we're attacking to finish Chickamauga, that's a higher risk than what the cost rankings were. So I was just trying to understand why we'd schedule to be at a higher risk than if we were going off of just costs.

MR. GETTY: Okay. You lost me on that question. I'm sorry.

CHAIRMAN INNIS: I guess I'm not asking it straight. So when you're scheduling your work, you're not taking off the high-risk items first, it looks like. Right? Even though, based on cost, those are lower cost items?

MR. GETTY: Let me go -- let's say this is our schedule -- this is a listing of the high-risk items from a schedule standpoint. And your question is why we're not taking these off. I don't understand.

CHAIRMAN INNIS: So if you look at the cost rankings, right, you got three high-risk and if you go with the schedule rank, you have eight high-risk.

MR. GETTY: Right.

CHAIRMAN INNIS: So my assumption there is that, based on the way we're scheduling the work to be done, we're actually leaving some of the high risk for later in the project?

MR. GETTY: Negative. So these are risk items at this point in time, and it's just how it's racked and stacked that you had high -- eight of these items were high-risk from a schedule standpoint. You might have had three totally different items that were high-risk from a cost standpoint.

CHAIRMAN INNIS: I understand. Thank you.

MR. GETTY: Did that answer -- okay. All right.

So I'm moving on. This is a slide that I hadn't shown before. This just shows you how we rack and stack from a cost standpoint these high-risk items and how much impact they're having on our contingencies. And so that's the bottom line that comes out of these cost schedule risk assessments. And this is the same type of chart, just on the schedule side.

So I think that if we're trying to reduce risk, we want to concentrate on these high-risk items when we're looking at mitigation features and factors.

In summary, I was going to say again, Chickamauga is going extremely well. No significant issues. The biggest issue they're working out now is getting this option 9A exercised and project positioned well. The lower chart showing you -- table showing you efficient funding that hadn't changed from the last meeting.

CHAIRMAN INNIS: Sorry, Don. The last meeting, we were at \$327 (million). I think even the slide earlier showed \$327. Now, we're showing \$367 (million), so that's about a \$40 million increase. And we have a fixed-price contract, so I was just wondering where that \$40 million --

MR. GETTY: I didn't think there was a change from the last meeting. That would be significant.

CHAIRMAN INNIS: Yeah, because I think even earlier in the slides, we had \$327 (million).

MR. GETTY: That, I can't answer. I'm going to take this back to Adam and let him address this question.

CHAIRMAN INNIS: Yeah, it's a \$40 million change there. So if we can get an answer why that is with -- especially with the fixed-rate contract.

MR. GETTY: Yes, I can't answer that. I'm sorry.

CHAIRMAN INNIS: Appreciate it.

MR. GETTY: But I will pass that on to Adam.

Okay. While she's bringing up Kentucky Lock, I was going to talk about value engineering briefly. And, Sean, I think I misrepresented my hand when you asked whether we had negative experience. I only had positive experience with the value engineering studies, and I have been involved in about ten of them on Kentucky Lock in my tenure. The benefits have always outweighed the costs on those studies, and that's a litmus test for me.

But during that matter, what my viewpoint is, value engineering is engrained in our culture. We all do it. We have to do it. And I believe in it, and it's made a big difference on Kentucky Lock. And Sean mentioned our value engineering change proposals where we encourage our contractors to use value engineering, and we have had two huge wins on Kentucky Lock. I have mentioned one last year, our downstream cofferdam contract. We had a value engineering change proposal where we eliminated underwater rock blasting and we saved \$3.7 million. Of that, we, the government, get 45 percent. The contractor gets 55 percent. So it's a win-win, a share situation. But that is a real savings that happens immediately. It's not projected savings.

So our contract costs on the downstream cofferdam went from \$67.2 million down to \$65.5 million like that as a result of that value engineering change proposal. So it makes a real big difference on our projects, and we do embrace it.

Okay. Getting back to Kentucky Lock. So things are going very well in the Kentucky Lock project as well. We talked a lot about high water, and I'm still going to talk a little bit about high water in this presentation. Our downstream lock excavation contracts is on schedule. Our post-authorization change report is not on schedule or is getting back on schedule. We had an agency technical review, and we had to do some rework as a result of that. That's what reviews are for. We've cleared all those hurdles and we're back on track, and we're looking to have this report up to our division at Headquarters in the next month.

Again, this is a slide showing past, present, and future construction contracts. We have two ongoing construction contracts in yellow, and two large ones to go on Kentucky Lock. And I'll talk about those in a minute.

Some progress photos on our ongoing downstream cofferdam contract. On the left-hand side, it shows the placement of our last two shells. Upper left was in high water. We just barely had water low enough to place that shell, and you can see the difference in the lower left contract and water's dropped and makes construction a lot more efficient.

Upper right-hand side shows you we start these shell placements about 7:00 in the morning. We typically finish about 8:00 at night. And we close the lock for those shell settings.

The bottom right shows you about what the project looks like now. As we set these shells, we had concrete on top of them, about 24 feet. So on the far left, you see that black plastic hanging down? That's our first shell, and we're almost to full height. We have about another three feet to go and we'll be full height on it.

So Mother Nature's been cooperating very well on the last few months, so I was really appreciative in letting us accelerate on this project.

Here are pictures of our other ongoing construction contract, the downstream lock excavation. The top two pictures shows you our bridges. We have three bridges across the locks. We're demolishing two of those. And, in fact, the downstream bridge is about gone now, but you can see that the bottom right-hand side, the right corner, they're removing -- the concrete bridge deck is now gone and some of the steel is gone.

We have a 50-day lock closure going on now, so we're leveraging that and doing this bridge construction while the locks are closed so we don't have any lock closure impact. So we're planning to be finished with this bridge demolition by the time we reopen the lock.

Bottom left-hand corner, we had to build a new maintenance building as part of this project. It's finished. And the middle picture, we're putting in a lot of large strand anchors to stabilize the lockwall as we excavate behind it. So that's a big part of this contract.

This, I think, is an interesting contrast between the 1940s versus what we're doing now. This bottom right-hand corner shows the opposite building was under construction in 1940. It got back-filled, and we're now exposing that as part of this contract, and that's the upper left-hand corner. It was taken a few weeks ago, showing we have exposed these columns that were built back in the 1940s. So we're seeing some progress on lock excavation as well.

And this is also part of this construction contract, but it's not paid with IWTF dollars. This is actually an O&M component as part of our construction contract. We're putting in some stoplog slots in our lower approach so we can put in a bulkhead for the lower miter gates. So we have got a dewatering poire dam that's been sitting on the bottom of the river since the 1940s. It's deteriorated, so we need a new way to provide that bulkhead.

So they're cutting slots in the concrete. It's a very involved process, using diamond wire saws. We do quite a bit on our projects. But one thing that's apparent to me is how great a quality this 1940s concrete is. It's still extremely competent, and that's the luck of the draw because we didn't know about alkali aggregate reaction back then, and now we try to mitigate for it when we build. But we were lucky in the aggregate we used that it didn't have it, so very competent concrete. Very involved job.

Bottom right-hand side, they have a dewatering box so we have to install this and cut this concrete below water, so we dewater that with a specially fabricated box. Quite an operation.

I want to talk briefly about high water. So the accounting is in and we have had about eight months delay of the downstream cofferdam as a result of high water. And our concern is how that's affecting the next contract. We were fortunate we designed a five-month gap

between the two contracts. So we have got five of the eight months covered, but if we didn't do anything, we were going to have three months of impact costs to our downstream lock excavation contract.

So I want to talk about this briefly. This is a drawing showing the work areas for our downstream lock excavation contract. In the lower left is the area that he's allowed to work in now when we first awarded the contract, but by May 15th of 2020, he was going to have to get into the downstream cofferdam area and start going work on the cofferdam and dewater and excavate there.

Well, the problem is, we can't meet that May 15th date. We got three months to catch up on, but it's only if we exercise these last options -- actually, three options. So we had the alternative of not exercising those options, not having the impacts, and put that in a future contract, but we wanted to exercise the options. And more importantly, the contractor wanted us to exercise those options.

So before we exercise those, we entered into discussions with the contractor and worked on a plan where instead of having access to this area on one date, we actually put in four phases, and we're actually going to let him in early on these first two phases because that will be finished early and then come in the lower portion later.

Now, that changed his work plan, but it got us that entire three months back, so we were able to mitigate that entire eight months by doing this. So we did that through a modification, a no-cost mod, and then we exercised those four options a couple of weeks ago. So this is a great new story.

I will tell you that it mitigates impacts to date. If we have high water over the next year, then we're going to be paying impact costs. That's just the nature of the beast. But we have mitigated to the date.

And the last point I'd make about this is that we often talk about the advantages of continuing contracts. In this case, a basic option contract was advantageous to us because we didn't have to exercise these options. It was in our best interest and the contractors to work on this and actually provide us some leverage. If we hadn't have had that, then we probably would be paying impact costs associated with high water.

So this is one case where based on the options actually helped us in the contract.

Okay. Getting on our status slide. A big fat red in the upper left-hand corner. That's due entirely to that high water, so we're not spending money as fast as we had planned to because of high water, but I think what's important is, upper right-hand corner, we're not having any schedule impacts, and what I just described to you helps explain why we're not having any schedule impacts from the high water.

A lot of changes to our schedule slide. Our downstream cofferdam contract, now, August 2020, and that's due to that high water, so we push that out eight months from when we originally awarded that contract. We finished our site demolition and utilities contract in

March. Downstream lock excavation contract got pushed out because we exercised these four options that added additional period of performance to the contract.

Our downstream lock construction, I think that got corrected to September 2024. And as I mentioned, our PACR economic update got pushed off to January 2020, when we expect to have a director's report on it.

And lastly, I will say that things are still going well. We still have a lot of risk in our downstream cofferdam, not just from high water but also because of geology and the constrained work environment. So it's still a high-risk operation going on for the next year.

Our economic update has gone well. Kentucky Lock has had very diverse and very robust traffic levels, so I think that's a good thing that's helping it from this economic update.

I was going to say something else about that. Escapes me. And, Chairman Innis, I think this is the same profile we had in our last -- you didn't quality control check on that, did you?

CHAIRMAN INNIS: No, it's incredible that you guys are able to do that to keep that cost with an eight-month delay. It just shows the work that you guys put into this, and we really do appreciate that, to see an eight-month delay and have no impact to cost is incredible and really helps out the waterways system.

MR. GETTY: I'm glad you brought that out. Since we're doing a no-cost mod, we are having to build land access to the contractor because he's going to have to work on the upstream cofferdam instead of the downstream cofferdam. And so we're going to have to spend about \$200,000 building that, but that's chicken feed compared to what the impact costs would be for a three-month delay. So, that's part of our contingencies.

MR. MONAHAN: Don, this is Mike Monahan. I have one question. If your Kentucky and Chickamauga were funded to complete, would that have any additional cost savings from the efficient funding profile or the timeline?

MR. GETTY: So it would on Chickamauga because their contingency still had a fairly significant driver, I think, on funding inefficiencies. Kentucky it is not a big-time driver. It is on the schedule side but not on the cost side, but say we had a one year lapse of funding, it would delay our downstream lock monolith contract award by one year. We already have some float in it, but it wouldn't change the cost much. It would just push out the completion date.

Did that answer your question?

MR. MONAHAN: Yes, sir. Thank you.

MR. GETTY: I wish I could have given you a different answer on that really, but I couldn't.

MR. DAVID EARL: Mr. Getty, David Earl. You mentioned that you're currently under an extended closure for construction. What's your anticipated opening date and do you think you'll make it?

MR. GETTY: Yes, sir. September 28th at 7:00 a.m. and we're going to make that. We don't see any reason that that would be extended at all. We did extend it by one week. That's because of the upstream painting on the miter gates and work could benefit from it, and we also benefitted from a construction standpoint. But all the stars lined up for that to happen, but we're not planning on that extending at all. I don't see any reason why that would be extended.

Any other questions? Thank you.

MR. POINTON: Thanks, Don.

Last but not least, we have got the last technical presentation, if you will, for the Olmsted Locks and Dam project. Mr. Steve Durrett from the division office will be handling that today.

Steve, all yours.

MR. STEPHEN DURRETT: All right. Good morning, everybody. Dewey Rissler is our normal project manager. He was unable to make it today, so he asked me to kind of fill in for him so I'll try to go through these. So if you have anything too complex, I'll take those back and get answers for you.

The good news which it seems like we have been showing for a while. The big thing here is down to key takeaways. We have had good river conditions up until last year, in which case we lost really three months of the 2018 construction season, and we were actually late getting started in the 2019 season. So we did have some significant impacts.

Now, I have a slide and I'll talk to what the contractor did during that time frame at a later slide. Here's the slide.

So just to reference you, the big black line is the actual river conditions at Olmsted. This line here is the average river conditions we have experienced over the last five years at Olmsted. The green line is the top of (Ohio River) Locks and Dam 53, the blue line is the top of the dam at Olmsted, and the red line is the top of the lockwalls at Olmsted.

So really our impacts started to occur shortly after putting the project into operation here. Once we exceed or get right below this red line, river operations become almost impossible at Olmsted. A lot is driven by velocities, kind of almost washes out of Olmsted from doing any work whatsoever in the river.

So you can see, we lost a lot of time. That has been the longest downtime we have ever had at Olmsted in the process. However, as we were coming down, the river conditions, even though they were extremely high, we still, with contractors, they would actually do some more because the river was basically barely moving. It was almost a pool situation and Olmsted. So the contractor did mobilize early in this downswing here of the river conditions and really started working a couple of months earlier than we thought he would actually be able to, which greatly helped get some things done at the dam itself.

Here are some of the things that got washed out in 2018. These are the activities that were still remaining to actually call the Olmsted Dam contract completed, and the contractor on that downswing of the river, the river started dropping. He actually started completing some of these. He actually completed the Wicket 32 repair that we broke when we raised the dam for the first time.

He kept working and he was doing a lot of things. He was doing spall repair. So instead of diving in 20 to 25 feet of water, he was diving in up to 40 to 45 feet of water, but he was able to actually complete some work on that downswing. So that was really a good initiative on the contractor's part.

He is on schedule to complete all of these activities on the dam this low water season, so we are on schedule. We met about four weeks ago with the contractor at the project site, and he doesn't see any issues with completing these activities in this low water season. The only thing on this list that won't be completed entirely is (Ohio River) Locks and Dam 53. We have 53 demos as two phases. Phase 1 was we were hoping that the contractor would be able to take both chambers out at 53. He's only going to be able to get to river chamber 1 out at 53 before his contract actually expires. It's a cost reimbursable contract. We are going to take the remaining work, and we are going to apply it to the Phase 2 demo, which is really the abutment on the other side of the dam.

So overall impact, the schedule will not be hurt, but the contractor himself, the cost reimbursement contractor will not be able to totally demo. We're working with him to make sure everything he does is done with sailing lines in consideration. So we don't want to take a big chunk at upstream and leave this big thing protruding out in the river so he's kind of working himself longitudinally back into the bank as he goes down. So the goal here is to not have any protrusions when he finishes his work come the end of this calendar year.

This has been our execution and recovery plan, so we are continuing to work. Like I said, we got to demo chamber 1. We're going to move some of that work into our Phase 2 demo, which is shown here. And these are still the contracts we still have to put out on the Olmsted project to actually call the project completed.

So we still have the 52 demo at Phase 2. The landside demo, this is the structures on the bank. We are still working with one of the communities at 52 to maybe they may want to take those on. That's still in negotiations with the district; that we may just turn those over and not have to actually demo them.

And the county road, so some of these are part of our agreements we had in place back in the '80s, so we agreed that, back in the '80s, when we started Olmsted, that when we finished the job, we'd repave the county road that we actually had to build in order to move in to the Olmsted site itself.

So these are all fairly relatively small contracts. And the impact to the budget, this is what we have asked for. We had gotten completion funds in 2015, I believe, to complete Olmsted. Losing almost eight months on our schedule at Olmsted has really extended our contract, so we are going to need this extra \$63 million for Olmsted. Ideally, efficiently funded is spreading it out over this sequence and funding stream. This is really asking for

contingencies that we never received in the first place. So we're not changing the overall total project cost of the project. We, in this particular case, we were aggressive in our budget request, thinking, oh, we got all these contingencies out there. We're not going to ask for them all. We asked for very little contingencies when we asked for our last budget request. Lesson learned: Don't do that, particularly when you're working in some river environments, particularly like on the Lower Ohio.

So this is really just asking for contingencies. \$319 million of contingencies. We're just asking for about \$63 million of that \$319 million of contingencies that we never were funded in the first place.

This is just the overall project funding side. Like we talked about before, I have covered a lot of this. Just a point to know, two or three years ago, we reprogrammed \$30,000 out of Olmsted to the Soo Lock. Soo Lock has paid that money back to Olmsted so that we're balancing those books. We tracked these funds all the time. So the Soo Lock has made the payback of the money that Olmsted borrowed or Olmsted lent to the Soo Lock.

So those funds have been returned to the Olmsted project. We have kind of talked about most of the other stuff is ongoing. The next step is we're really looking to move towards the awarding of 53 Phase 2 demo and the award of the landside demo at 52 and 53.

The workboat the probably the largest piece of acquisition that we have to do besides the 53 demo, and that's going to be proceeding in the first quarter of FY 2020.

Our schedules there are only a couple of minor changes. Construction completion, obviously, has changed because of the washout from the high water event that we had, and the river dike contract has been pushed out but this is not critical path and it got affected as well by the high-water event that we had out there. Otherwise, none of the other total project dates have actually changed, and we're still moving towards project completion on time.

Our score card, again, expenditures, we're tracking fairly well-being a cost reimbursable contract. Safety has been going extremely well at the project site as well, and we're still looking, but haven't changed any of our operational or completion dates on the dam contract itself.

Again, just our funding trends. Nothing much has changed relative to this, although this slide is in June of 2019. This is always like a month -- three months to 15 months back. It's a 12-month look, but it's always looking at three to 15 months back because of the way the contract is actually costed and paid out.

Again, we talked about this before. This is the funding stream. We're looking forward to complete the Olmsted activities, the project itself. We have enough funds on board that the dam itself will be completed. That contract will be closed out and completed early in the second quarter of FY 2020. So we have enough funds for that. It's the other remaining activities and doing the other project features, such as demoing the remaining part of 53 and 52.

This is a view with the dam is back up. It was all there after we headed up for a week and it vanished for nine months and it's still there and it's back in operation and working well.

Questions?

We are still actively in the process of disposing of all the equipment at Olmsted. Just to kind of summarize, we have got a few pieces of equipment that we have purchasers for. That money will go back on to the contract once we sell this equipment. MVD (Mississippi Valley Division), the Rock Island District, is going to buy one of our workboats for about \$8 million, and those funds won't come back on until we actually sell the boat, which will not be until we finish the dam contract.

So we're looking to recapitalize on some funds for some of those things, and the Olmsted project is feeling that they can probably acquire another -- somewhere after that \$8 million -- get somewhere between \$2 to \$5 million more may come back on the project as well. And if their funds aren't necessary, they'll roll back into the trust fund once the job is closed down.

MR. POINTON: Those lists were provided in the read-aheads. We provided those lists of that surplus equipment for the Olmsted project.

MR. DURRETT: Okay. I didn't know if they were in the read-ahead or not. Okay.

MR. MONAHAN: This is Mike Monahan. No questions but just a comment that I once again want to commend the Corps on the focus on safety not only on the Olmsted project but all the projects. I can't think of anything more important and we watch those numbers, so thank you.

MR. DURRETT: Thank you.

Anything else?

Thank you. Have a great day.

MR. POINTON: Thanks, Steve. We're a little behind schedule here, but I don't see that as being problematic. Next on the program is the public comment period. We had two individuals who wished to make a public comment. Jim Stark from the Gulf Intracoastal Canal Association (GICA) is first up. There you are, Jim.

MR. JAMES STARK: Thank you, Mark.

I'm Jim Stark. I'm the president of the Gulf Intracoastal Canal Association, the trade association representing about 200 members that operate on the GIWW from Brownsville, Texas, to the Panhandle of Florida and up into the various tributaries.

I'm here to talk about one of those tributaries and one of those extra waterways that we operate on, and that's the Port Allen Route and specifically the Bayou Sorrel Lock. I was unable to attend the full meeting in May in New Orleans, but I was on the site visits to IHNC Lock and Bayou Sorrel Lock with several of the members.

During the site visits and as I understand it at the meeting that followed the next day, the issue of Bayou Sorrel being restudied perhaps in another GRR or whatever name you want to put on it, but the replacement for that lock being, again, opened up for study, based on the fact that the previous report was based on flawed information regarding the actual delays that our towboats and barges experienced at that lock.

As I understand it at the last meeting, the Board strongly recommended that that happen. I'm here today just to remind you of that and urge you to move the district forward, if you can, on that study. Thank you.

MR. POINTON: Thank you, Jim.

Next on the public comment docket is John Doyle from Jones Walker.

MR. JOHN DOYLE: Thank you, Mark. John Doyle with the Jones Walker law firm. We have the honor of supporting WCI and a number of other interests on the inland waterways system. Just an update for you on some information related to the Inland Waterways Trust Fund. You have gotten in your materials the status of the IWTF and Mark reported that as of July 31st. Treasury comes out with trust fund reports every month, and on Monday of this week, they came out with the August 31st report. That August 31st report changed the posture of the Trust Fund in a way that we need to be aware of.

If we look at just the July 31st numbers, it looks like the Trust Fund is going to greatly exceed from a revenue perspective what we have seen in the last four years. The August 31st report brings things much more into measure with last year particularly in terms of performance.

So what Treasury does is they promulgate on a monthly basis the end of month results of the Trust Fund for the preceding month. Most of those reports are based on estimates, not real data. Periodically, during the course of the fiscal year, Treasury goes back and actually does a check of actual receipts against estimated receipts and then, in the following month, makes the adjustment.

So the August report, the one that just came out, the 11-month report reflects that adjustment made by Treasury, and that adjustment was the largest downward revision that I can recall seeing in the time that I watched the Inland Waterways Trust Fund status.

So, in essence, Treasury added ten months in its estimating side on the positive side and deducted \$13 million in the offset side. And that's at least twice as large a downward adjustment as I have ever seen before, but what it does is it brings us back in line at the 11-month period to about where we were at the 11-month period last year (2018), which means that if the September performance for FY 2019 -- this month's performance tracks the actual performance that we saw for September last year, we should be close to the \$116.8 million revenue figure that we saw for FY 2018. So, Rob, your \$115 million number should still be a good number.

So just to let you all know that and make sure everybody is aware as we go forward and have conversations that we need to have with each other and others.

MR. POINTON: Thank you, John.

And we're going to move to the closing comments at this point, so I would open it up for General Spellmon as the executive director.

MAJOR GENERAL SPELLMON: Just a couple of things.

As we go to the chairman and the Board members here, just for our next session, Mark and Tom, that I wrote down, I think it's been a while since we have had one of our economists come in. Let's do a deep dive, if we can, on BCR and have that conversation and just pull that out from behind the curtain, particularly for our new members. I think there might be some value there.

This didn't come out in the Board meeting today, and I'd welcome feedback from the Board whether or not this is appropriate, but sometimes you hear things in the hallway or hear things at dinner that would never get to me unless someone brought them up, and that has to do with some decisions that are being made by our operational project managers out in the field and a scenario is we have some traffic coming in but one of our OPMs (Operations Project Manager) made a decision to close a lock because something had to be done, but there wasn't great communication with our partners.

I don't know if that's a one-off or if that's something that happens more routine than not. I would welcome feedback from the Board if that's something that we want to bring – what right looks like before the Board, and if that's not happening out in the field, then we need to know that so we can take corrective action. But, again, it's just something I heard in the last day or so.

And my last thing, there was one introduction I want to make, it's been 17 months in the making, about a year and a half. We do have our permanent Nav Chief on board, Mike Ott. He's going to be a great addition to the team.

Rob, you remember him from our days out in Portland, but I had an opportunity to work with him extensively during my time in Northwestern Division. Mike is going to be a great addition to the team, and we're glad to have him on board and look forward to introducing him to the Board members.

I think that's all I have got. Thank you.

MR. POINTON: Rob, we'll roll it over to you and the Board members for any of your closing remarks.

CHAIRMAN INNIS: Sure. First, I'd just like to thank everybody for a great meeting and great information. One of the things I'd like to ask for is that the contingency planning that we saw for Chickamauga Lock, if we could see the breakdown of the contingency like that for all those projects, that would be really helpful going forward.

I'd also like to thank the USDA for presenting that study. It's fantastic and really shows our points, so I appreciate that. The more information on value engineering is really helpful, too, and that it's being executed. So from that, I look forward to continuing this and see you in the next meeting.

Any comments from other Board members?

MR. JUDD: Damon Judd. I'll make one comment that's on a little bit of a different track than where we have been spending a lot of our time today, but I think Chairman Innis, with his opening comments, referenced the work that Marty (former Chairman Martin Hettel) has done in terms of establishing the partnership here. And our discussion here and the projects we reviewed really focused on partnership as it relates to capital projects, but I think we would be remiss with some of the things we have been dealing with as an industry this year and as the Corps with high water impacting a number of these projects, not to at least mention some of the work or emphasize the importance of partnership as it relates to working on the problem areas that pop up. As of yesterday morning, there were 130 boats sitting at Victoria Bend on the Lower Mississippi River. We have had issues on the Upper Mississippi as water fell out as well and on the Ohio. I know there was a lot of work that went on behind-the-scenes or my team passed along to (Major) General Toy (Great Lakes and Ohio River Division Commander) and Mr. Eddie Belk (USACE Headquarters, Chief of Programs Integration Division), in particular, to redistribute funds and get funds available to get dredging going. One-hundred-thirty boats may not sound like a big number. I'm from Paducah so traffic of five cars is a lot of traffic. Folks here in D.C. have a little bit of a different barometer. But just rough estimate, that's probably around 2,500 barges. So truck capacity? That's about 170,000 trucks sitting at a traffic jam on the Lower Miss. And so I can't emphasize enough how important that partnership is and trying to work proactively to address problem areas, especially in a year where we have had significant disruptions to navigation from Mother Nature. So I appreciate that, General, from you and your team.

MR. OAKLEY: There's also about 50 tows going northbound.

MR. MURPHY: This is Spencer Murphy.

First, thanks for a great meeting. I enjoyed it for my first time out. Two points: One, I want to piggyback on what Jim Stark mentioned about Bayou Sorrel Lock. And particularly as the capital investment strategy team starts doing their work and digs in the projects, the meetings that I have attended as an observer, this project has come up a couple of times and it was discussed among the Corps and the Board that, as Jim mentioned, that the information that the Corps is using about traffic flowing through that lock is incorrect. And so I just want to make sure that, as the capital investment strategy team does their work, that they are able to try and use the best information that we have.

And so I think for those of us that operate in that part of the world, they'll tell you that is a very important lock. There's a lot of traffic that goes through there. And so it needs to make sure that it gets a fair shake as we do the racking and sacking of projects.

And then, secondly, to the General's question about communication about lock closures of any type, whether it's for a few hours or for a couple of months, as we're going to see next

year, I think it all depends, but I can't emphasize enough how important it is as operators and as shippers that we get the best information as soon as we can whenever there's a known outage coming, even if it's a small one. Particularly if it's a large one, but even in a small one. A matter of hours can lead to a matter of days for a shipper.

So, please, to the extent that you can send that message throughout the Corps team, we really appreciate it, because our customers are asking us every day, "Where is my tow? Where is my cargo? What's going on? Why is it not moving?"

And the more information we get from you guys, the more we can share with the customer and they can make informed decisions and make sure that they don't end up stuck behind a huge traffic jam when they can make alternative arrangements if they have that information sooner. Thank you.

MR. POINTON: Dennis? Robert? Jay?

You all good?

Thank you.

Before we adjourn, I'd just like to recognize Ken Lichtman, who retired in July. He's actually in the audience here, so he's looking from the opposite perspective today. I'd like to recognize him for all the help he's done over the last several years as basically my right-hand man doing this stuff. [Applause].

And you might have noticed, there's a few other Corps employees that are now helping. Allie Schafer has been helping a lot with this meeting. I don't want to call her my right-hand man.

And, also, Forrest Vanderbilt and Steven Riley, they're all pitching in to help get this stuff underway since I can't do this as a one-man show.

Do we have a motion to adjourn? David?

Second? Second, Rob.

All in favor?

MEMBERS: Aye.

MR. POINTON: Any nays? None.

Meeting adjourned. Safe travels, everybody.

(At 11:57 p.m., the above meeting concluded.)

Appendix A
List of Participants
Inland Waterways Users Board Meeting No. 92

Inland Waterways Users Board Meeting No. 92
Springfield, Virginia
September 12, 2019
List of Participants

<u>Last Name</u>	<u>First Name</u>	<u>Affiliation</u>
Babb	Thaddaeus	Oklahoma DOT - Waterways
Balzano	Richard	U.S. Dept of Transportation, Maritime Administration (MARAD)
Beck	Kristin	LafargeHolcim, Inc.
Brand	Ms. Lauren K.	U.S. Dept of Transportation, Maritime Administration (MARAD)
Calhoun	Richard R.	Marquette Transportation Company
Clouse	Paul D.	USACE, HQ Operations & Regulatory Div, Navigation Ops
Dawson	Sean F.	USACE, Baltimore District
Doyle	John S., Jr.	Jones Walker LLC (WCI)
Durrett	Stephen G.	USACE, Great Lakes and Ohio River Div
Earl	David A.	Marathon Petroleum Company
El-Naggar	Kareem S.	USACE, Great Lakes and Ohio River Div
Frantz	David A.	USACE, HQ Operations & Regulatory Div, Navigation Ops
Fritz	Stephen R.	USACE, Pittsburgh District
Getty	Don B.	USACE, Nashville District
Gilbert	Ms. Heather	National Oceanic and Atmospheric Administration (NOAA), Office of Coast Survey
Harden	Ms. Phyllis	Pine Bluff Sand and Gravel Company
Harkness	Andy	USACE, Inland Navigation Design Center
Hearn	CAPT Rhys A.	USACE, Headquarters, Civil Works Executive Office
Hettel	Martin T.	American Commercial Barge Line LLC (ACBL)
Hoey	Ms. Jeanine M.	USACE, Pittsburgh District
Innis	Robert J. "Rob"	LafargeHolcim, Inc.
Judd	Damon S.	Marquette Transportation Company
Kearns	James A.	Jones Walker LLC
Krug	Colby K.	Department of Transportation
Leach	David	HQDA, Assistant Secretary of Army for Civil Works
Lichtenstein	Daniel	Insights Analytics
Lichtman	Kenneth E.	Private Citizen
Lientz	Ms. Katie	U.S. Dept of Transportation, Maritime Administration (MARAD)
Liske	Kyle M.	U.S. Department of Agriculture (USDA)
McDonald	Douglas	U.S. Dept of Transportation, Maritime Administration (MARAD)
Monahan	Michael J.	Campbell Towing Company

Murphy	W. Spencer	Canal Barge Company, Inc.
Nelson	Dr. Kelly P.	U.S. Department of Agriculture (USDA), Agricultural Marketing Service
Oakley	Dennis	Bruce Oakley, Inc.
Pfeifer	Joseph Scott	US Air Force (USAF)
Pointon	Mark R.	USACE, Institute for Water Resources
Power	Timothy C.	SCF Marine, Inc.
Rich	Robert D.	Shaver Transportation Company
Riley	Steven D.	USACE, Institute for Water Resources
Ruble	James "Jay"	Crouse Corporation
Schafer	Ms. Alexandra "Allie"	USACE, Institute for Water Resources
Short	COL Andrew J.	USACE, Pittsburgh District
Shuman	Ms. Catherine M.	USACE, HQ, Great Lakes & Ohio River Division RIT
Smith	Ms. Deidre	Arkansas Waterways Commission
Smith	RADM Shepard M.	National Oceanic and Atmospheric Administration (NOAA), Office of Coast Survey
Smith	Thomas P.	USACE, HQ Operations & Regulatory Division
Sparger	Adam	U.S. Department of Agriculture (USDA), Transportation Services Division
Spellmon	MG Scott A.	USACE, Headquarters, Civil Works Executive Office
Stark	James	Gulf Intracoastal Canal Association
Stewart	Vance	HQDA, Assistant Secretary of Army for Civil Works
Toohey	Michael J.	Waterways Council, Inc. (WCI)
Vanderbilt	Dr. Forrest B.	USACE, Institute for Water Resources
Whalen	Ms. Karla	U.S. Department of Agriculture (USDA), Agricultural Marketing Service
Webb	Jeff	Cargill, Inc.
Whittle	MG Robert F. Jr.	USACE, Great Lakes and Ohio River Div
Wilson	Jeff	LafargeHolcim, Inc.
Winters	Hicks	LafargeHolcim, Inc.
Zea	Tracy	Waterways Council, Inc. (WCI)
		USACE = U.S. Army Corps of Engineers

