

Minutes
Inland Waterways Users Board Meeting No. 87
Sheraton Pittsburgh Hotel at Station Square, Waterfront Ballroom
300 Station Square Drive
Pittsburgh, Pennsylvania 15219
May 25, 2018

[Note: The following minutes of the Inland Waterways Users Board meeting No. 87 were approved and adopted as final at Inland Waterways Users Board meeting No. 88 held on August 28, 2018 at the Luther F. Carson Four Rivers Center located at 100 Kentucky Avenue, Paducah, Kentucky 42003.]

The following proceedings are of the 87th Meeting of the Inland Waterways Users Board held on the 25th day of May 2018, commencing at 8:00 a.m. at the Sheraton Pittsburgh Hotel at Station Square, located at 300 Station Square Drive, Pittsburgh, Pennsylvania 15219. Mr. Martin T. Hettel, Chairman of the Inland Waterways Users Board presiding. Inland Waterways Users Board (Board) members present at the meeting included the following:

CHAIRMAN MARTIN T. HETTEL, American Commercial Barge Line, LLC

MR. DAVID A. EARL, Marathon Petroleum Company

MR. MIKE FEWELL, Dow Chemical Company

MR. ROBERT J. INNIS, LafargeHolcim, Inc.

MR. DAVID KONZ, Tidewater Barge Lines

MR. G. SCOTT LEININGER, CGB Enterprises, Inc.

MR. DANIEL P. MECKLENBORG, Ingram Barge Company

MR. TIMOTHY M. PARKER, III, Parker Towing Company

MR. CHARLES M. "MATT" RICKETTS, Crouse Corporation

MR. WILLIAM M. WOODRUFF, Kirby Corporation

Board Member MR. MICHAEL J. MONAHAN, representing Campbell Transportation Company was unable to attend the meeting. MR. PETER J. STEPHAICH of Campbell Transportation Company attended the meeting on behalf of MR. MONOHAN.

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:

MS. BRANDEN LEAY CRIMAN, Director, Inland Waterways Gateway Office, Maritime Administration (MARAD), U.S. Department of Transportation, St. Louis, MO.

LT. CMDR. MATTHEW M. FORNEY, OMAO (Office of Marine and Aviation Operations)/DOD Liaison, Office of Coast Survey, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, Silver Spring, MD.

MR. KUO-LIANG (MATT) CHANG, Economic Analyst, Transportation and Marketing Division, Agricultural Marketing Service, U.S. Department of Agriculture (USDA-AMS/TMD), 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:

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, VA.

MR. THOMAS P. SMITH, Chief of Operations and Regulatory Division, Headquarters, U.S. Army Corps of Engineers, Washington, D.C. representing Major General (MG) SCOTT A. SPELLMON, Deputy Commanding General for Civil and Emergency Operations, U.S. Army Corps of Engineers, Washington, D.C.

MR. KENNETH E. LICHTMAN, Executive Assistant and Alternate Designated Federal Officer (ADFO), Inland Waterways Users Board, U.S. Army Corps of Engineers, Institute for Water Resources, Alexandria, Virginia.

Program speakers in scheduled order of appearance were as follows:

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, VA.

MR. STEPHEN G. DURRETT, Regional Programs Director, Great Lakes and Ohio River Division, U.S. Army Corps of Engineers, Cincinnati, OH.

COLONEL JOHN P. LLOYD, District Engineer and Commander, Pittsburgh District, U.S. Army Corps of Engineers, Pittsburgh, PA.

MR. ROBERT P. CASEY, U.S. Senator from the State of Pennsylvania (*via videotape*).

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

MR. MARTIN T. HETTEL, Chairman, Inland Waterways Users Board.

MS. SHERYL CARRUBBA, Acting Chief, Navigation Branch, Operations and Regulatory Division, Headquarters, U.S. Army Corps of Engineers, Washington, D.C.

MR. JOSEPH W. ALDRIDGE, Program Manager, Program Integration Division, Headquarters, U.S. Army Corps of Engineers, Washington, D.C.

MR. MICHAEL P. JACOBS, Cost Engineering Mandatory Center of Expertise, U.S. Army Corps of Engineers, Walla Walla, WA.

MR. DEWEY W. RISSLER, Olmsted Locks and Dams Project Manager, U.S. Army Corps of Engineers, Louisville District, Louisville, KY.

MR. STEPHEN R. FRITZ, Mega Projects Program Manager, U.S. Corps of Engineers, Pittsburgh District, Pittsburgh, PA.

MR. DON B. GETTY, Project Manager U.S. Army Corps of Engineers, Nashville District, Nashville, TN.

In response to questions raised during the proceedings, additional information was provided by the following individual:

Mr. KAREEM EL-NAGGAR, Assistant Chief, Operations Division, Great Lakes and Ohio River Division, U.S. Army Corps of Engineers, Cincinnati, OH

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

PROCEEDINGS

MR. MARK R. POINTON: Good morning ladies and gentlemen. Let us take our seats and we can begin this morning's meeting. My name is Mark Pointon. I am the current Designated Federal Officer (DFO) for the Inland Waterways Users Board.

I would like to welcome you to the 87th Meeting of the Inland Waterways Users Board held this morning in the beautiful city of Pittsburgh, Pennsylvania. We were here a few years ago in April 2016 [Inland Users Board Meeting No. 78 was held in Pittsburgh, Pennsylvania on April 1, 2016].

I would like to thank the Port of Pittsburgh for their hospitality while we have been here, for last night's social reception and for the coffee service for this morning's meeting. Thank you to the Port for their participation in our event today and yesterday.

The weather was great yesterday. I had nothing to do with that. I don't know if the Pittsburgh District did either, but they did a great job if so. My thanks to Colonel John Lloyd, Commander of the Pittsburgh District and his staff of the Pittsburgh District for their outstanding support of this morning's meeting and yesterday's site visit to the Monongahela River Lock number 4 at Charleroi, Pennsylvania.

Before we start this morning's meeting, I am obliged to read for the record that the Inland Waterways Users Board was created pursuant to Section 302 of 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 "Government in the Sunshine" meeting, and as such, it is open to the public. As you can tell by the great attendance for this morning's meeting, there is a great deal of interest in the issues that affect the inland waterways system and the activities of the Inland Waterways Users Board here in the Pittsburgh area.

The U.S. Army Corps of Engineers is the sponsor of the Board and provides for the Executive Director, the Designated Federal Officer and for all normal activities.

No one has submitted any request to make a public comment. If anybody wishes to make a public comment at the end of the meeting, please see me at the break or slide me a note or something during the proceedings, and we will get you in there. There have been no written comments submitted for the record either.

These proceedings are being recorded, and a transcript will be available shortly after the meeting. I would remind everyone around the table to please identify yourself and speak into the microphone so that we can get a proper recording of the meeting. With that, I am going to ask Mr. Stephen Durrett, Regional Business Director of the U.S. Army Corps of Engineers, Great Lakes and Ohio River Division, to provide us some welcoming remarks.

MR. STEPHEN G. DURRETT: Thank you, Mr. Pointon. My name is Stephen Durrett. I am currently the Acting Programs Director for the Great Lakes and Ohio River Division. I am filling in for Mr. David Dale (former Programs Director of the Great Lakes and Ohio River Division) who will officially be retiring at the end of next Friday (June 1, 2018). I would like to welcome the Inland Waterways Users Board to the city of Pittsburgh and the Great Lakes and Ohio River Division.

I want to thank Colonel Lloyd and the Pittsburgh District for the outstanding site visit yesterday and the other activities (on 24 May 2018, a briefing and tour were conducted of the active construction project at Charleroi Lock and Dam on the Monongahela (Mon) River).

I understand you had a great site visit to Lock and Dam 4 at Charleroi, Pennsylvania. I am sorry I was not able to join you yesterday. I had intended to, but my wife's "honey-do" list last week left my back in not very good shape this week. I spent yesterday laying on the hotel floor.

The Pittsburgh District operates some of the oldest inventory we have of navigation structures in the Corps of Engineers. The District does an outstanding job of operating and maintaining that inventory. You saw some of those structures yesterday and some of the rationale for the Lower Mon project. The Pittsburgh District and the Great Lakes and Ohio River Division are both very well committed to completing the Lower Mon project within the timeframe we currently have scheduled that you will see presented at today's meeting.

Again, I want to welcome everyone to the city of Pittsburgh and the Great Lakes and Ohio River Division. Thank you.

MR. POINTON: Thank you Mr. Durrett. Colonel Lloyd, would you like to make a brief comment or two. Thank you.

COLONEL JOHN P. LLOYD: Thank you Mr. Pointon. I appreciate the weather comment. I control a lot of things, weather is not one of them, which is obvious from the amount of rain we have had recently and ice this past winter. I do want to thank the members of the Inland Waterways Users Board for coming here to Pittsburgh. I know you were here a couple of years ago. It is a great honor to host the group here and take you out to show you our projects and what we are doing here in Pittsburgh, which is vitally important to the national security, the nation's economy, and many other things.

I have been the District Commander here in Pittsburgh for almost two years now. Coming from the tactical side of the Army, I will tell you, you come into the job not knowing a lot about inland navigation, and there is a quick learning curve. Some great people along the way have brought me along and showed me the importance of the inland water system. I would like to recognize Ms. Mary Ann Bucci (Executive Director of the Port of Pittsburgh Commission) and the other members of the Port of Pittsburgh for helping me further develop the close relationship between the Pittsburgh District and the inland navigation industry.

I had the great opportunity a couple of weeks ago to go out and visit U.S. Steel. Generally any group I talk to, I really talk about the history of Pittsburgh and the importance of inland navigation system. Going back to 1754, one of the early colonels was out doing surveying of the inland navigation system, and developing a system to supply the Army with supplies along the system by building flat bottom boats.

That first colonel later became the president of the United States and further developed the inland navigation system. Any time I am out on the Mon (Monongahela River) where George Washington actually did that first survey - I like to run along the river - I always stop and reflect on the importance of that and having that vision.

Now let me bring you back to U.S. Steel and my visit with them and the importance of that. As many of you know, the production of steel really was most prominent here in this region in Western Pennsylvania for many years. The strength of the nation and steel production, highlighted by both the steel industry and the navigation's industry ability to move coal and other commodities to this region to produce coke.

Now, I often reference this point - does anybody have a GE refrigerator? You probably don't know. If you have a GE refrigerator, one thing of note is the back plate. The steel back plate of that refrigerator is actually produced from steel from U.S. Steel.

It starts with a piece of coke after it is refined from coal here in Pennsylvania at their (U.S. Steel's) Clairton Plant. Then it is moved by either barge or rail to their plant and continued to be refined. When I was at U.S. Steel, one of the things that I thought was absolutely remarkable about U.S. Steel is, at the Soo Locks, they bring in iron ore, vital to our economy. They bring in the ore that connects with the inland navigation system to the coke, it gets mixed, and the next thing you know, you have a refrigerator.

A lot of people across the United States don't understand how that all connects, that you take the small bit of commodity, the coal being transported down the river. If you go out to the Point in Pittsburgh, you see it day in and day out. While it is beautiful at the Point in Pittsburgh, I am always in awe when I see barges filled with coke and coal, in understanding how that is going to turn into a refrigerator or a piece of steel.

You hear a lot with the Administration right now and terrorists and things like that and how that will affect the economy. I always tie this into how important it is really to our national security right now and all the things going on in the nation and how important it is.

I just leave you with two things: I don't control the weather. I have some extremely dedicated and passionate employees in the Pittsburgh District that do deal with the most aged infrastructure in the USACE (U.S. Army Corps of Engineers) inventory. Every day those dedicated employees go out and do the maintenance necessary to keep our locks and dams operational so that we can move over 22 million metric tons of commodities up and down the river system. I am very honored and proud to be part of that team.

Thank you for being in Pittsburgh. Enjoy the weather while it lasts, and enjoy your time here. Thank you.

MR. POINTON: Thank you, sir. Enjoy the rest of your time in Pittsburgh before you get reassigned. Next up on the agenda, we have a prerecorded video message from Senator Bob Casey, senior Senator from the state of Pennsylvania, who could not be here personally, but was kind enough to record a message. So, without further ado, we will go ahead and play that on the screen.

SENATOR ROBERT P. CASEY: Hello. I am U.S. Senator Bob Casey, and I'm sorry I can't be with you in person today. But I of course would like to welcome you to the great City of Pittsburgh and the Commonwealth of Pennsylvania if you're from outside our state. The

rivers of southwestern Pennsylvania are the main arteries of the inland waterways. I am pleased to report that we have had a number of recent successes as a result of my 2014 legislation, the RIVER Act [Senate bill 407, the “Reinvesting in Vital Economic Rivers and Waterways Act, introduced February 28, 2013]. We have seen several fiscal years of full and efficient funding of priority navigation projects. And building on the RIVER Act, we authorized three new locks in western Pennsylvania within the Water Resources Development Act of 2016 [Section 1401 of Public Law 114-322, signed into law December 16, 2016].

Our nation's locks and dams play a vital role in creating and sustaining jobs and supporting economic growth throughout Pennsylvania and the country. As an example, look at the American businesses active here in Pennsylvania. The new \$7 billion capital investment in the petrochemical industry in this region is just the beginning of a renaissance in southwestern Pennsylvania that would not be possible without the rivers, and of course without the waterways system.

The Users Board work is so important, and the time is now to address locks and dams as critical national infrastructure. In southwestern Pennsylvania alone, over 200,000 jobs rely on the proper functioning of the locks and dams of the Lower Monongahela River. As a nation, we must be ready to capitalize on that, always looking forward, not backward.

As we formulate legislation for 2018 and beyond, I will work to sustain the current level investment from the Inland Waterways Trust Fund. I have enjoyed a great partnership with the Inland Waterways Users Board and the navigation industry. I look forward to continuing to work together on behalf of our great inland waterways transportation system. Thank you.

MR. POINTON: That was an appropriate message for this body at this event today. I appreciate that Senator Casey took the time to go ahead and make that effort for us. I would like to turn now to Mr. Thomas Smith, who is the Chief of the Operations and Regulatory Division at Corps Headquarters.

MR. THOMAS P. SMITH: Good morning. Thanks, Mark. As Mark said my name is Tom Smith. I am the Chief of Operations and Regulatory, but more appropriately, for this body, I am representing the Executive Director, Major General Scott A. Spellmon (Deputy Commanding General for Civil and Emergency Operations, USACE Headquarters, Washington, D.C.). I know that Major General Spellmon, who has been the Commander of our Northwestern Division for the past three years, changed command in Portland (Oregon) two weeks ago, and he is en route between Portland and Washington, D.C. Next week will be his first day on the job in the office, owning the function. He is not here today, but he has expressed interest in the activities of the activities of the Inland Waterways Users Board. We will be giving MG Spellmon an update on this process and the Users Board next week. MG Spellmon has expressed a lot of interest in learning more about the Trust Fund (Inland Waterways Trust Fund or IWTF) and how it operates.

Major General Spellmon is certainly no stranger to our mission set. He brings with him a lot of experience, and it would be good to have him in this seat at the next meeting of the Board.

I would also like to thank the Port of Pittsburgh and the Pittsburgh District, because it really is spectacular. I know that the Board is geographically disbursed throughout the country. But Pittsburgh is pretty close to Washington, D.C., so they do get a fair number of visitors who are trying to understand our infrastructure challenges. The District's ability to put on such a world class short, concise overview is really appreciated because it goes a long way. It is not just this Board that gets that message, there are frequently others, like I said, because of their proximity to the East Coast.

One thing that has been going on in Washington, D.C., and I know it will come up throughout this discussion today, is the pressure on the Corps and how it delivers its program. One of the focuses is does the Corps, does USACE, and does the Army have any ways that we engage and listen to those who have an interest in what we do? The fact that advisory bodies such as this one have met 87 times, sometimes it goes under the radar, because it gets into our system a bit.

I appreciate and talked a bit yesterday about how this continues to be an effective body. It has its ups and downs, but has been more and more informative over the years. I would just challenge the Board to keep asking sharp but hard questions of us and put expectations of communications back to you.

With that I will introduce our Federal observers and ask if they have any welcoming comments for the Board. First I will go to Mr. Matt Chang, who is representing the Department of Agriculture. Mr. Chang.

MR. KUO-LIANG (MATT) CHANG: Thank you, Mr. Smith, Chairman Hettel, Board members, and other attendees at today's meeting. Thank you. For the record, my name is Matt Chang. It is a pleasure to be here today on behalf of USDA's (U.S. Department of Agriculture) Agricultural Marketing Service.

The Agricultural Marketing Service continues to work with stakeholders to show the importance of the inland waterways system to the U.S. agricultural sector. We have sponsored cooperative research projects with the University of Tennessee's Center for Transportation Research, the Oak Ridge National Laboratory, and Texas A&M University's Transportation Institute.

For example, the research project with the University of Tennessee looks at the potential impact on the poultry industry in northern Alabama if navigation system disruptions were to occur on the Tennessee River. This project aims to provide insights on expanding barge traffic to the domestic agricultural markets other than grain export movements.

A second project, with the Oak Ridge National Laboratory, combines GIS [geographic information systems] with the U.S. Army Corps of Engineers' waterborne commerce data to develop flows of agricultural barge freight and identify key origin and destination pairs. Hopefully this information will be useful for our stakeholders.

Finally, I would like to mention the upcoming Agricultural Transportation Summit that will be held on July 25 to 26 in Arlington, Virginia. This event is co-sponsored by the USDA, the National Grain and Feed Association, and the Soy Transportation Coalition. The Agricultural Transportation Summit unites agricultural producers, agribusinesses and government to focus on the competitiveness and profitability of inland waterways, rail, truck, and vessel transportation to U.S. agriculture. The theme of the 2018 Summit is "Connecting Growing Supply with Growing Demand."

The USDA is pleased the summit will offer some great speakers and a lot of good content on the inland waterways and related issues. For example, Mr. R.D. James, the Assistant Secretary of the Army for Civil Works, is a featured speaker at the summit; as is Mr. Mike Toohey, President and CEO for the Waterways Council, Incorporated (WCI). Additionally, Mr. Sean Duffy, Executive Director of the Big River Coalition, will speak on the port panel, and Mr. Sal Litrico, Chief Executive Officer of American Patriot Holdings, will address the group during an innovation session on containerization on the inland waterways system.

This is a very exciting event we are looking forward to. Please let me know if you would like to have more information about this event and the research, I would be more than happy to provide more details. Again, it is my pleasure to be in attendance at today's meeting.

MR. SMITH: Thank you, Mr. Chang. Now I would like to introduce Ms. Branden Criman from MARAD (Maritime Administration).

MS. BRANDEN LEAY CRIMAN: Thank you Mr. Smith. Good morning. I serve as the Director for the Inland Waterways Gateway Office located in St. Louis, Missouri. I send regards from Deputy (Maritime Administrator) Mr. Richard Balzano. Mr. Balzano was here yesterday and had the pleasure to talk to a number of you. We participated in the reception and a dinner last night. Thank you, Ms. Bucci for the invitation, and we also participated in the tour. Thank you to the Pittsburgh District of the Corps.

Mr. Balzano looks forward to attending future meetings. We have positioned him well to attend the meeting in August, and he looks forward to that. He did not send any formal remarks today. He had intended to sit at the table this morning and represent the Maritime Administration, but had to be back in Washington, D.C. to brief the Deputy Secretary this morning. Thank you very much for the opportunity to provide brief remarks and I look forward to today's meeting and discussion. Thank you.

MR. SMITH: Thank you, Ms. Criman. Now I would like to introduce Lieutenant Commander Matt Forney from NOAA.

LT. CMDR. MATTHEW M. FORNEY: Thank you, Mr. Smith. Good morning Chairman Hettel, members of the Board, fellow Federal observers, staff and the public. For the record, my name is Lieutenant Commander Matt Forney. I am the Federal observer to the Board representing NOAA (the National Oceanic and Atmospheric Administration), specifically Rear Admiral Shep (Shephard) Smith, who is the Director of the Office of Coast Survey, the National Hydrographer, as well as a Mississippi River Commissioner.

NOAA and the U.S. Army Corps of Engineers continue to face the challenge of surveying the navigable waterways of the United States, and the primary intersection of these programs is the federal channels that the U.S. Army Corps of Engineers surveys and NOAA produces nautical charts. NOAA has been working with the Philadelphia District office of the Corps to make complete bottom coverage surveys a reality in federal channels. This is a great relationship and we are happy to say that NOAA has provided a peer review of data from the Delaware River, and we agreed with stating that this survey and methods has met International Hydrographic Organization (IHO) Category Zone of Confidence (CATZOC) A2 standards. This means that more available draft will be available to be utilized directly contributing to increased commerce for our nation and stakeholders. NOAA plans to expand this program to more districts, and would like to encourage USACE leadership to start self-assessing IHO CATZOC on their own.

NOAA would also like to thank the U.S. Army Corps of Engineers for requesting NOAA's review and comments on Engineer Pamphlet 1130-2-520: *Navigation and Dredging Operations and Maintenance and Procedures*. NOAA looks forward to providing comments and NOAA will have comments to HQ in the coming week.

As reported at the last meeting, NOAA and some of the districts have come up against a file size restriction in e-Hydro that has been causing some challenges in getting high quality bathymetry data for updating the charts. I am happy to report that this has gained the attention of HQ and there is a meeting occurring this week to try and find a way to resolve these challenges. The Office of Coast Survey appreciates the continued support of this committee in making this a priority for HQ.

In closing, NOAA would like to thank the U.S. Army Corps of Engineers' hydrographic experts from the Philadelphia District for bringing this good news story to the forefront and implementing methods for better and safer federal channels. I would also like to thank the Pittsburgh District of the Corps for the tour of lock at Charleroi, Pennsylvania yesterday.

Thank you Mr. Smith, Chairman Hettel and the Board for this opportunity to provide these remarks at today's meeting and I look forward to the rest of the meeting.

MR. SMITH: Thanks, Lieutenant Commander Forney. Typically at this forum, we have a federal observer from the Assistant Secretary of the Army's office in attendance at the meeting. Mr. Joseph Bentz (Deputy Assistant Secretary of the Army (Management and Budget) (DASA (M&B)) in the Office of the Assistant Secretary of the Army for Civil Works (ASA (CW)) intended to be here, but because, as we have all been talking quite a bit about the full release of the Work Plan associated with the Fiscal Year (FY) 2018 budget, Mr. Bentz is back in Washington, D.C. working through issues related to that release.

Our Assistant Secretary's office sends its regrets and regards for this forum. Hopefully his presence will answer some of the questions that are probably important to this body that he would not be able to answer until later if he were here. I will just leave it at that. With that, I

would ask that Mr. Martin Hettel, Chairman of the Inland Waterways Users Board to provide his opening remarks.

CHAIRMAN MARTIN T. HETTEL: Thank you, Mr. Smith. Welcome everyone to Inland Waterways Users Board Meeting No. 87 here in Pittsburgh, Pennsylvania. The Board would like to thank the Pittsburgh District for all of the logistical planning at our site visit to Charleroi yesterday. It is good to see this project moving closer to completion, actually to the point where I can start to see what the actual lock chamber will look like when it is completed.

I would like to extend a very special thank you to the Port of Pittsburgh for sponsoring the social event last night, along with our coffee service for today's meeting. Each time the Board holds a meeting in Pittsburgh, Ms. Mary Ann Bucci and the Port of Pittsburgh are more than willing to step up and support our inland waterways. We certainly thank you, Mary Ann, for all of your support.

Since our last Meeting No. 86 in Chattanooga, Tennessee the Board has submitted its "Advice and Recommendations" letter on the President's Fiscal Year 2019 budget request. We are seeing the Water Resources Development Act of 2018 move through both the House and the Senate and committees of jurisdiction. We are starting to see appropriations move through the House, all of which are good for the inland waterways industry.

As we heard earlier, the Corps also has a new Deputy Commanding General for Civil Works and Emergency Operations, former Commander of the Northwest Division, Major General Scott Spellmon. We look forward to General Spellmon joining us as our Executive Director hopefully at our next meeting in Paducah, Kentucky.

The Board would also like to recognize outgoing executive director Major General Ed Jackson (Major General Donald E. Jackson, formerly the Deputy Commanding General for Civil and Emergency Operations (DCG-CEO), USACE Headquarters, Washington, D.C.) for his leadership and collaboration with the Board, and we wish him well in his new position.

Our Inland Waterways Users Board Meeting No. 88, as stated, will be in Paducah, Kentucky in conjunction with the ribbon cutting ceremony for Olmsted Locks and Dam, which is currently scheduled for August 29th. Our meeting will take place either before or after the ribbon cutting ceremony. Be sure to mark your calendars, as I am sure we are all excited to get the Olmsted project operational as soon as possible.

One last topic to put on the radar for Mr. Pointon. With our experience on the time frame needed to appoint new members to this Board, we have six organizations whose term will expire May 27 of next year (2019). Those are American Commercial Barge Lines, Kirby Corporation, CGB Enterprises, Ingram Barge Company, Parker Towing Company, and Tidewater Barge Lines. As we've seen in the past, sometimes these appointments can take quite a bit of time to go through the appointment process. I would like to request from Mr. Pointon to lay out a timeline on this process and present that to us at the next Board meeting in Paducah.

MR. POINTON: I can reply right now. We actually already have a rough draft of the Federal Register announcement requesting nominations and candidates, and that will actually go to the Federal Register office next week, so will probably be published sometime in mid-June. I typically leave it open to allow enough time for candidates to go ahead and prepare their nominations and submit them. Once we get those, we take a brief time to go ahead and do an analysis, and then we will submit that. I am actually hoping we will have something taking shape by the next meeting in August.

CHAIRMAN HETTEL: Great. Would you be so kind, Mr. Pointon, as to when that notice is published in the Federal Register, let the Users Board members know.

MR. POINTON: Absolutely. I will send a copy of that to all the members.

CHAIRMAN HETTEL: Great, thank you. That will conclude my brief opening remarks as we have some very interesting presentations for today's meeting. I am sure they will evoke a lot of questions. With that, I will look to the Board members for any opening comments they may have.

MR. POINTON: All right. Thank you, sir. Next on the program we have Ms. Sheryl Carrubba, who is the Acting Chief of the Navigation Operations Section and Navigation Business Line Manager at USACE Headquarters. Ms. Carrubba is going to deviate from what is reflected on the agenda for her presentation since the FY 2018 Work Plan has yet to be released for public consumption. Ms. Carrubba will give us a few comments how that is playing out, but she will not have a presentation on that.

MR. SMITH: Mark, the approval of the minutes from the last Board meeting.

MR. POINTON: Oh, yeah, I forgot to approve the minutes from the last Users Board meeting, Board Meeting No. 86. The minutes are included in your blue read ahead books. They have also been provided to the Board members. Can I have a motion from a member to move to approve the minutes?

MR. WILLIAM M. WOODRUFF: Move adoption of the minutes. Matt Woodruff.

MR. POINTON: Matt Woodruff. Do I have a second?

CHAIRMAN HETTEL: Second.

MR. POINTON: Second Chairman Hettel. Motion from the members. All in favor say "aye."

THE BOARD: (Unanimous) Aye.

MR. POINTON: Any nays? Hearing none, the motion to approve the minutes from Users Board Meeting No. 86 passes unanimously. I might also mention that the Board's "Advice and Recommendations" letter, the letter relating to the President's FY 2019 budget,

that was transmitted to Congress and the Army, I believe to the Army on the 19th of April and to the Congress on the 22nd of April. That was submitted approximately two days after the time frame of the legislation.

Now, Ms. Carrubba, it's your turn.

MS. SHERYL A. CARRUBBA: Good morning. I am really happy to be here in Pittsburgh. About four miles as the crow flies here, used to be St. Francis Hospital. That is where I was born, and I went to high school here, and I am delighted to be back. I really like Pittsburgh. It is quite a bit different than when I was growing up here. The industry has changed a lot. It seems like UPMC (University of Pittsburgh Medical Center) is written on everything, but that is good.

As Mr. Pointon said, I really can't show the slideshow that I had prepared. I kept it in the queue all the way until this morning at 7 o'clock. In fact, just a few minutes ago while I kept watching my email to see if we had an approved plan, and we do not.

At the last Users Board meeting in Chattanooga (the last Board meeting was held in Chattanooga, TN on March 1, 2018), we talked a little bit about what was in the President's Budget for FY 2019. I will go over a couple of points about that and what I can tell you about FY 2018, but I really can't tell you anything that you really want to know.

In the minutes from the last meeting, you will note that the inland navigation budget from the President's Budget for FY 2019 was \$850 million. That is down from a little over \$1 billion in the FY 2018 President's Budget, which is unfortunate, especially when listening to the people at the lock yesterday and how they are struggling to make ends meet and doing a lot of O&M (Operation and Maintenance).

When the Omnibus Appropriations bill was passed this year [Public Law 115-141, the "Consolidated Appropriations Act, 2018", signed into law on March 23, 2018], there was only - and I say only, it is quite a bit of money - \$30 million was dedicated to the O&M for the inland waterways, but that actually was down from \$50 million the year before.

As you know, I am the Acting Navigation Chief, Mr. Jeff McKee having served in that position so ably for a long time, had to figure out which of the highest priority projects that \$30 million could be applied to. There really is much, much more need than that \$30 million would cover. There was another \$24 million that we used for general navigation, and I ended up using a good portion of that for inland as well. That is something to be aware of.

I don't really feel, given the discussions that we had yesterday, that maybe it is going to make our job that much more important to do the risk buy-downs and to use the asset management tools that we have to make sure that we can really target those available funds.

There was about \$340 million in the Omnibus Appropriations bill to distribute for construction projects. One-hundred twelve million (\$112 million) of it was dedicated to the Corps' portion to be matched by the Inland Waterways Trust Fund. As you know, in the

President's budget, there was \$175 million as well that went to the Olmsted Locks and Dam project. Some combination of extra projects will go into that \$112 million. I cannot tell you about what that actual distribution is going to be right now, and my apologies for that.

That is a very short, really all I can say, summary of where we are. Hopefully by today or next weekend, we will be able to give you a little bit more information.

MR. SMITH: Ms. Carrubba, let me just add something so folks don't approach you thinking that you actually have all the answers. The way you framed your comments is if you had all the answers. We do not have the answers. We just know that our Headquarters is actively engaging with Army and OMB (the Office of Management and Budget) right now with the final stages of this.

MS. CARRUBBA: That is correct sir.

MR. SMITH: Even if you were to show what you have, you shouldn't show it because it is not cleared, but it is also probably not updated?

MS. CARRUBBA: No sir, I don't believe it has been cleared by OMB. That is accurate, that is true. I didn't mean to leave you with that impression.

MR. POINTON: Are there any comments for Ms. Carrubba? Not that she could actually answer them if you asked them specifically. Thank you, Sheryl.

Next on the program is Mr. Joe Aldridge from the Programs Integration Division to provide the Board with an update on the status of the Inland Waterways Trust Fund.

MR. JOSEPH W. ALDRIDGE: Good morning, Chairman Hettel, Mr. Smith, Board members and guests. For the record my name is Joseph Aldridge, the U.S. Army Corps of Engineers Inland Waterways Trust Fund account manager at USACE Headquarters. It is good to be here this morning to provide this update. Thanks to the Pittsburgh District for such a great tour, and thanks to Mother Nature for the weather.

Next slide. This is the current status of the FY 2018 revenues of the IWTF so far this year as of 30 April 2018. The IWTF account started the fiscal year, October 1, 2017, with a balance of \$63,395,863. As of 30 April, the reported revenues collected in the Inland Waterways Trust Fund was \$64,557,238 of fuel tax revenues and earned interest of \$729,313. That brings a total balance year to date as of 30 April to \$65,286,551. Adding this year-to-date total balance collected to the carryover, or what the account started with, brings the account to \$128,682,414 that are available revenues.

Next slide. Here is an overview of the past five years of revenues compared side by side. Here you can see the revenue trends with FY 2018 represented by the red bars. The FY 2018 total, as I said before, as of 30 April is \$65,286,551.

Next slide. This slide represents the past three months compared side by side to give a better view than the five-year view. Please keep in mind these trends are estimates from the Department of Treasury and are subject to change. Usually it takes about 90 days for the Department of Treasury to provide an actual number versus the estimated number.

CHAIRMAN HETTEL: In our Annual Report to Congress, along with the President's budget request, for the last couple of years, the Board has been stating we should be using an average of \$112 million of deposits into the Trust Fund for planning purposes. I believe the number used for FY 2018 was \$106 million.

Just as an example, in FY 2016, our deposits were \$111 million. In FY 2017, they were \$114 million. Here we are on pace to be above the 2017 revenue number of \$114 million. I want to make the statement again that the Board believes we should be using \$112 million as an annual deposit into the Trust Fund for planning purposes of Trust Fund-supported projects. Thank you.

MR. ALDRIDGE: Thank you, Chairman Hettel. You will see that the FY 2018 revenues are trending higher than the FY 2017 revenue figures, so that is good news.

Next slide. This slide represents the past five years of the Trust Fund projects we have been tracking and the FY 2018 and FY 2019 budget for these seven projects. The only project budgeted in FY 2018 and FY 2019 was the Olmsted Locks and Dam project, and shows that project fully funded to completion. The Olmsted project should require no additional funding once it is closed out.

CHAIRMAN HETTEL: Joe, I am sorry. Footnote 10 of your previous slide reads "Reflects \$550,000 reprogrammed from Lockport (split 50% General Treasury/50% IWTF) to the Fargo Moorhead Metro (100% General Treasury). The \$275,000 IWTF reprogrammed from Lockport remains at HQUSACE for future allocation to IWTF projects."

This \$275,000 that was transferred from Lockport (Lockport Lock and Dam major rehabilitation project in Lockport, IL) to Fargo Moorhead (Fargo-Moorhead Metropolitan Area Flood Risk Management Project in North Dakota and Minnesota). You state here it reflects \$275,000 of Inland Waterways Trust Fund Program from Lockport remains at USACE Headquarters for future Inland Waterways Trust Fund projects.

Is that \$275,000 included in your total revenue balance?

MR. ALDRIDGE: Sir, I am sorry, those notes were left over. I wanted to keep those in for historical purposes, but that was FY 2017, and those funds were used at the end of the year. When the account is apportioned and we go back to the Treasury and say, okay, we need \$109 million to fund all these Inland Waterways Trust Fund projects for the Inland Waterways Trust Fund portion. That \$275,000 was overlaid with that, so we actually took out less than what we asked for.

The \$109 million minus \$275,000 is what we drew from the IWTF. Then we added the \$275,000 that we had retained at Headquarters, and that rounded us out to the full amount of Inland Waterways Trust Fund that we needed for FY 2017.

CHAIRMAN HETTEL: So I don't have to bug you with tracking that \$275,000 going forward?

MR. ALDRIDGE: That is correct, sir, and I can remove that footnote if you want. I just left it there for historical purposes.

CHAIRMAN HETTEL: I understand. Thank you.

MR. ALDRIDGE: Thank you sir. Next slide. This is the Mississippi Valley Division. We have one project, it is the Inner Harbor Navigation Canal. You will note that there are no changes to the financial portion. The only change is under the "Current Status of the Project" in the box in the lower right-hand side of the slide. The New Orleans District has formally sent the funding request letter to the Port of New Orleans for the amount that was owed to close out that project. All the funds have been released from escrow and distributed in accordance with the final account.

There are no changes on the project schedule.

Next slide. This is the Great Lakes and Ohio River Division. There are five projects. I am only going to cover the Emsworth Locks and Dam major rehabilitation project (Emsworth Locks and Dam is one of six major river facilities on the Ohio River in the Pittsburgh District). The other four projects will be covered by the project managers later this morning during their individual project updates.

Next slide. With respect to the Emsworth Locks and Dam major rehabilitation project, there are no changes to the financials. The work to clean the two sets of emergency bulkheads began in April 2018. The project is scheduled to be fiscally complete in FY 2019. That has not changed.

CHAIRMAN HETTEL: As we talked yesterday, I have been tracking this \$6 million figure left over from Emsworth all the way back to our December 2015 Users Board meeting. Here we are almost three years later with this \$6 million sitting somewhere not being utilized. How and when can we get those Trust Fund dollars and those General Treasury dollars on to support other Trust Fund projects?

And a second question, is that \$3 million you are referencing included in your total Trust Fund balance of \$128 million from your first slide?

MR. ALDRIDGE: No, sir. The answer to your second question is no, the \$3 million is not included in the total balance. We leave it on the project until the funds can be reprogrammed from that project to a need. In this case, we have \$3 million that is in the Inland

Waterways Trust Fund. If we reprogram it from, let's say, from Emsworth to Olmsted, we could track exactly where the dollars came from and where it went to.

Per our conversation from the past couple of Board meetings, if we draw the money back at Headquarters, I can't tell you where that money is going to go. It just goes into the fund, and it is just distributed. This way we can track the funds as to where it goes to.

CHAIRMAN HETTEL: My concern is here we have \$6 million in funds that could have been utilized, and it has been sitting for two and a half years not going anywhere. The \$3 million of Inland Waterways Trust Fund, while the interest paid on the Trust Fund is not that high, but we are not getting paid interest on that either.

When do you think we can see these funds being reprogrammed to another project? Is there a timeline you can give us, or are we just going to sit here on this \$6 million until 2019 when the project is closed out?

MR. ALDRIDGE: I am not really sure sir. I would have to go back and talk to the project manager to see when these funds are available to be transferred.

CHAIRMAN HETTEL: Maybe you can get that for us at our next meeting.

MR. ALDRIDGE: Absolutely, sir.

CHAIRMAN HETTEL: Okay, thank you.

MR. ALDRIDGE: Next slide. There are no changes to the Emsworth project schedule. Subject to your questions, that completes my presentation this morning. Thank you very much.

MR. POINTON: Are there any additional questions for Mr. Aldridge? Thank you, Joe.

MR. SMITH: Good morning again. I briefly mentioned in my opening remarks that one of the things that has happened as a result of a leadership change, which is obviously a couple of years now, in the Administration is a lot of review about the way we do business and how we do business in the Corps of Engineers, and a focus on infrastructure and project delivery broadly across the nation. One of the things that is cause within the Army and then from Mr. R.D. James (Assistant Secretary of the Army for Civil Works) and then from the Chief of Engineers (Lieutenant General Todd T. Semonite) is that we ought to be engaging as often and as effectively as possible with those who have interest in what we do.

To that end, earlier this month, we held two different stakeholder sessions at the Army Corps of Engineer Headquarters about the Administration's infrastructure initiative. We hosted two separate days of meetings at Corps Headquarters. The first day was about project delivery of water resource projects, and the second day was about environmental review and streamlining of permitting.

We had a broad cross-section of stakeholders, including Mr. Hettel and Mr. Toohey (Mr. Michael Toohey serves as the Waterways Council, Inc. President and CEO) on the first day. The second day we had a cross-section a little bit different because it was focused on our environmental review process.

I thought it would be appropriate as just part of a shared awareness of the type of things we are discussing about how we are delivering or expected to change our program, to show you those slides and have a little bit of a discussion. Those meetings that lasted for four hours, they definitely had a cross-section of interests.

I will make some comments about this. For the Board and for those who are here in attendance at today's meeting who are not members of the Board, these slides were produced for common use with stakeholders. One of the main points to highlight is that the Administration, after quite a bit of review, has published a legislative outline for rebuilding infrastructure in America.

I know that you have been part of it, or certainly as individuals have been part of it, because these things have been important to all of us. Things like the President's remarks last summer, and then even some recent remarks show that he has stayed on this infrastructure discussion to a certain extent, really challenging the assumption about the way we deliver projects. There is a link to the actual document (available at: <https://www.whitehouse.gov/wp-content/uploads/2018/02/INFRASTRUCTURE-211.pdf>).

It is kind of magazine length, and it has a little bit of a high end to it in terms of what the principles are. The Administration did not submit a legislative draft statute or a draft bill; they just submitted some proposals or some thoughts.

The Army Corps of Engineers did have a part in developing it. We were asked, the Chief (Lieutenant General Semonite), Major General Jackson, Dalton (Mr. James C. Dalton, Director of Civil Works), and others on a somewhat regular basis were meeting with Mr. D.J. Gribbin (former senior advisor to the White House on infrastructure policy) and others. We actually put some of our key leaders in some key positions there to discuss how we deliver water resource projects from the Army Corps of Engineers. Obviously infrastructure in this country isn't entirely about the Army Corps of Engineers, but it was one data point for the Administration.

As we worked with the White House on that, we talked about the challenges that the Pittsburgh District highlighted for us yesterday, and that the Board talks about just about every time it meets, about our traditional federal funding approach is not sustainable. We have great numbers that we can talk about, about backlogs in O&M and backlog in construction. Those all were taken under advisement by the Administration. Then the legislative principles that they came out with are focused in several areas that I will highlight over the next few minutes.

From an Army Corps of Engineers perspective, maybe this is the best chart, because not everybody gets inside baseball about how we do business. There was really an approach about putting pressure and asking the Corps to change or modify the way it delivers its water resource

projects. That is modifying our traditional delivery that we can break down into, we do have a Civil Works program, which is the way we deliver our federal water resource projects through the Army Corps of Engineers. Then our permitting efficiencies affect both sides. As many of you know, we do have a permitting role in infrastructure projects broadly when they affect wetlands and navigable waters of the United States. That kind of sits astride.

Then there were actually some new ideas. They may not be entirely new, because it is not like they have not been thought about before. But for the Administration to put on paper that it wants us to consider incentives, and then this WIFIA (Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) established the WIFIA program, a federal credit program administered by EPA for eligible water and wastewater infrastructure projects) program got some discussion.

I will make some highlights about each of those. In the legislative proposals - the incentive grant idea - if the federal government would be able to put up, as it says, \$100 billion in grant authority across several federal agencies and then encourage some non-federal investments. We would never grant the full cost of the construction, but to grant a portion of it in order to draw private capital into the discussion.

WIFIA loans are more about leveraging the federal ability to back a loan and draw in non-federal investment. The U.S. EPA on some of their infrastructure projects, has done this with some success and been able to use some of the ways the federal government can back a loan from the right creditors to leverage it into a significant amount of water resource infrastructure that fits the Environmental Protection Agency. There has been a lot of pressure on the Corps to develop a WIFIA program. The WRRDA of 2014 had already authorized it, but we had not moved out on it. I am going to talk about each one of these.

Everything is about enabling others to get access to money. We should be looking at ways to have non-federal partners access funds and to take over portions of the inland waterways system. We will come back and ask any questions on these. Then some of the traditional concerns about long-term contracts, can we get into long-term contracts, because as we talked about, it gets to the inefficient funding discussion.

Next slide. WIFIA got a lot of discussion. I won't go through too much of it here, but WIFIA did get a lot of discussion, and that is because this model has been used effectively by the EPA in a lot of their sewage treatment and other plants and enabled industry to come in leverage credit to build projects. We are moving reasonably well along on implementing a WIFIA program.

Next slide. I am going to skip through this. I am using the same slide for consistency purposes, but I can come back and talk a little bit about these if you would like.

Next slide. "Enhanced Project Delivery." On enhancing project delivery, in the legislative principles, there are sections on hydropower, contribution of advanced funds - changing where we get waivers on Section 902 cost limits (USACE projects are subject to Section 902 of the Water Resources Development Act (WRDA) of 1986, as amended, and the

cost limits established in it). As many of you know, the Administration has put as a signature piece to have the Corps of Engineers divest itself of the Washington Aqueduct. It is in their principles.

These challenges about enhancing project delivery are well known to this group. Projects are taking too long, and then we get feedback that the states and local entities want to be involved. There is quite a bit of discussion about how we can delegate more decisions, do more risk-informed decision making. These are slides that were shown in that forum, and maybe those who were there can make some comments about it.

The first half of the briefing talked about delivering projects through the Corps of Engineers. The second half of the discussion was about our permitting role. Once again, I am going to share it with you. I am not sure where all of the interests are, but I am certainly prepared to take some questions on it.

This is an area where the Administration can move further, because there are a lot of things that the Federal government does that are already in statute that it can change without statutory authority in some cases. You might have heard about “One Federal Decision” for a major infrastructure project. If there is a major infrastructure project, all of the federal partners have to make some commitments early on in the environmental review process to that. When that environmental review process is complete, that as an agency with their own authority, they would have sufficient information to make their permitting decision. Several of these are some high visibility concerns that have come up over the years, and like I said, I am prepared to talk about any one of them.

This is viewed as a very positive bipartisan step, because it is the idea we can do our environmental reviews with more transparency and faster. As I say, I can tell you that this is getting a lot of work. It is a significant focus of the Assistant Secretary's office and also the Corps of Engineers Headquarters. We just got the notes back from those sessions. We had some contracting support, and there will be some follow-on sessions.

Let me stop there, because my intent here was to, on behalf of the Corps Headquarters, expose you to a dialogue that took place. I know that Mr. Hettel was at some of those too. If there are any comments or questions, we can talk about what occurred in there, and then maybe what we should talk about here.

MR. DANIEL P. MECKLENBORG: The streamlining of the permitting process is an area that is probably attractive, as you say, on a bipartisan basis. But almost every of the other features of this is, and I think we have indicated this in the past, are problematic when we look at the health of the inland navigation system and its continued viability as a reliable mode of transportation. It is discouraging that the Administration was so supportive in terms of the high-level comments about waterways infrastructure, and yet so off the mark in terms of the actual specifics that have been put forward.

One question I have, Mr. Smith, would be: What role would OMB have in implementing an infrastructure initiative of this type? Would they play the same traditional role or would that be modernized?

MR. SMITH: They would certainly play their traditional role. In fact, as these principles were being developed, as some of the final reconciliation of the principles, there was OMB engagement now. One of the concerns that always comes up is, even if they agree to something that in a PowerPoint slide as a principle seems sound, when you then take it on a project by project basis, budget to budget, how does that get reconciled.

I don't think we have sufficient clarity, as you say, that matches the aspirational goal that there is a better way to deliver programs and to fund. I think your observation is accurate, and it is up to us to break it down into pieces. Some of these things up here about long-term contracting and sort of reinforcing, those are not new ideas.

MR. MECKLENBORG: Another question I have would be if, hypothetically you had a private investment that you wanted to go into the Upper Mississippi River NESP [the Navigation and Ecosystem Sustainability Program was authorized by Public Law 110-114, the Water Resources Development Act of 2007, dated November 8, 2007] and fund a portion of that, would that be something that OMB would likely be more supportive of than they would have been?

MR. SMITH: I would think your professional judgment in this case is as sound as mine. As a principle, the idea of drawing in additional dollars from non-federal partners is a broad goal. Project specific, we will have to work through OMB. There are some challenges with alternative financing that they have expressed on a project-specific basis. Not just OMB, but Congress as well. That is why they put these as legislative principles, because some of them would require some different statutory authorities.

We have some kind of small examples of some efforts of the federal government to enter into some public private partnerships. Congress has sometimes perceived that as taking away from its ability to prioritize where the federal dollars goes. We have got those constraints as well.

MR. MECKLENBORG: Correct. Just one more question, and that is that if you, again hypothetically, had a private entity that was granted a concession to construct and operate a navigation facility on, let's say, the Ohio River, what role would the Corps of Engineers have in the event you've got a privatized facility being operated, and then you have a series of other facilities that may still be operated by the Corps of Engineers that may impact the private concession or vice versa?

MR. SMITH: I think on that one, to talk just broadly, because it is tough to talk about it specifically. Mr. Dalton (Director of Civil Works, Headquarters, U.S. Army Corps of Engineers), the Chief (Lt. Gen. Todd Semonite, Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers), General Jackson now, presumably General Spellmon (Deputy Commanding General for Civil and Emergency Operations) want us to be open to all

ideas, because it is about changing delivery models. What you are getting to is what is inherently governmental on a system USACE owns the infrastructure.

There is an infrastructure group that has been established that includes many of the leaders who are trying to look at some specific ideas and specific places about what amount of a project could be turned over to a private entity to run, and what amount of government oversight has to remain in place.

One of the things I think the Administration's dialogue has allowed us to do is to force a debate on just about everything. Now, where we can get to on an individual project, I know is a bit unsatisfying.

The point that Mr. Dalton, the Director of Civil Works, and our Chief want us to do, is we are open, even to this idea of grants. Previously we wouldn't have been open to that. But we are open to anything, and we have to explore it for each case. Is a lock operator inherently governmental, or could you have oversight in place that allowed somebody else to do it? But if you bring in a private partner, they want return on investment. What is the return on investment model for them? Then you start getting into some of the concerns about where they are drawing their money. We have not resolved any of those issues specifically. I think the debate is forcing us to get closer maybe on a project- or area-specific basis that maybe some ideas will come out over the next year or two.

MR. MECKLENBORG: Thank you.

MR. SMITH: I know Chairman Hettel was there for some of the discussion, if he had any observations of the meeting itself.

CHAIRMAN HETTEL: Tom, not so much observation of the meetings, but the entire Administration's Infrastructure Initiative. I spoke about that at our opening comments at our last Users Board meeting. I would go back and look at our "Advice and Recommendations" letter on the FY 2019 budget request on page 7 under the section titled "Administration's Infrastructure Initiative", paragraph 3, and I am just going to read it out for the record:

"While agreeing with the Administration that additional investment in our nation's infrastructure is necessary, the Inland Waterways Users Board has seen no persuasive case made that the changes being suggested by the Administration for the inland waterways will not be harmful to the well-being of the system and to the national interest overall. The Board, therefore, urges that these proposed changes not be adopted at this time."

While I appreciate Board Member Mecklenborg's questions, it is hard for us to support anything when we don't know what it looks like. To dig into the possibilities and the "what ifs", again, I don't know what we can support until we know what it looks like in the end. But as it was written today, I just wanted to get on the record the Board's position on that. Thank you.

MR. SMITH: I think that your comments there, and for those who deal with the practical matters at the infrastructure level want to know a little bit more before they can even entertain the idea.

I would say that on the second part of this discussion, on the environmental review and transparency, that there is a bit more granularity in the direction we are heading. It does appear to have a bit more of a widespread support, but it is never universal.

I will make an observation from the permitting discussion that we had on the second day of those stakeholder meetings, where even in that forum, which we had about 30 different stakeholders, there were those who were concerned about the stated goal of the Administration to, on average, deliver the environmental review statement and associated permitting in about two years. There were those who were concerned that might leave out some of the collaboration that they view has been important to where we are in the environmental conditions of the country.

That shows you the complexity of just about every effort. My purpose today, though, was to share with you some of the ways the Administration is communicating to groups like this and drawing in feedback just like you shared. I do think that as we get further along, and if we get some granularity on how some of these might manifest themselves on the inland waterways in a little more detail, we will bring them in for discussion in front of the Board.

CHAIRMAN HETTEL: Thank you.

MR. WILLIAM M. WOODRUFF: Just a few comments, and I am directing this more toward the record than to you individually, because I expect you recognize some of the things that I am about to say.

The way that the Administration envisions privatizing and pushing down the state and local control, a lot of infrastructure might work for some types of infrastructure that the Corps currently works with.

For example, a flood control project that its impact is limited to a particular community, perhaps that community can better build that project and oversee that project than could the Corps of Engineers. Maybe it is appropriate to give them a funding mechanism whereby they could do that themselves. Even a sea port where a particular community is served by the ships coming and going, and it has got a very regional impact maybe that is something that could appropriately be done.

I know that I have talked to port directors who said, give me the dredging money, the O&M money from the Harbor Maintenance Trust Fund (HMTF), and I can keep my port dredged much more efficiently than perhaps the Corps can.

It is very different, though, when we transition to the inland waterways system. The folks who live around the Olmsted Locks and Dam probably recognize that there is a lock there, but they would never invest \$3 billion to build a lock to serve Metropolis, Illinois and the local

communities. The value of that lock is diffused across the entire system, so cargoes coming from the Gulf Coast and heading here, cargoes up here heading to markets elsewhere.

The inland waterways system only works effectively as a national system, and therefore, it is inappropriate, in my mind, to try to turn this national system into a balkanized group of individual projects that might have private ownership, might have local ownership, some might still be in the control of the Corps of Engineers.

I think that it is disheartening when I see, at the higher levels of the Administration, what seems to be a lack of that fundamental understanding that this system is different than a lot of the other components of infrastructure that the federal government is responsible for.

When we talk about public-private partnerships, we are a part of one today. This group, going back to, what was it, the Water Resources Development Act of 1986, the idea was that if the user pays, the users should have a say. It is frustrating to me to hear the Administration say, we want to be partners with industry to get things done. At the same time, they are taking our money, and in their budget, proposing not to spend it, and in fact, proposing to tax us even more to put more money into a trust fund that they are not spending the money that is in it today, or at least proposing not to do it.

The frustration of that approach becomes even greater when we go out yesterday and we look at these ongoing projects and see the inefficiency of what is going on there due to inadequate funding and a lack of a vision of let's get it done. There was discussion, well, our vision is how can we get as much done possible with start and stop funding as opposed to how can we just get this thing finished?

I think we should really step back and re-imagine what we are doing and start funding these projects fully and efficiently and giving the very capable engineers in the Army Corps the support they need to go in and get these things done as opposed to -- the last two tours we have taken, one of the primary things we have seen is piles of dirt being moved from one spot to another spot, so that somebody can come back later and move that pile of dirt from that spot to another spot. I would just like to see us get something done.

MR. PETER H. STEPHAICH: I am sitting in for Michael Monahan. I agree with Mr. Woodruff's comments. I would just like to add, we are an operator up here in the Pittsburgh area, and I would like to point out the cost factor here of some commodities may be able to support these additional privatized costs, some will not. I am speaking mostly on the utility coal side, which is our largest product up here in our region. A lot of these utilities are on the bubble, some of them are bankrupt. These are large volumes of coal that move on the river

I would just, once again, in these models, be careful that by putting the costs up, you don't reduce the volume to the point where the whole thing falls apart. It is not about forcing barge operators or coal to pay for these infrastructure projects. It is not about barge versus rail versus truck. Up here in the utility market, it is coal versus gas and barge coal versus pipelines. We want to be very careful.

I think we all know that we have in the past supported an increase in our diesel fuel tax. We are not opposed to reasonable solutions that work for everybody. But some of these numbers that we've discussed on these lockage fees are so steep and so high that I am pretty sure they would drive a large volume of cargo off the river, which I think is the only mode of transportation in our system. We do not want to drive large volumes of cargoes onto the roads, onto the rails. I would like to make that point once again for the record. Thank you.

CHAIRMAN HETTEL: Mr. Stephaich, to follow on with your comments, coal versus natural gas. You put enough cost on the delivery of coal, it is not going to get delivered. Natural gas is going to displace it more than anything. While you can talk about possibly modal shift of transportation, barge to rail or truck, you get the cost of coal so high that it competes with natural gas; that coal is not going to move on barge, rail or truck. It is going to not be produced. Am I right?

MR. STEPHAICH: You are correct.

CHAIRMAN HETTEL: Okay, thanks.

MR. ROBERT J. INNIS: On that point. There are other factors to add to this discussion as well. We have a shortage of over 300,000 drivers this year and that number is growing. Trucking is not going to be an option. Rail goes into many facilities but doesn't go into many other facilities.

What will happen is imports will come in, or the price to consumers will go up significantly. That will have an impact on the nation's economy, especially when we're talking about construction materials. This is either going to come in imported or be done domestically. A lot of people on the construction material side have gone to the water to make it more efficient. You will see those move as well. Those are major factors that will happen, and that will also further impact the cost of the locks.

MR. MIKE FEWELL: I have similar comments. Looking at some of the proposed fees from a private operator say on the Illinois River, it is not only going to drive us out of barge into rail, it is going to drive us out of the area. Dow Chemical is a pretty good-sized company, and we watch our dollars very, very closely. We will not continue to ship to a location that continually increases cost year after year after year, and that is what will happen with a private operator running a lock system.

MR. SMITH: Well, I think the commitment that, other than the Board obviously putting these comments on the record and sharing them at the appropriate times, is that there will be additional stakeholder engagement. I think your voice needs to be heard, because there is a lot of what you said that is really relevant to the larger discussion, and I know that you are vocal enough that that will stay on the record.

I think I will step down now, and I just appreciate your giving me a minute to highlight what we have been talking about with groups like this on behalf of the Administration.

MR. POINTON: Thank you, Tom. We actually are a little bit ahead of schedule here and we are going to deviate again a little bit from the agenda, and we are going to have Mr. Mike Jacobs (Chief, Cost Engineering Mandatory Center of Expertise (MCX)) talk about the way the Corps approaches cost estimating in our cost estimates.

MR. SMITH: Chairman Hettel, this discussion partly came up because of the comments at the last Users Board meeting, trying to understand a little bit more about contingency and the way we do some of this. This is a derivative of that. Please press us if we can help the Board understand the practice a bit better.

MR. MICHAEL P. JACOBS: Good morning, Chairman Hettel, other Board members and guests. It is a pleasure to come and talk to you. I am Mike Jacobs. I am the Chief of the Cost Engineering Center of Expertise located in Walla Walla, Washington. Our primary function is we serve the Corps' needs for an immediate response if there is crisis in cost estimating. We also do reviews and certifications on all the Civil Works cost estimates that actually go into the budget. We also do Agency Technical Reviews (ATRs) and Independent External Peer Reviews (IEPRs) for other agencies that call the Corps that ask us to do that for them.

I want to talk briefly about some of the processes we have developed over the last ten years on cost estimating and cost risk analysis and how we got here. If we look back to 2005, which is about the time I went to work for the Corps in cost estimating, the Corps was taking a lot of hits for busted budgets, busted schedules, inaccurate estimates of contingencies, and just general problems with projects overall.

There was a study done back at that time, the average Corps Civil Works project was 200 percent over budget at that time. As we went back and looked at what was going on, what was causing some of these issues with our projects, we went back and looked. We had a lot of issues with some of the planning studies that had been done in the late 1980s. Projects had been put together, not necessarily the right number that actually gone to Congress for congressional authorization. For a lot of projects we didn't have clear scopes of work defined. We didn't have all of those nuts and bolts and pieces actually defined that went into the parts of the project to actually build a complete usable project.

Also, for estimating contingencies, we stuck our finger in the air, looked at a chart, and said, we'll pick the 5 percent level, we'll pick the 10 percent level off of a standardized chart without really looking at the project and what we were doing and the inherent risks of it.

Then looking at the other things that go on in some of these projects - a lot of times funding levels are developed using this optimal funding scenario, when we know, in fact, that we are going to have funding limits. You are not going to get a billion dollars and build a project in two years anymore, because there just isn't that much money in the budget to just go do that. Laying out a usable, doable plan to actually execute the project and making sure all those pieces fit together so that we can actually get something done in a realistic manner.

Then getting down into the weeds really should be on an exponential curve, the quantities estimate details and other, generally a small issue. When we looked at that, we looked at independent government estimates where you have fully defined plans and specifications versus maybe some of those early feasibility estimates that go up for authorization. We thought, hey, if you have 100 percent plans and specifications, you can figure out what it cost to actually build it.

But if we are all the way back at feasibility level with all the challenges we have, where we may say, hey, we are going to go out and build this levee over a 50-mile stretch of ground, but we are only going to do five borings over that entire stretch. Some of those things can come back and bite us. We have tried to move toward a risk-informed decision making all the way back in 2007, and that was where we came up with the Cost and Schedule Risk Analysis process.

One of the things that we looked at is as the project moves on, everyone knows the cost of changes increases with time. If you have already painted the wall, your wife comes home and doesn't like the color, you are going to have to redo it.

It goes back to figuring out early on, making sure we have a 100 percent buildable plan in that early authorization feasibility report and making sure it is a realistic approach to actually building it, and we have all of those nuts and bolts and pieces identified to the best of our ability early on, combined with taking a risk-based approach at developing our contingency. Then we can hopefully minimize the cost of changes as the project moves forward and actually gets executed.

This cost and schedule risk analysis process came about to improve the development of our contingencies, to honestly assess our projects, where a project is at a particular point in time and to identify those critical risks. We came up with a set of guidelines that if a project costs more than \$40 million, we are going to require it (risk analysis) on all Civil Works projects. Every project greater than \$40 million in cost in the Corps on the Civil Works side has a formal cost and schedule risk analysis.

This process is qualitative and quantitative. Qualitatively, if we feel this is a risk for the project, we will take those risks that we identified as a team, and we will go back and we will actually try to put numbers to those risks, in terms of cost and schedule and interpret what that does to the project.

The key things to remember is you need an accurate estimate, and also the team needs to come and share the true facts of the project with that team as we goes through the process. We have the cost estimate and project schedule. We study, we look at it, and then what we do is we study the variances that could potentially change that estimate.

Our real goal - we develop this risk register for the project with the team and communicate what the risks are. If we identify those risks, then we look at the things we can do to mitigate them and see actually if we can do those mitigation efforts, what they will cost and what they will do to the project. If you ever got the opportunity to sit in on a Civil Works

Review Board, as the projects come forward, and they will go over each project's individual risk - the first question from the Mr. Daltons of the world will be, "What can you do to mitigate this risk?, How much will it cost?, and When can you give me an answer so we can buy down that risk as early as possible in the process?" That really tries to give us an accurate range of cost and schedule.

This slide is an idealized graphic of the way the process really works. Early on, our estimate is usually low because we don't know a lot of things a lot of times. We move forward, especially with our "3 x 3 x3" process, faster, quicker, better. Let us try to get a study done in three years, at a cost of \$3 million dollars, and with three levels of review.

We have to make decisions on what are the critical things that we need to know, and then what are the things we are willing to take risk on. We often will start out with a project with very high contingency compared to the base cost. We have seen projects in the last six or seven years come through with contingencies as high as 40 percent. Why? Because they didn't have a model done. Why? There was critical modeling that needed to be done to study the effects of some of the infrastructure of the project and what it could do.

As the project moves on and you get to that final execution, hopefully, if everything was correct, when you get done, your contingency level starts to drop off as you execute the project, you get contracts awarded, you start getting things placed. You have done all of those follow-on studies, borings, et cetera to learn about the site. Then hopefully you end up at the end of the project under budget, on schedule or ahead of schedule if your mitigation was accurate.

This is a typical S-curve from a real project. This is a vertical construction project that came out of MILCON (Military Construction) realm. Our ideal goal, typical what an S-curve looks like. In this case, this was our ceiling price. This was all the customer had, \$145 million. A lot of times in the MILCON realm, we are directed to try to craft a base bid that is 5 to 10 percent under the available funds because we know from our historical ranges of contract modifications and claims that run 7 to 10 percent on contracts.

We try to program so that our base bid package is under with another cushion so that we have enough to actually award the project and move on based on some of the things like market conditions that affect it.

When we get done with this risk analysis, we come back, we get done with this, we generally recommend the 80 percent confidence level. Why at 80 percent confidence level? That is generally a risk adverse stance. Ten years in the Corps, that is generally a new process for the Corps, because we know we move at the speed of sound on improvements.

We have been doing this for about ten years. We have done a couple of studies on projects, and that 80 percent confidence level generally appears to work. Some projects have come in over, some have come in under, especially looking at some of the dam safety issues we look at.

The key thing is, we come up with that that gives us kind of our conscience for the team. Here is where we are at 80 percent confidence level. This is our risk adverse posture to funding this project, and then the PM (project manager) and the District can look at that and say, okay, what are our risks? How do we want to move forward on this project? What are the things we can do to mitigate it? How can we act to minimize that?

Next slide. This is a slide of our two-year budget process we go through. This is one of our key problems when we look at this. If we have a budget issue today, it is going to take us two years to fix it in the budget, unless we can reprogram, and we all know that reprogramming is very hard. There are very strict limits on that in Civil Works and what needs to be done.

With this two-year cycle, if we have a budget bust, it is a big problem. Then you go to OMB. OMB comes to the Corps and says, well, we are on a five-year cycle. We have programmed all of this money that you told us for the next five years, now there is an issue -- now it can be even up to five years if there is a problem.

As an organization, that is why we chose that 80 percent confidence level. Why? Because at the end of the day in a true ideal world, that still means 20 percent of your projects may still have budget issues. But we try to get the majority of them so that they don't.

Next slide. I will talk briefly about budget submission requirements. One of the things that was implemented and an improvement, and part of the stuff that came out of the WRDA (Water Resources Development Act) in 2007 was that when we do our budget submission, we have to have a current estimate, a current schedule, a current risk analysis, and the costs need to have been certified within the last two years. Why do that? What does that do? This ensures everybody is doing the right things. We have got accurate data that we are putting into our budget process as we go through that. That is all that down at the bottom.

That also gives the impression as time goes on, remember we said the budget input goes back to the project manager and the district. If you look at Olmsted, for example, right now FY 2020 is their last budget submission. Very low contingency in that last estimate that was just certified a couple of months ago. They are basically projecting that they can come on board with the money that they have got, that they have already received an allocation.

Next slide. That raises the question, as the project gets to close-out on the end, what is the right level for contingency here? How much should we give back? How much should we reprogram back out of the project or not even ask for in the budget?

That is one of the things in our overall process that was laid out in the waterways Capital Investment Strategy - that whole process of interactions with the Board members and the Districts and the Corps and programming and planning on the budget. That is part of that feedback loop we have put in here. That is probably an area we may want to revisit in our next report, or update on it, is how we can improve it.

But the other side is, as the project naturally moves through the process, they update this risk analysis every two years and update their funding profile that they actually need. You are

going to see a natural decline in the contingency as the project moves forward. However, a lot of times that project needs the contingency. Fully funded projects gives the team flexibility.

As we saw that project, we were out on the dam yesterday, just imagine the challenges of relying on that Work Plan funding every year. If you look at the next four projects in line from the Trust Fund, if you actually get into the depth of how they have laid out their estimates, they have got contracts 1 through 10 laid out, options programmed into each of those contracts, very complex. All of these moving parts trying to make this work with the funding they actually expect to receive.

We just recently were participating in a VE (Value Engineering) study on the EDM project (the Emsworth, Montgomery and Dashields locks and dams project, also known as the Upper Ohio River Navigation Study). If you look at the needs for that project, their optimal funding stream to do those three dams is approximately \$400-450 million a year, if you lay those out in an optimal funding scenario. Then you start looking at what they realistically may expect based on the Trust Fund revenue and allocations – you are talking \$150 million a year. You can do the simple math and see what that does to the schedule. It is a very challenging process for the District to go through. The more moving parts, the more things you can have to go wrong, the more issues you could have.

We go through this process, every two years we take a look, we recertify that estimate. We look through and make sure everything is up to date. As the project moves forward, they are going to be asking for less money, less contingency at each budget cycle as they go through.

As demonstrated at the Olmsted project, that 80 percent confidence level is conservative. If we were totally risk neutral, we would be programming at the 50 percent level. That is a little risky, because that means 50 percent of the time we might be going back to Congress and asking for money, and then that puts that whole loop in there. Then you go back and stop the project because you are at the 902 limit, and that creates a whole other set of problems.

The Olmsted project is a good example – there were some risks that we thought were going to happen that didn't mature. They got all the money they needed. They had a good team. They managed the risks. They are coming in below that 80 percent confidence cost.

That is exactly the model we set up back in 2007 and how we wanted our projects to run. I look at that as being in the success category because the process worked. If you look at the size of these Trust Fund projects, we are so constrained by the amount of funding that we can actually annually spend, and our needs are so great, it is a real problem.

I know there is a lot of concern by Chairman Hettel that there is money left out there. But if you really look at the funding level needed to effectively do some of these projects and the burn rate. If you staff up to build a billion dollar project in four to five years, which you should be able to do for most of these navigation projects if they are efficiently funded, your burn rate is millions of dollars a month. So, \$5 million here, \$6 million there is actually only a couple of weeks of execution on a fully funded navigation project in full swing.

There are a lot of challenges with our funding. As the Districts go forward, this process should allow them as they get towards the end of a project and they can see that light at the end of the tunnel, amend their budget requests accordingly, make a risk-informed decision on how much money they actually need to finish the project, and that should free up the funds for the next project to get started in a natural manner.

That is my last slide so that concludes my presentation subject to your questions.

CHAIRMAN HETTEL: As we talked yesterday afternoon and last night at our dinner, let me give you my take at the contingency monies. At our Chattanooga, Tennessee Users Board meeting held this past March, the Corps told us that the Olmsted project costs were going to go down by \$330 million and Lower Monongahela River project costs were going to go down by \$75 million, a little less than \$75 million. I am rounding that off to \$75 million. That is \$405 million worth of contingencies.

Last year when they did a cost estimate of the Kentucky Lock project, at that time we needed \$404 million to complete that project. Because it wasn't funded, the cost was increased by \$397 million to complete that project. Now we need over \$800 million to complete that project.

I understand contingency at Olmsted. That was a very different type of construction, very dynamic river conditions, all of the above, but I am just using this as an example. If, and I know hindsight is 20/20, but if that \$405 million worth of contingency was applied to Kentucky, would we have received a \$397 million cost increase? I don't think we would have, or it might have been substantially less.

Again, I understand the reason for the contingency at Olmsted, but that is just an example. On all of today's reports on the Lower Monongahela River project, the Kentucky Lock project and the Chickamauga Lock project, the contingency money that is being reflected, the difference between the total estimated price and the most recent cost adds up to \$439 million between these three projects of contingency funding.

I understand contract modifications, all of the above, but these three projects all are being built in the dry. Lower Mon is somewhat in the wet. In my estimation, being built inside a cofferdam should reduce the risk if -- and these other three projects are going to be completed somewhere in the 2023-2024 time frame, somewhere in the neighborhood of five, five and a half years of completion.

If we were to look at that \$439 million, and I want to say give back, that is not really the right term, but take 20 percent of that each year and reduce the cost of the project, we would be saving \$88 million a year, \$44 million in Trust Fund dollars and \$44 million in General Treasury dollars, from the efficient funding numbers that were given to us in Chattanooga at our last Board meeting.

When can we start to see that reduction in cost and is it feasible to tell us what it would take to possibly reconcile that contingency on an annual fiscal year basis?

MR. JACOBS: The Districts generally update their cost estimates once a year, and they do that full risk analysis every other year, so they should have some visibility on where they are. The District does that whole risk analysis. They look at that project, and they base their contingency on their specific project, where it is at in time, and what the real risks are.

To look at each one of those projects, you would have to ask the team, what the key risk drivers are and what they need to do to buy down that risk at this point. To do that on an annual basis would take a small increment of cost. But I don't know, to be honest, I don't know if it would change things significantly. With the large costs of these projects and the natural decline that they are going to have with the biannual updates, I don't know if they could see a significant jump year to year.

CHAIRMAN HETTEL: What I am fearful of, as we discussed earlier, with the \$6 million left over at Emsworth from the rehab (rehabilitation) project there, I would hate to see one of these projects come to completion in 2023, 2024, and we have \$100 million left we have not spent, and we have to go through the whole reprogramming process.

As you all know, the longer we wait to start a project, the more costly it is going to be when we get to starting it. Now, this \$439 million worth of contingency would actually have built from the 2007 WRDA a 1,200 foot lock chamber at LaGrange Lock and Dam on the Illinois Waterway. Needless to say, that cost was in 2007 dollars, and I am sure it would cost more than \$400 million in today's dollars to build a new lock chamber at LaGrange.

To go back and look at our Trust Fund and look at other ways to manage our Trust Fund, whether it is public, getting our hands on, or whatever the case may be, I think we have got an opportunity here to more efficiently use our Trust Fund dollars by reducing the risk and reducing the contingency to apply these funds to other projects. We have a suite of 21 projects waiting to be built. That \$439 million would go a long way on a couple of those projects.

How can we look at this and take a good look at the risk and reduce the contingency, which then would reduce the total cost, which then would reduce the efficient funding numbers going forward to completion. What we would like to see is efficient funding numbers, and when that project is done, there are zero dollars left over and there is no contingency we have to worry about.

MR. JACOBS: I think at some level you will see that. I pointed out with Olmsted, they have received their last increment scheduled for FY 2020, or to be completed in FY 2020. As you end up with these projects, you're going to have the natural decline in that contingency toward the end. As you end up with these projects, you are going to have a natural decline in that contingency towards the end. As they finish these projects, then you have got the flexibility to use that money.

CHAIRMAN HETTEL: I am not sure how flexible it is seeing that we had \$6 million sitting at Emsworth for two and a half to three years. Let me just touch on base on Olmsted too. There was \$175 million requested in FY 2018 and \$35 million requested in FY 2019 or a total of \$210 million, and then the District doesn't request any more funding. They are going to work for three more years and remove Lock 53, remove Lock 52 (Locks 52 and 53 are located on the Ohio River about 1.5 miles downstream of Brookport, Illinois, and will be demolished once Olmsted is active), mooring cells, dikes, all of the above. It is obvious that the funding that they have received is more than what they spent in every year.

The last three years to close out that project is going to be used in carryover funding that has been prefunded to them in previous years. I am just looking for efficient ways to use our Trust Fund, and I think eliminating contingency is an opportunity here.

MR. SMITH: I think you bring up some great points about our programming, reprogramming. We asked Mr. Jacobs to come in and, as part of the story, which is that we have the process for cost estimating, it is a standard one. They look at a lot across the Corps, but when you get to some of these specific projects coming up, you can challenge us.

I will talk with Mr. Durrett and the Great Lakes and Ohio River Division staff, they own a lot of this, and maybe we can come back and talk to you about our programming, reprogramming, and how agile we are or aren't and what we can do there. I think there is something sound within what you are saying, that we need to figure out where we actually could be doing something and where we need some help if we have to do something.

MR. WOODRUFF: I was part of the Users Board back in the 2010 time frame when we worked on the Capital Development Plan, and we spent a great deal of time talking about the issues that you just presented in your slide show. I completely understand the 80 percent confidence level. I fully support the 80 percent confidence level. From my perspective, I don't think we should retreat from many of the policies that were laid out in the presentation that you just gave. The last thing we want to do is go back to where we were, where we were chronically underestimating projects and found ourselves in the middle of the year and didn't have enough money, because something that was a known unknown went the wrong way for us, and we weren't prepared for that.

From my perspective, where I think we can improve perhaps is just in the execution of the policy, not in changing the policy. What I mean by that is I support, as Chairman Hettel suggested, the idea that if we have too much money sitting on a project, we need to figure out how to efficiently get that money off of that project and make it available for some other use.

As you demonstrated in your slides, as we go further into a project, the contingencies should be decreasing, and therefore, as we see that happening, maybe it is just a matter of being a little bit more nimble so that we can get that money somewhere else.

I am not suggesting from my perspective that we do a wholesale policy change. Maybe it is more just a matter of becoming a little bit more nimble, and seeing when we have money

that is truly no longer a contingency that we need to worry about and getting that somewhere else.

MR. MECKLENBORG: I will just make one additional comment, and that is that while having an appropriate contingency makes sense, and I can understand the desire to factor that in, under the current rules, it does have a significant impact on whether or not a project's benefit to cost ratio is at a level that can even allow the Corps to begin construction on the project. That is a vicious cycle. Assuming that having a reasonable contingency is important, it highlights the need to reevaluate how the benefit to cost ratio, or BCR, is used in terms of projects being allowed to come out of the gate with respect to budgeting purposes.

MR. INNIS: Do we break out the contingency by actual project contingency and then funding contingency? Because it seems like when you're looking at a normal project, you look at 5 to 10 percent on contingency. Do we have that broken out where we can say, the project contingency is 5 percent, 10 percent, but the remainder of the contingency is based on efficient funding?

MR. JACOBS: Generally what we have done in the past is we have treated all the contingency as one pool and spread it evenly across the project, with the general principle that some things will come in higher, some things will come in lower. If you start segregating the contingency out, that can cause you more problems than it actually solves.

One initiative that Mr. Dalton has put forth, and we are working on a plan to implement it, is to actually develop that optimal funding stream, and then develop a more realistic funding stream for all projects so we can see the sensitivity of funding and what it actually does specifically on each project as it goes forward.

MR. INNIS: On that, I have a follow up question. Would you be the right person to ask about the less than efficient funding that was proposed previously?

MR. JACOBS: I am probably not the right guy for funding questions on that, but we see a lot of projects come through. If you look at a project that we did maybe back in 2007 or 2008 and see what actually happened to the funding, you can look back through the history and see all of the changes. For example, we thought we were going to do this with three contracts, and now we have actually had to do seven, and all of those additional costs of having the team go back and repackage and put different things together. Less than efficient funding does cost money.

MR. INNIS: I was just going back to it, because at our last meeting we showed less than efficient funding and when you looked at it on a time value of money, it actually slowed the project down a couple of months. But the time value of money and the return on investment was going to be much higher on the less than efficient funding. As a private person, we would have probably gone with that scenario.

I see that as not necessarily less than efficient funding, but maybe optimal funding for return on investment, especially the way we are going to push money forward. If you are

asking for \$100 million up front, if you can continue the project and keep it going with minimal delays for \$50 million, it is going to make things move a whole lot quicker and require less funding.

MR. DAVID KONZ: This is more of a process question. The 80 percent confidence level that is used, is that every time a risk assessment is done? When you were talking about you go back and redo it, is it always 80 percent? Because it seems just kind of from the private industry side, if you were in year five- of a six-year project, 80 percent seems extremely conservative. You should see the light at the end of the tunnel. I just was wondering because if it was in our shoes, we might say we are comfortable with 90 percent or 95 percent.

MR. JACOBS: That 80 percent confidence is that 80 percent of the time the cost will fall out to the left, and it should come in less than that amount. We use that as a standard. Like I said, that puts the ball back, though, when it actually comes to make the budget inputs, back in the PDT's (project delivery team) lane.

Right now Olmsted, they are programming less than their 80 percent confidence dollars in the budget to finish because they have got some risk mitigation measures they think they can do on the table so they can deliver at less than that 80 percent confidence cost. Where they are at right now, where they can see the light at the end of the tunnel, that is really the poster child project of how, let's look where we really are, we think we can make it at less than that 80 percent confidence level, so we are only going to request the funding that we really absolutely think we absolutely need.

That is really how this whole process was envisioned to go. You are right, at the end of the tunnel, that 80 percent confidence contingency might actually climb. I guess in a theoretical world, on the last day of a project, if I have one dollar to spend and one day to do it in, but anything happens, now I have another day, I have 100 percent contingency on the last day of the project for percentage-wise. As you move forward, moving your budget request maybe down to that 50 percent confidence makes a lot of sense.

CHAIRMAN HETTEL: A couple of points on that. These three remaining projects are all in the Great Lakes and Ohio River Division. Maybe Mr. Durrett can give us a presentation at our next Board meeting. I am going to volunteer you, Steve [Mr. Durrett], on what it would look like to reconcile this contingency on an annual basis. Maybe you can do this and give us a feel for it at our next Board meeting.

I think you made a very valid point. I don't think there is anybody on this Board that doesn't want to give the Corps the money that they are going to spend on an annual basis to get these projects completed. Our question is "Are we giving more money than what you can spend in an annual year?"

I remember one of the former generals stating that efficient funding is the maximum we can spend on any one project in any one year. When you look at the total estimated price versus the authorized cost, it doesn't look like we're spending all that money in every year. That

relates back to my previous comments on 21 other projects that are waiting for funding - can we reduce the contingency that could possibly have this funding going to another project.

I will end my comment with that. Thank you.

MR. SMITH: Thanks, Michael. I think some of these questions, when you come up with the project briefs, you can follow along a little bit more specifically. The Cost Engineering Center of Expertise has an enterprise perspective on how we can do it broadly, but I think some of these questions, as you say particularly with respect to the Great Lakes and Ohio River Division projects are central to them.

MR. JACOBS: Thank you very much.

MR. POINTON: Thanks, Mike. At this point I got 9:45. Why don't we take a break? Let's try to be back at 10:15 since we are a little bit ahead of schedule. Thank you.

(Whereupon, a short break was had.)

MR. POINTON: If everyone can please take their seats we are going to reconvene the meeting, and we are going to start with an update on the Olmsted Locks and Dam project. We have Mr. Dewey Rissler here today, who is the project manager for that project who will be providing us with an update. Without any further ado please go ahead, Mr. Rissler.

MR. DEWEY W. RISSLER: Thank you, Mark. Good morning, Mr. Smith, Chairman Hettel, Colonel Lloyd, Board members, Federal observers, fellow Corps employees and other attendees. For the record, my name is Dewey Rissler, and I am the project manager for the Locks & Dams 52 and 53 Replacement Project, commonly known as Olmsted, and on behalf of Mr. Durrett, I will be presenting an update on the status of Olmsted project today.

The picture you see here on the cover slide is probably easier to see in your book. It was taken in November 2017. To orient you, the upper portion of the slide is the Kentucky bank side of the river, the lower portion of the slide is the Illinois bank side of the river. You can see the two 1,200-foot lock chambers and the five tainter gates.

At this point in time, we had all of the wicket shells in place except for one, and it was sitting in the precast yard to be installed. You will see four (4) of the 13 river dikes have been installed at the time of this photo. This area in the lower portion of the slide is where the lock master's office and maintenance building were under construction.

Next slide. This is our "Bottom Line Up Front" slide, pretty much what we had briefed at the last meeting in Chattanooga. One thing I want to point out, under the current project schedule, we have pulled to the left the project completion date from 2022 into 2021 based on some of our most recent work. We are still showing the \$329 million of project cost savings.

As we have said before, the key to our success at Olmsted is the efficient funding that we have received and being able to take advantage of being able to work in the river conditions when they allow.

CHAIRMAN HETTEL: Can I ask a question on that slide.

MR. RISSLER: Yes, sir.

CHAIRMAN HETTEL: You say the project will be operational in 2018; we are almost through five months of 2018. It looks like without any additional precipitation, and who knows what the weather is going to bring, we may be having to pick up the wickets at Lock and Dam 52 by mid-June.

That current operation, the last time we raised the wickets, takes a four-day total river closure to pick up the dam at 52, two full days to drop it for the river closure. How soon could Olmsted be operational? We haven't had the wickets at Lock 52 up in four months, so who knows what wickets are going to be left when we get out there and try to pick it up. If there are not enough wickets to hold pool, would you be able to raise Olmsted and impound the pool?

MR. RISSLER: At this point we have our Wicket Lifter Keen on site. We are doing the final zeroing in on the electronics for the underwater sonar to be able to lift wickets. We are having all that zeroed in this coming week. As soon as the river conditions allow, which we need to have something below 300, 301 river elevation, we are going to be out there testing and testing the raising of the wickets with our wicket lifter. At that point in time, we feel confident we could raise the dam if required.

CHAIRMAN HETTEL: Is that training six weeks, two weeks? How long do you think that training needs to take?

MR. RISSLER: What Operations tells us is to become totally comfortable with the operation, it will take a matter of months. But we have all of the contractors and everything on site to be able to provide that training over the next three weeks.

CHAIRMAN HETTEL: About 90 million tons of commodities move past that project annually. If the Corps goes out and tries to raise the dam at Lock 52, and they can't impound the pool, it is not only navigation that would suffer, it is the municipal water intakes, the industrial water intakes.

What risk would be involved, and when would you make the determination of we can't hold pool at Lock 52, we are going to go down and try to raise the wickets at Olmsted?

MR. RISSLER: I am going to ask Mr. Durrett. I am just the Construction guy, I am not the Operations guy.

MR. DURRETT: Our intent is that in an emergency, Olmsted will go up.

CHAIRMAN HETTEL: Define emergency for us.

MR. DURRETT: If we can't get the dam up at Lock 52, we will get Olmsted up.

CHAIRMAN HETTEL: If you can't get it up in ten days, two weeks, or can't get it up in four days, or what?

MR. DURRETT: I will have to defer that for about another week and let me talk to the District. The intent is Olmsted will go up. In an emergency, we will get Olmsted up. We will not lose pool, we will be able to maintain pool. I can't tell you if it is three days or two days. We know we have holes. Kareem [Mr. Kareem El-Naggar, Deputy Chief of Operations, Great Lakes and Ohio River Division, USACE], can you add anything extra from what you know about the dam at Lock 52 from the Operations folks?

MR. KAREEM EL-NAGGAR: No, not really.

MR. DURRETT: Our goal is we won't have to use the dam at Lock 52 again, but that is dependent upon Mother Nature. Mother Nature dictates, because we have not gotten testing done for the wicket lifter and feel comfortable, and we will try to raise the dam at Lock 52. If we can't, we will go back and whatever resources, either our resources or the contractor's resources, we will get the dam at Olmsted up.

CHAIRMAN HETTEL: The only question is, how long would we be in a total river closure before that happens?

MR. DURRETT: Short, if any at all.

CHAIRMAN HETTEL: We've got an industry call Tuesday the 29th of May on the transition from Lock 52 to Olmsted. Is it a possibility to have that information for us then?

MR. DURRETT: Yes, we can raise that question. If we don't have an answer for that meeting, we can have it shortly thereafter.

CHAIRMAN HETTEL: Okay. Thanks.

MR. RISSLER: Next slide. This is our project overview slide, pretty much like it showed from the last meeting. One thing I do want to point out here is that, again, all of our damming surfaces are in place. All of the wickets are there, the tainter gates are there, the right and left boat abutments are there.

The one thing that we have to finish up here are what we have at the isolation piles, the isolation joints. Those are three distinct areas, and I will explain where those are. We are in a high-seismic zone here in Olmsted, and these isolation piles act like shock absorbers, if you will. We have one that goes in between the left boat abutment and the fixed weir. We have one that goes in between the tainter gates and the right boat abutment. Then we have one that goes in between the tainter gate and the lock wall.

The isolation pile over at the left boat abutment will be completed by the end of the month. The other two had required some additional design work. Those are currently under fabrication and will be installed later this fall. They don't have any impact on us being able to operate or hold pool here at Olmsted.

Next slide. I have brought a few photos from the project site. Again, we have the Wicket Lifter Keen on site. Our Operations staff have been using it and getting more and more familiar with it. In the picture on far right of the slide you can see the service mound buildings, what we call the service mound building, the lockmaster's office and the maintenance building. Those are continuing, and we expect those to be done later on this summer.

Next slide. Here I have provided before and after photos, if you will, finishing up things on the dam, and we are starting to reduce our footprint. The photo on the left side of the slide was taken back in September of 2016, and you can the strand jacks are still up on top of the gantry crane. The precast yard is full of precast items to be able to go into the river.

The photo there on the right of the slide, you will notice the strand jacks are off the gantry crane. We recently sold those on the GSA [General Services Administration] website. The casting yard is empty, and we are starting to reduce our infrastructure footprint there as we finish things up and close the project out.

Next slide. The picture on the left is one on the isolation piles I was telling you about. This is the one specifically between the lock wall and the tainter gate. You will notice these two big piles here, to give you a perspective, those are eight foot diameter filled with concrete. This area and this area right here are where the shock absorbers or the isolation piles will go in, so as soon as we get those in - those are eight feet, so this gap here is about three and a half feet or so, and this one is two to three feet here. They are not very big.

The picture on the right is a radar scan of an allision that occurred on April 18th of this year (2018). To orient this picture, you will notice here are the lock chambers, the tainter gate section, and these are all of the wicket shells that are in the river. As the tow was progressing upbound, just as it passed, the navigational pass here, which was open at the time, it went over to the Illinois side, made contact with the approach wall there, and broke apart.

One of the great things that happened, though, is we had three boats from our own contractors from out of there, plus our river dikes contractor was upstream and able to immediately respond. We were able to secure all of the barges that came out of the tow except for two. One came up, came through the tainter gates and came through and landed up against the catamaran barge, which was then later successfully pulled off of there.

The other came and lodged up against the tainter gate bays 4 and 5, where it eventually sank, and it sits there today. We have been working with the salvage company and have a plan for them to come out and raise that barge by the middle of next month so that we can continue our work in that area. We have some grouting yet to do in that area.

Next slide. This is a quick recap of our project funding. A couple of items here to note. This Total Project Cost figure was a preliminary number I had. That number, in actuality, from our most recent cost and schedule risk analysis that was signed off on the 9th of May is \$2.867 billion.

Another change that we made on this slide was our remaining balance, previously that was \$493 million, now we're showing the remaining balance down to \$115 million. That number does include the \$35 million that is including in the FY 2019 budget. One thing to note here, you will see it reflected on one of the other slides, is the allocations to date. This number that we are looking for here, this \$2.775 billion figure, and it is the total of all of these, and that coincides with our current Total Estimated Price of the project.

CHAIRMAN HETTEL: At our Chattanooga meeting, this same slide showed a remaining balance change from last meeting of \$250 million, now you are showing here \$378 million. Does that mean we are going to get another \$128 million in risk or contingency reduced? Help me understand the difference. We were told the total price went down by \$330 million, but you are showing \$378 million.

MR. RISSLER: No, sir, it is still \$329 million. How these numbers all roll up here – I am not exactly sure what that delta is. But we have not varied off of the \$329 million in savings.

CHAIRMAN HETTEL: Okay, maybe we can get that clarified for our next meeting?

MR. RISSLER: Yes, sir.

CHAIRMAN HETTEL: Thank you.

MR. ALDRIDGE: Can I ask a question. I am not sure I understood your question. Are you asking about the \$115 million that shows on the slide?

CHAIRMAN HETTEL: No, Joe. Your financials from the Chattanooga meeting shows the remaining balance change from last meeting of \$250 million. Then we were told it was a \$329 million reduction in cost, and this slide says it is \$378 million. Which number is it, I guess? I know Mr. Rissler said \$329 million, but where does the \$378 million remaining balance change from last meeting come from?

MR. ALDRIDGE: Was that the cost adjustment you just said was received on the 9th of May --

MR. RISSLER: Yes, sir, the \$378 million is the difference between the \$493 million that was shown as the remaining balance of last meeting and the \$115 million we are showing as the remaining balance this time.

MR. ALDRIDGE: That \$115 million is the difference between that \$2.856 billion and the \$2.775 billion cost figures. Really that is just an allocation number, not the amount that is left on the project.

MR. RISSLER: At the Chattanooga meeting, I believe we were showing a remaining balance at that time of \$493 million.

CHAIRMAN HETTEL: Correct.

MR. RISSLER: This time we are showing a remaining balance of \$115 million, but the delta there is \$378 million.

CHAIRMAN HETTEL: The \$378 million is the difference between your \$493 million at Chattanooga and the \$115 million?

MR. RISSLER: The \$115 million today, yes sir.

CHAIRMAN HETTEL: The remaining balance is still \$493 million? Because you say remaining balance is \$115 million.

MR. RISSLER: Correct.

CHAIRMAN HETTEL: The remaining balance change from last meeting of \$378 million is part of the \$493 million?

MR. RISSLER: Yes, sir, \$493 million minus the \$115 million should give you \$378 million.

CHAIRMAN HETTEL: Okay, it is just confusing the way it looks. Thank you.

MR. RISSLER: Next slide. "Olmsted Locks and Dam Project Schedule." The changes on slide are in this red, actualized are in the green. For our buildings and grounds completion, that is tied out to the end of July for the contract. We are still anticipating the lockmaster's building to be done in the mid-June time frame.

The completion date shown there for the demolition of Lock and Dam 52 is now the end of December of 2020. We had estimated a two-year destruction period for that activity.

Lastly, we pulled the river dikes completion date to the left and now have that is at the end of this calendar year. These are the major items.

Some of the lesser items that we have yet to complete after this year will be site restoration, some additional road paving, and the demolition of the land structures at both Locks and Dams 52 and 53.

Next slide. “Olmsted Locks and Dams Time and Cost Scorecard.” There is really not a lot changed here. Again, we were pulling the completion date to the left into the 2021 time frame. Under the “Major Activities” schedule in the lower right hand corner of the slide the first four items there we have actualized. The wicket lifter, awarding of the river dikes numbers 5-7, settlement of the big modification there, the PCN, what we call the 998. And we received the certified cost and schedule update on the 9th of May.

Next slide. The “Olmsted 12 Month and 5 Year Cost Trends” slide. Here is a high-level view. Mr. Jacobs talked earlier about the certified cost and schedule analysis, and that is what this upper graph is. It is our total project cost line. On the left hand side of the graph, back here at the PACR (Post Authorization Change Report), we were showing the \$3.099 billion Total Project Cost figure, and every even year (2014, 2016, 2018), we have a certified cost and schedule analysis done by Mr. Jacobs and his group at the Cost Engineering Center of Expertise. In the odd years, we do that internally or regionally.

As you can see, over the years, their estimate has come down, again, retiring some of the risk as we get closer to the end of the project. Our Total Estimated Price still runs here between the \$2.77 billion and \$2.78 billion cost figure. Here in the next year or so, we anticipate this glide path to intersect with where we are in our total estimated cost.

Next slide. “Olmsted Locks and Dam - Finishing Strong.” We are still working on our equipment disposition. We have received a waiver from GSA, which will allow us to sell some of the equipment with some restrictions. That is where they have to try to sell it through GSA sales first, and if they are unsuccessful, then that allows us the ability to go and sell it through our own contractor's means. What we believe there is that our contractor, having better contacts throughout the industry, could go out and try to pinpoint and find folks that are interested in specific pieces of equipment, whereas with the GSA website, you have to go there, and you have to be looking for certain things.

CHAIRMAN HETTEL: A question on this equipment disposition. Have you sold any equipment to date?

MR. RISSLER: Yes sir, we have. We have sold several things. As a matter of fact, as I said earlier, we sold all of the stand jacks that were both on the catamaran barge and on the gantry crane. Those were just both sold recently. We sold a concrete pumping truck recently, and we have received bids. We haven't seen the check yet, but we have received a bid, a successful bid on the catamaran barge itself. We are having some success at selling some pieces of equipment.

CHAIRMAN HETTEL: The proceeds from the disposition of this equipment, seeing how the Trust Fund probably bought half of that equipment, what is going to happen to that money? Is that going to be returned to the Trust Fund? What's going to happen there?

MR. RISSLER: Those funds will come back into the project, and we will put those back on contract to offset the future billings to the contractor.

CHAIRMAN HETTEL: You have requested your last funding in FY 2019 of \$35 million. Sounds to me like any disposition of assets will leave a remaining balance not utilized?

MR. RISSLER: No, sir.

CHAIRMAN HETTEL: Or are you planning on the value of those assets will reduce the \$35 million request?

MR. RISSLER: No, that is all included in that \$35 million request.

CHAIRMAN HETTEL: Okay. Just so I can clarify that - if you didn't sell any assets, you would have requested more than \$35 million; is that correct?

MR. RISSLER: Yes sir.

CHAIRMAN HETTEL: Is there a way you can give us a running list of your disposition of assets?

MR. RISSLER: Yes sir.

CHAIRMAN HETTEL: Moving forward for our next meeting?

MR. RISSLER: Yes, sir.

CHAIRMAN HETTEL: Great, thank you.

MR. RISSLER: Continuing with the items on the slide. Our "out year" marine work packages. The miter gate repairs and culvert flushing for the land chamber, which is currently being worked by our contractor. The upstream mooring cells, and the partial demolition of 53, will begin sometime this low water season. We already have that work under contract. The River Dikes numbers 8 through 13, the final installation of those dikes will be completed by the end of the calendar year. Again, we continue working on the Wicket Lifter Keen, commissioning that and getting our folks familiar and comfortable with the operation of that piece of equipment.

Next slide. Wrapping things up here is a picture of the Wicket Lifter Keen on the left side of the slide and some of the wickets that were raised not by the Keen, but during the construction. We always raised a few of them to make sure that they would come up like they were supposed to.

The ribbon cutting of the project is currently scheduled for some time at the end of August. Even though the project is substantially complete, which we consider will be able to be used for its intended purposes, there is still quite a bit of work yet to do. Again, things such as the site restoration and the land-based demolition items, that kind of stuff. We are going to continue that on and get that complete in the 2021 time frame.

CHAIRMAN HETTEL: The August 29th ribbon cutting ceremony, will the project be operational by August 29th?

MR. RISSLER: If required to be operational, it will be.

CHAIRMAN HETTEL: Your contingency course of action to hold pool prior to October 1st which you showed on your previous slide, is referencing by the ribbon cutting ceremony, we will no longer be forced to use Lock and Dam 52, it will be decommissioned or no longer needed to be raised?

MR. RISSLER: Again, I am not sure about the condition of Lock and Dam 52. All I am saying is that if required, Olmsted will be able to hold pool at that point in time.

CHAIRMAN HETTEL: As of August 29th?

MR. RISSLER: Yes, sir.

CHAIRMAN HETTEL: Okay. I would hate to see a ribbon cutting ceremony and it not be operational.

MR. POINTON: Are there any other questions for Mr. Rissler? Hearing none, thank you, sir.

Next on the program, we are going to move to the Lower Monongahela River Locks and Dams 2, 3 and 4 project. Mr. Steve Fritz from the Pittsburgh District will provide us with an update.

MR. STEPHEN R. FRITZ: Before I get started with an update on the Lower Mon project, I want to clarify something for Chairman Hettel on the Emsworth project slide regarding that money that is showing there as \$3 million in the Trust Fund and \$3 million in the CG (Construction, General) account. Those are funds that we would need to get to the total project cost of \$160 million up in that top right-hand corner. We do not have \$3 million of IWTF (Inland Waterways Trust Fund) funds in our pocket. We do not have \$3 million of Construction, General funds in our pocket for the project. Right now we have a little bit under \$600,000 remaining in that project to support the bulkhead painting contract.

Although it is showing that we need about \$6 million to complete the project that is what we would need to fund to get to the full \$160 million project cost. This is a good news story, because we are coming in about \$6 million less than the \$160 million Total Project Cost estimate. The charts maybe a little confusing, and maybe there is something we can do to change the charts. We don't have \$3 million to give back to the IWTF. I hope that clarifies that point.

CHAIRMAN HETTEL: Well, that confuses me more, Steve. You are stating that your total -- and correct me if I'm wrong, you say that you can finish this project for \$6 million less than the \$160 million cost figure?

MR. FRITZ: That is correct, sir. We are going to finish the project for \$6 million less than \$160 million.

CHAIRMAN HETTEL: Has not the \$6 million already been allocated?

MR. FRITZ: No sir. The allocation to date is two lines up from that, \$153.932 million. That is what has been allocated to date. To get to the full \$160 million cost figure, we would add those bottom two numbers together, the \$153.9 million and the \$6.1 million. That would get us to the total project cost, sir.

This project came in about \$6 million under budget, according to this slide. We have not requested funds for that project for a number of years, and we will not request any additional funds unless something really goes awry during the bulkhead painting.

CHAIRMAN HETTEL: I have no reason but to trust you, Steve.

MR. FRITZ: Trust me, Marty.

CHAIRMAN HETTEL: But the slide still shows the remaining balance from the Trust Fund of \$3 million.

MR. FRITZ: I checked this more, we have just under \$600,000 in our accounts. We have awarded the bulkhead painting contract, and the only thing we have left to do there is administer that contract, and then do the final project close-out. The \$600,000 that we have on hand should be sufficient for that. If there is money left from that, whatever balance is left of the Trust Fund that would go back for other projects to use. I hope that clarifies it. If not, we can talk more.

CHAIRMAN HETTEL: Offline.

MR. FRITZ: Okay great. Thanks, Marty.

MR. ALDRIDGE: I will look at retitling that remaining balance line. It is misleading.

CHAIRMAN HETTEL: Okay.

MR. FRITZ: Good morning. For the record, my name is Steve Fritz. I am with the Pittsburgh District. I am the program/project manager for megaprojects in the Pittsburgh District. I want to welcome Chairman Hettel, Mr. Smith and all of the Board members, the Federal observers and other distinguished guests. Thanks for coming to Pittsburgh.

Thank you for coming out to the Lower Mon project site at Charleroi yesterday. You saw a lot of work going on out there, and a lot of that is due to your efforts to keep us funded so that we can get that project done. I hope what you saw yesterday really demonstrates that we are putting that money to good use. Thank you for that support.

On this slide deck, I want to note that anything that I have changed from the last meeting is highlighted in red. At the last Users Board meeting, we showed that we were going to be fully operational in January of 2023. That has slipped to March of 2023. We had three or four high water events that has pushed out our schedule a little bit. That is an uncontrollable change. We can't do anything to buy that time back. We are always looking for ways to optimize schedule.

The other thing I want to point out on this slide is that the total estimated price for the project to achieve 90 percent project benefits, has moved from \$1.12 billion to \$1.23 billion. When you do the math on that, it actually works out to about \$14 million that the project price increased. I will explain that a little bit more on the actual funding slide.

Something I do want to note is we still anticipate that we are going to come in on this project well below that \$1.2 billion cost figure to achieve the 90 percent of project benefits, even with that \$14 million cost increase. That is all related to some of the contingency discussions that we have been talking about this morning.

The major risks that we have had with the project and I have reported on them in the past, is that we are not in the President's Budget for FY 2018 this year and we are not in the President's Budget for FY 2019. What that does is that poses a significant risk to not being able to award the next option for the Charleroi River Chamber Completion contract. You saw how congested it was at the project site yesterday. It would not be a good idea to award a third contract to finish the River Chamber Completion contract until those two contractors are out of the project site. Therefore, we would wait until those contracts are finished before we finish the River Chamber Completion contract. When we get the FY 2018 Work Plan, we will find out whether or not the Option number 3 of the River Chamber Completion contract can be funded.

Next slide. This is a slide you have seen many times before. There are no changes to the features of the project. The project scope is still the same. If there are no questions on this slide, I will move on to the next slide.

Next slide. "Lower Mon – Project Schedule." There are no big changes here either. The only thing that has happened differently on this slide are the red numbers that are in the "last reported completion" column, they moved from the "revised" column over one column to the left. Unless something changes before the next Users Board meeting, all those numbers will be black in that column.

Next slide. "Lower Mon – Ongoing/Pending Contraction Plan." This is a busy slide. It shows all of the work scheduled out at the Charleroi project site, either ongoing now or proposed to be done in the future. The Emptying Basin work has been completed already. You saw work going on at the monoliths M-22 to M-27 cofferbox area yesterday. You also saw

work going on at the River Chamber Completion base contract, and some of the work for contract option 1 and contract option 2 that was preceding.

If Work Plan funding is provided in FY 2018, we plan to award option 3 for the River Chamber Completion contract, which would finish up the middle wall proper for the Charleroi River chamber. We also plan on awarding the Stilling Basin if funds are provided through the Work Plan.

The last big item of work that we would plan on awarding in FY 2018 is the dredging contract. We awarded that contract last year, but we would award another task order for that in Fiscal Year 2018. The things that are at risk are the stilling basin and the dredging. But the biggest one that I am concerned about is the River Chamber Completion contract option 3, because that could cost us up to about another \$100 million and take maybe another four years of construction.

Project progress, with those high water events, there hasn't been much progress since the last report before the Users Board. I don't think we have made any significant progress on the M-22 to M-27 monoliths contract. The River Chamber base contract, we moved that from 84 to 88 percent completion from our last report. River Chamber Completion contract option 1 moved from 6 to 7 percent completion. The River Chamber Completion contract option 2 moved from 2 to 4 percent completion since the last Users Board meeting. I expect that those numbers are going to start to tally up pretty quickly now that we are into construction.

CHAIRMAN HETTEL: Steve, can you clarify for me your concern regarding the awarding of option 3 of the River Chamber Completion contract. I agree with your concern about getting the funding. Hopefully the FY 2018 Work Plan has the money in there for that funding. If the Work Plan, and I am going to put a "what if", if the FY 2018 includes your funding number, so that you can exercise option 3, when do you think you can start construction on that option?

MR. FRITZ: They can start nearly immediately. They would have to do shop drawing submittals and get the design aspects of it out of the way from the contractor's side. Then it becomes a matter of positioning themselves with the other work that they have ongoing.

At that point it would be how the contractor is going to fit that in with the other work so they can efficiently perform the work that they have already started and efficiently move on option 3.

CHAIRMAN HETTEL: Is that bringing in more equipment? Because it looked like you were still working on the upper end and the lower end of the lock, this is the middle monoliths. Do they bring more equipment in, or do they have to finish that using the equipment on the upper and lower end before they start?

MR. FRITZ: That would be the contractors' decision whether or not they wanted to bring in additional equipment. Personally I don't believe there is enough room to put a lot more

equipment out there. I don't think that would be something that they would do, although there is a possibility they would do that.

CHAIRMAN HETTEL: Well, not being an engineer, then help me understand. This is the same contractor that is working on the upper end of the lock, is that correct?

MR. FRITZ: Yes, sir.

CHAIRMAN HETTEL: They have to finish that before they can move down and start option 3?

MR. FRITZ: That is correct, sir.

CHAIRMAN HETTEL: That looks like it is going to be completed in 2023. Help me understand how they can go down and start that project when they are not going to finish what they have up there.

MR. FRITZ: The 2023 date, if you notice, I think that is the same for all of the river chamber work. I can refine this slide a little bit so it shows when we will be finished with the base work and the options.

CHAIRMAN HETTEL: That would be great so we can see the sequential work, I appreciate that.

MR. FRITZ: Yes sir. As you saw on your site visit yesterday, the base contract is moving very well at the project site, so there is a lot of that equipment that is being utilized now, or was being utilized to put those shafts in, those are available now for the other work. If no other questions, I will move on to the next slide.

“Charleroi Construction Images.” These are some construction photos from the project site. You saw a lot of this firsthand. You couldn't look right down into the coffer boxes yesterday. In the photo on the left-hand side of the slide, that was a dewatered cofferbox in the base contract, between monoliths M-2 and M-6. That is at the upper end of the river chamber, the upstream end of the lock. In the photo the right-hand side of the slide, the contractor is installing some socketed king piles for the cofferbox construction for monoliths M-23 and M-24 at the lower end of the lock.

Next slide. “Lower Mon Locks and Dams 2, 3 and 4 Financials.” There is a lot of red on this slide. Almost all of that is propagated by when we revised our cost estimate like we do every year, and we revised it in 2018.

I already mentioned that the total project cost went up \$13.8 billion. The cost estimate does take into account the savings that we had in dredging, which was pretty significant, \$30 or \$40 million below from what we had estimated. We are comparing the cost estimate to the baseline back from the 2014 time frame. For that baseline estimate, we didn't have a lot of clarity on the River Chamber Completion contract from the standpoint of a bidding perspective.

In 2015, we received bids for the River Chamber Completion contract. There was a big swing – I think there was about \$64-\$65 million left on the table between the low bid contractor and the next low bidder, and then it went up from there. With that clarity and knowing the potential for funding issues, in addition to the risk with those particular features of work, and when they would be constructed, our project cost estimate increased by almost \$14 million.

I want to stress again that we don't believe that it is going to take us \$406 million to complete the project – at the last Board meeting, I think it was \$392 million. It is not going to take us \$392 million or \$406 million to complete the project. We talked about those efficient funding levels at the last Users Board meeting, and the Lower Mon project was in the \$262 million, \$263 million range. That is a reflection, Mr. Chairman, of the effort we put into reducing those contingencies for work that we know that the contractors have performed, and they do it – they have worked out their kinks, we have worked out our kinks. Some of the things in the River Chamber Completion contract that we haven't done yet, when we started doing the floor system in there. That has got a little bit of a higher risk than the cofferbox construction, so we carry a higher risk for those things. If there are no other questions on this slide I will move on to the next slide.

CHAIRMAN HETTEL: Steve, you know me better than that. At the Chattanooga meeting in March, the efficient funding numbers totaled \$261.5 million, and this slide reflects \$406 million.

Is that because this is what you have to report to Headquarters, and the number that you gave us at the last meeting is what you think you can do to complete the project? Is that a reduction in contingency?

MR. FRITZ: Yes sir. It is a reduction in contingency. But the \$406 million figure gets us to the \$1.23 billion number, similar to the Emsworth major rehabilitation project. However, we do not believe that we are going to need all of that money to complete this project.

CHAIRMAN HETTEL: I understand that. And I don't mean to jump ahead of you here, though, on your slide number 8, your "Time and Scorecard" slide, you are showing a Total Estimated Price of \$1.113 billion versus \$1.230 billion baseline cost, leaving \$117 million in contingency.

Do we subtract \$75 million that you said you gave us back at Chattanooga, so that \$117 million is actually \$117 million minus \$75 million?

MR. FRITZ: The numbers you are throwing at me are kind of confusing me. I don't recall the \$75 million from Chattanooga. But the delta between -- can you repeat your question. I just want to make sure I understand it.

CHAIRMAN HETTEL: OK. Actually I rounded it up - I think it was \$74.6 million. That is the difference in the efficient funding numbers that were given to us at Chattanooga. That says \$261.5 million - you had a little bit of an increase. This shows \$406 million.

When you look at your Total Estimated Price, it says you are looking at coming in at \$1.113 billion?

MR. FRITZ: Yes, sir.

CHAIRMAN HETTEL: Versus the \$1.230 billion of costs. That's a differential of \$117 million?

MR. FRITZ: Yes, sir, I follow you.

CHAIRMAN HETTEL: The \$74.6 million reduction that you gave us in Chattanooga, is that subtracted from the difference in the Total Estimated Price and the baseline cost of \$1.23 billion?

MR. FRITZ: No sir. I mean, the estimated completion cost is the \$1.113 billion.

CHAIRMAN HETTEL: I understand that.

MR. FRITZ: I guess I am not understanding your point.

CHAIRMAN HETTEL: I guess my point is, the efficient funding numbers that were given to us at Chattanooga was \$261.5 million to complete the project?

MR. FRITZ: Yes. I remember that number, yes, sir.

CHAIRMAN HETTEL: The difference between Total Estimated Price and baseline cost is \$117 million. Does that mean you are still carrying \$117 million of contingency of that \$261 million?

MR. FRITZ: No sir, that is not included in the \$261 million. We are actually carrying about \$150 million of contingency for the overall project. We've used about \$26 million or \$28 million of that, and that gets us closer to the \$117 million figure.

CHAIRMAN HETTEL: So, if you come in at the \$1.113 billion cost figure, does that mean the \$261 million is reduced by \$117 million?

MR. FRITZ: No sir, it will not reduce any further than that, no. Right now we believe that \$261.5 million figure is the best we can do. As we move through the project, we can reduce those contingencies on that \$261 million figure if appropriate.

CHAIRMAN HETTEL: So the \$261.5 million cost figure has no contingency?

MR. FRITZ: It has contingency in it, but it has contingency in it that is realistic for the work that we know has been done in the past and is repetitive. For things that have not been awarded, we have the full contingency from the cost estimate in those numbers.

CHAIRMAN HETTEL: Can you tell us how much contingency is included in the \$261.5 million cost figure?

MR. FRITZ: Not off the top of my head. I might have it in my back up materials.

CHAIRMAN HETTEL: The next meeting will be fine if you don't have it.

MR. FRITZ: I think it is somewhere between \$45 and \$55 million.

CHAIRMAN HETTEL: Great, thanks. Maybe you can just update us, then, at the next meeting.

MR. FRITZ: Yes, sir.

CHAIRMAN HETTEL: Thanks, Steve, and I appreciate you indulging me on all my questions.

MR. FRITZ: Thanks for explaining more and more. If there are no other questions on this slide, I will move on to the next slide.

“Lower Mon Locks and Dams 2, 3 and 4 Project Schedule.” This is the project schedule and this was shown at the last Users Board meeting. There are really no changes to slide other than I added an “S” as a schedule designator for removal of Lock and Dam 3 for the design for that to begin. There is a chance that could begin earlier, but right now we have it scheduled in 2020.

If there are no questions on that slide, we will move onto the next slide, the “Time and Cost Scorecard” slide. At our mega projects briefings, we always brief with no contingency associated with the project. For these meetings, we historically have shown with the contingency. The thing to point out here is this acronym, “CPI” that stands for “Cost Performance Index.” If that number is above 1, we are under budget for the project. There is a formula that is used to calculate the estimated cost of completion of the project. By using that formula, we come out at this \$1.12 billion number.

When we take the work that we have already awarded and the contingency that we believe is realistic for that work, and the work that has not yet been awarded, and we add all of those together, we come out even a little bit below the \$1.12 billion cost figure, so even a little bit better. That is just a reflection, that Cost Performance Index, that uses past to predict where you are going to end up, but in this case, it is pretty close.

The only thing I want to point out on this slide, is with respect to the project schedule in the upper right hand corner of the slide, we are all waiting to hear what is happening in the FY 2018 Work Plan. Until the project gets put back into the President's budget, I am going to continue to show that stop light as yellow, because we have to proceed with caution there. We just don't know what is going to happen with funding.

If there are no questions on this slide that concludes my presentation on the Lower Mon project.

MR. POINTON: Are there any other questions for Steve?

CHAIRMAN HETTEL: I was waiting for Steve to get to his last slide. Your FY 2018 funding, and I am hoping the FY 2018 Work Plan comes through and gets you the \$99 million you requested for efficient funding.

Yesterday we heard on the site visit that the value of the River Chamber Completion contract option 3 for your contract is \$32 million?

MR. FRITZ: Yes sir that is roughly the contract bid for that option.

CHAIRMAN HETTEL: OK. Help us understand the difference between the \$99 million that you are requesting for efficient funding and the \$32 million for Option 3 of the River Chamber Completion contract? Where is that extra \$67 million going to be spent?

MR. FRITZ: We want to award the next task order for the dredging contract. We want to award the Stilling Basin contract. We want to award option 3, of course, and then there is Engineering and Design during Construction (ED&C) and Supervision and Administration (S&A) of the contract. Part of that, what we have to do, because we would award option 3 now, that extends our construction a little bit, is we have to make sure we fully fund that Engineering and Design during Construction and Supervision and Administration through when that work will be completed. Because we may never get funded for it in future budgets or future appropriations. Although in the past three years, we have talked a lot of times about that trend, the trend now is that we are getting that funding through the Work Plan. That is not an in-the-bank number, and we cannot depend on it.

CHAIRMAN HETTEL: How much of this \$99 million is for ED&C and S&A through the contract?

MR. FRITZ: I think probably about \$10 million or \$14 million. I don't know the number off the top of my head. It is probably \$10 million to \$14 million.

CHAIRMAN HETTEL: That was the last discussion point I had. Thank you very much Steve. Greatly appreciate it.

MR. FRITZ: Okay. Anybody else? Okay, thank you all very much.

MR. POINTON: Thanks, Steve. Next on the agenda we have Mr. Don Getty from our Nashville District office, who is actually going to be doing double duty today. Mr. Getty will give us an update on the Chickamauga Lock project as well as the Kentucky Lock project. Don, please proceed when you are ready.

MR. GETTY: Good morning, Chairman Hettel, Mr. Smith, other Users Board members, distinguished guests. My name is Don Getty. I am the project manager for the Kentucky Lock addition project, and as Mark pointed out, I will be briefing Chickamauga Lock this morning as well because Adam Walker (Nashville District project manager for the Chickamauga Lock Replacement Project) was not able to attend this morning's meeting.

First up, the Chickamauga Lock "Bottom Line Up Front" slide as well as agenda of what I plan to present today. The first two items on the slide are two ongoing construction projects, the Lock Excavation Construction effort and the Lock Chamber Construction effort, those contracts that are going well, and I have a few slides later in my presentation to demonstrate that. I also want to talk about contingencies and our cost estimates. I have a few slides on that as well. The last item on the slide concerns our Post Authorization Change Report (PACR) that we are getting close to finishing. A Post Authorization Change Report is necessary because the Chickamauga Lock project is exceeding its 902 cost limit, and we have to go back to Congress to get the project reauthorized.

Next slide. "Chickamauga Lock Project Overview." Project overview, this slide shows past, present, and future construction contracts. I am going to concentrate on the two yellow boxes, those are our two ongoing construction contracts. The Lock Excavation contract is winding down and the Lock Chamber Construction contract is starting up.

Next slide. This is our Lock Excavation contract, it is ongoing. It is about 60 percent complete. The goal of this contract is to excavate most of the rock necessary for the new lock so we can start placing concrete, which will be in the next contract. The contractor also had to put in 44 large inclined rock strand anchors in a 51 foot long secant pile retaining wall. They are finished with those and is concentrating on rock excavation. It is a \$34 million contract with no significant cost growth to date, and the contractor is scheduled to complete their work this fall. The contractor is about six days behind schedule, but is moving in the right direction in closing the gap.

Next slide. This is a picture taken a few weeks ago of the project site. We are looking downstream from the dam. For those of you who were able to join us on the site visit on the last day of February before the Users Board meeting, it looks a little bit different because we have progressed a lot with the rock excavation. One notable thing is that the contractor is excavating less rock on the right-hand side of the project site than they are on the left-hand side, and they are going to be placing less concrete on the right-hand side, because we already had built part of the lock wall with the cofferdam on that side. You can see the lock wall on the right side of the photo. That is an innovative approach that the contractor is using at the Chickamauga Lock project site to incorporate the cofferdam and the lock wall, and you can start to see that now.

When we talk about cost contingencies, I want to point out a couple of things about the Chickamauga project that we have already experienced in the past month. Even though, Chairman Hettel, we are working in the dry, we are working in a karstic limestone environment. Whenever Mr. Walker and I present on this project, we talk about the challenges of working in a karstic limestone environment.

In the last month, we have had two little episodes. We had a large slab of rock that dropped five inches, which is really unusual. We had to stop work for a couple of days to assess that event. We also have some rock that is not as good of quality as we would like to build our foundation on. We are going to have to excavate additional rock in this contract. That is going to add cost to this project, as well as the next contract, because when we excavate additional rock, we have to backfill that with concrete. As a result, for the next contract we will place more concrete.

Those are not huge cost numbers, they are going to be less than a million dollars. But they do illustrate why we have contingencies in our cost estimates, because we can't predict what we are going to find until we get out there and excavate on the project site, especially in a karstic limestone environment.

Next slide. Moving onto to our Lock Chamber construction contract. This is our \$240 million lock chamber construction contract. We awarded it back in September 2017. We awarded the base contract for about \$29 million. The contract has 13 options, so we still have a lot left to do. The goal of this contract is basically to place all the concrete for the lock chamber and get that lock chamber functioning and install all of the mechanical and electrical features as well. It will not build approach walls and will not demolish the cofferdam.

The goal of the base contract, the \$29 million, is basically to get the concrete batch plant operational so that when the existing contractor finishes excavating rock, we will be ready to start placing concrete as soon as he is finished. That is the goal. They are on track to do that. They are well along in getting this batch plant constructed.

Moving on and talking about contingencies. Mr. Walker and I developed slides like this to help show you the type of contingencies that we have in our cost estimates. I want to concentrate on the bottom line. The Chickamauga Lock project is showing \$128 million in contingencies for remaining costs. Our remaining costs are about \$445 million, and you add the \$128 million to that to get our total remaining costs.

The \$128 million represents an 80 percent confidence level as Mr. Jacobs explained to you earlier. We got this cost estimate amount certified in June of 2016, we are on a two-year cycle and we are about to certify a new total project cost estimate. These numbers are going to change as a result. We don't think there's going to be significant change, but there will be change. One of the things that is going to change is this contingency, because we awarded a \$240 million contract, and that has taken a lot of risk out of our cost estimates. As a result, these contingencies will go down. There will still be an 80 percent confidence level when we put them out; it is just going to be a lower risk, so those numbers are going to be lower.

This cost estimate is now back in Mr. Jacobs' lap. His organization does Agency Technical Review. We have worked great with them. They have been very responsive, as far as meeting our schedules and putting the level of effort we think that goes into these reviews. We expect to have this new cost estimate certified within a couple of weeks, unless Mr. Jacobs tells us otherwise. I think that is the goal anyway.

In August when the Board will meeting again in Paducah, Mr. Walker will have some new numbers. He will brief those, and he will be able to explain what changes were made from June 2016 to June 2018, especially with regard to contingency levels.

CHAIRMAN HETTEL: Don, can you give us an idea of whether that – you are showing right now a baseline cost, which includes risk, of \$755 million. Can you give us any indication if that is going to go up or go down?

MR. GETTY: I can't. I think it is not going to be a huge change. One of the reasons why is because the bids for our \$240 million contract came in pretty close to what we originally had in our June 2016 estimate. I don't think there are going to be huge differences. It is going to be at a different price level. This cost estimate is at a 2017 price level. The new cost estimate will come out at a 2019 price level, so you are going to have two years of inflation with that. So, make sure you compare apples to apples when you look at those cost numbers. But, I don't think there is going to be a huge change.

CHAIRMAN HETTEL: But that won't increase your \$240 million fixed price contract, correct?

MR. GETTY: No sir, it will not. One thing I do want to point out is when we do these cost and schedule risk assessments to determine our contingencies, we are actually doing a separate one for this \$240 million contract, the ongoing work versus the future work, because the risks are so different. We are actually doing two different ones. We will have contingencies for that \$240 million, and then for the rest of the project as well.

CHAIRMAN HETTEL: Is it a fair statement with a fixed price contract, I understand you have got to have contingencies for contract modifications?

MR. GETTY: Yes, sir.

CHAIRMAN HETTEL: Can you tell us if that contingency number is going to go down?

MR. GETTY: Yes, I think that -- this number is going to go down almost certainly. I cannot tell you whether this number is going to go down, but this number is going to go down, I think, as a result of less risk.

CHAIRMAN HETTEL: Won't the fully funded amount go down if the contingency goes down?

MR. GETTY: It may, and I don't know the apples to apples on the price. Part of it is, we are not finished with the review process.

CHAIRMAN HETTEL: I understand.

MR. GETTY: It may be in a couple of weeks, you can get that information from Mr. Walker if you would like. I am sure he is going to present this at the User Board meeting in August.

CHAIRMAN HETTEL: Okay, thanks.

MR. GETTY: Yes, sir.

MR. DURRETT: Mr. Chairman, one thing to clarify is, this contract has 13 options on it, and they are all dependent upon Work Plan money. There are still risks that if we don't exercise the option, we basically have canceled the contract. We would have to go back and re-advertise this contract all over again or anything that does not fall into place.

There is a lot of risk. Even though you think people have awarded a \$240 million contract, if we cannot exercise the options, we will be forced to go back in and let the contract expire. They will be forced, then, to let that contractor finish, go out, and reacquire the contract. There is still a lot of risk in that \$240 million contract.

CHAIRMAN HETTEL: Is it not an option to work with the current contractor and extend the option?

MR. DURRETT: If he is willing.

CHAIRMAN HETTEL: Yes.

MR. GETTY: That is a great lead into the next slide, which shows you the main components of our contingencies for the Chickamauga Lock project. When we do our cost and schedule risk assessment, this is what came out of it. Of that \$128 million in contingencies, 63 percent of that risk is associated with funding.

As Mr. Durrett said, that funding risk is certainly still at play in this \$240 million contract. I think what Mr. Walker said, if we don't receive those minimum funding amounts that were presented at the Users Board meeting in Chattanooga, then this contract potentially goes away, and we have to re-advertise, and those costs almost certainly would go up.

When we do this cost and schedule risk assessment for the \$240 million contract, I suspect funding will still be a very large driver in that risk assessment portion and contingencies associated with that contract.

CHAIRMAN HETTEL: Don, when the FY 2018 Work Plan comes out and if you get your request of \$78 million, does that 63 percent get reduced?

MR. GETTY: It probably would in the next two-year cycle. I doubt if it is in this cycle. That work has already been done and is under review.

CHAIRMAN HETTEL: I guess that goes back to whether or not we can reconcile our contingency on an annual basis.

MR. GETTY: Correct. The second big driver are construction modifications. I mentioned this need to add more concrete, excavating additional rock, adding concrete back in. That concrete is part of these construction modifications, so that is an indication of how it gets into play on our contingencies.

Next slide. "Chickamauga Lock Financials". This is our financial slide. There are not supposed to be any changes to these numbers since the last Users Board meeting. That was our intent anyway. We have not had any financial changes to the project. We did update on this slide some of the progress on the project. We are showing lock excavation at 53 percent financially complete. We are actually at 59 percent since this slide was developed, and the lock chamber is close to 30 percent financially complete for the awarded work.

Next slide. "Chickamauga Lock Project Schedule of Remaining Work." This slide shows our existing and proposed contracts. Again, no change from our Chattanooga meeting.

Next slide. "Chickamauga Lock Project Time and Scorecard." I wanted to show this slide.

Next slide. "Chickamauga Lock Replacement S Curve." This is our earned value metric slide. It has some of the same information from the previous slide, but it shows it graphically, which I like better, with the red dash lines showing you our expected versus black, which are planned. Early on our earned value metrics for both Chickamauga and Kentucky, we are showing a great path right now. We have not dipped into our contingencies. We have not had that big cost increase. Now, when these modifications come in on these karstic limestone issues, those lines will change. You probably won't hardly see it on this slide, but we will dip into contingencies as a result of that.

Next slide. "Chickamauga Lock Project Schedule." This was just a schedule slide. I do want to point out, I hadn't talked about the PACR, but Mr. Walker has updated the cost estimates. The updated cost estimate that should be certified in a couple of weeks will go into our PACR. Our plan is to have that approved by Headquarters in July and hopefully have a new reauthorized amount to get into the next water resources development act. We don't know the exact schedule for that, but that is our hope and desire, and that is why we are pushing to get that PACR approved by Headquarters by July.

CHAIRMAN HETTEL: Don, when you say next WRDA, is that for a WRDA in 2018, correct?

MR. GETTY: Yes sir, that is correct. I don't know that we have an exact schedule on when this has to be in there. We are trying to do it as fast as we can, that is the bottom line.

Next slide. "Chickamauga Lock Summary and Challenges." To summarize, ongoing construction is going well. As Mr. Walker pointed out, if we don't get the funding amount, this

\$240 million contract is at risk, and we want to have this PACR approved by Headquarters in July, that is our goal.

Subject to your questions that concludes my presentation on Chickamauga Lock.

CHAIRMAN HETTEL: The \$78 million requested for FY 2018, how many options does that cover on the fixed price contract?

MR. GETTY: Our goal was four total options, and that can depend on any type of contingency that can happen from now and then, but that is our goal.

CHAIRMAN HETTEL: Do you know how many options in FY 2019?

MR. GETTY: Four as well.

CHAIRMAN HETTEL: Four as well?

MR. GETTY: For the \$99 million, for efficient funding.

CHAIRMAN HETTEL: Okay. Thank you.

MR. GETTY: Moving on to the Kentucky Lock project.

Next slide. The Kentucky Lock “Bottom Line Up Front” slide. We have two ongoing construction contracts as well. One of the ongoing contracts is our big downstream cofferdam construction contract. I have a few slides on that contract to show a little later. Construction is going well. We also have a small \$4 million Site, Demolition and Utilities contract, which we are just starting work on it, and there are no issues on that contract as well.

I also want to cover our contingencies included in the Total Project Cost Estimate, and then I am going to talk about our next big contract, the Downstream Lock Excavation contract, that we are trying to get awarded by the end of September of this year. That contract has been consuming a lot of my life right now, it is a \$25 to \$100 million contract, and it is on the critical path. It is going well for award in September. We plan to advertise it in July and hope to have a bid opening around August 29th. Hopefully at our next Users Board meeting, instead of \$25 to \$100 million, we can give you an exact number for it.

CHAIRMAN HETTEL: Don that is a pretty big spread.

MR. GETTY: It is, and that is what the Federal Acquisition Regulations will allow us to tell you.

CHAIRMAN HETTEL: Hopefully you are not telling your contractors that are going to bid on this that.

MR. GETTY: Well, we tell them this as well. They can develop their own bids. That is the whole point, we want them to develop their bids independently. We don't want to provide them any type of guidance and/or misleading guidance. We keep our government estimates close hold until we have a bid opening.

What I will tell you is that our efficient funding levels do represent what we think this contract is going to cost.

CHAIRMAN HETTEL: Okay.

MR. GETTY: That is about the best I can tell you.

Next slide. "Kentucky Lock Project Overview." Again, this slide shows the past, present, and future construction contracts, our two current ongoing contract are shown in the yellow boxes. I will talk about the Downstream Cofferdam contract, our big contract. Our Downstream Lock Excavation is shown in the red box in the upper right of the slide, and that is what we are looking to award this September.

I will tell you that we don't have the Work Plan amount yet, and we certainly don't have the money, but to award this contract, we don't have to have the money until closer to September. We are not worried about the timing of the money, it is just the amount. We are configuring that as a base contract with options. We will probably have 11 options, and we will configure that base contract to make sure that it has a scope in it so that we can award it based on what our actual Work Plan amounts are, once we find those out hopefully in a few days. We are not planning to advertise that contract until July, so we have time to change that contract before we put it on the street.

Next slide. "Kentucky Lock Downstream Cofferdam Contract." This slide shows our ongoing downstream cofferdam contract, very challenging construction.

Next slide. The upper-left hand slide shows you our lift-in approach, very similar to the Olmsted project. We have a gantry crane. The 3-D rendering in the upper left corner. In the bottom right of the slide is the gantry crane being erected. Since this picture was taken, we have finished the gantry crane, and it is operational. It is meant to lift these concrete shells just like they did at Olmsted.

We also have a traditional cofferdam made out of sheet pile cells. This slide shows you our first shell, the sheet pile cell template in place. We have since placed sheets for this. We have not finished it, but have made progress. The water has finally come down, so it has helped us to progress the project on a normal pace.

Next slide. Part of the cofferdam we are building is similar to the Chickamauga project cofferdam. We are building a concrete wall that will be incorporated in the future lock wall. We won't have to demolish it like we do traditional cofferdams. We are building ten of these shells that we are going to lift in place and then fill with concrete and then build up a wall.

This is a picture of two of our first ten shells. The first shell in the foreground of the photo has wall armor concrete; the shell in the background of the photo just has reinforcing steel. We hope to set the first shell in July. By the next Users Board meeting when you visit the project site, hopefully we will have set both these shells in place, and you will see those after they have been set in the river. We have about another two years left on this contract. Over the next year, we plan to set all of these ten shells if Mother Nature will let us.

Next slide. "Kentucky Lock Total Project Cost Estimate." Here is Kentucky Lock's contingency slide. We are showing a higher amount of contingencies because it is a larger project. Percentage-wise, Chickamauga was at 29 percent contingencies based on remaining costs. Kentucky Lock is 28 percent, so it is very close, similar level of risk, but totally different and independent cost and schedule risk assessment. The project development team sits down for two days, and we look at all of the possible things that could go wrong on the project. We assign probability and consequences, and costs to those. Ultimately it comes up with a number, and we choose the 80 percent confidence level number. In this case, they just happened to come out very close to the same percentage.

Kentucky Lock is on a two-year project cost estimate cycle. We got our project cost estimate certified in January of 2017, so we are going to be shooting for January of 2019 for our next certified cost estimate. We plan to start this new project cost update in September after we have our bid opening in August. We want to wait until we have that bid opening and know those numbers before we start on this new cost estimate. These project cost numbers should change by January (2019).

CHAIRMAN HETTEL: The downstream cofferdam contract, once you get the cofferdam installed, will that will reduce some risk?

MR. GETTY: It will, but it certainly won't eliminate them.

CHAIRMAN HETTEL: I understand that. Then you have the lock excavation contract?

MR. GETTY: Yes, in Chickamauga.

CHAIRMAN HETTEL: Correct, but once you get the lock excavation completed, and of course with the downstream cofferdam, then you are doing everything in the dry, and your risks should subside; is that a fair statement?

MR. GETTY: Yes, they will go down, and it will go down naturally as you progress the project, but yes, they will go down.

CHAIRMAN HETTEL: Okay.

MR. GETTY: Our two big risk drivers at Kentucky Lock and at Chickamauga Lock are the geology, the karstic limestone geology, and the need for more concrete. Even though you have concrete, you can always have problems with them. One issue we have now is fly ash. It is getting harder for us to find fly ash. We may be doing concrete modifications if we can't get

fly ash to get in our contract. It is amazing, the type of things, and we can try to cover those in our cost and schedule risk assessment, those kind of things. Those are the kind of things that go in these contingencies.

CHAIRMAN HETTEL: I take it the TVA (Tennessee Valley Authority) power plants don't produce fly ash anymore.

MR. GETTY: They are not burning enough coal, and we are losing a lot of these great sources of fly ash. That is just an example.

Also on Kentucky Lock, recently we found a large concrete slab that wasn't in the as-builts while we were working under water, and we spent two weeks removing it. That is a cost increase. But once we stop working below water that does eliminate a lot of those types of risks.

Next slide. This slides shows the big drivers that affect our contingency. If you remember, Chickamauga's biggest driver was funding at No. 1, at Kentucky Lock funding is No. 2. I think a lot of that is probably due to our geology and the nature of the project site versus the project site at Chickamauga Lock. We still have our downstream cofferdam, where Chickamauga had already built their cofferdam when they did their cost and schedule risk assessment. When we redo our cost and schedule risk assessment this fall, those certainly could flip-flop, but there will be changes.

Next slide. The "Kentucky Lock Financials" slide. There are not supposed to be any changes in our financials since the Chattanooga Users Board meeting. The only change shown on this slide is our award and progress on the Site, Demolition and Utilities contract.

Next slide. The "Kentucky Lock Project Schedule" slide. There are no changes to the project schedule from the Chattanooga Users Board meeting.

Next slide. The "Kentucky Lock Project Time and Cost Scorecard" slide. This is our earned value metric scorecard. We are in the green. We are early on in this process. We are not showing any trends or concerns at this point.

Kentucky Lock is also exceeding our 902 cost limit. We are about a year behind Chickamauga, so we are working on a PACR that is going to be the same as our economic update. I have mentioned the economic update before. We are getting close to our final economic runs on our economic update that is going to lead to a new benefit to cost ratio for the project. That report will be 95 percent of the PACR report. Our goal is to have that approved by our Division office in September. We may not have those BCRs by the August Users Board meeting, but certainly by the meeting after that, we will have a new benefit cost to ratio for the project.

CHAIRMAN HETTEL: A benefit to cost ratio but not a project cost estimate update.

MR. GETTY: Our cost estimate update is on a little bit different cycle. That is going to be in January before we get certified, because it will be based on the --

CHAIRMAN HETTEL: You just went through a cost estimate update last year that increased the cost it by the \$397 million; is that correct?

MR. GETTY: Yes sir, that is correct.

CHAIRMAN HETTEL: And your next project cost update is scheduled for when?

MR. GETTY: It is scheduled on a two-year cycle. The last project cost update was done in January of 2017, the next one will be done in January of 2019, so this coming January.

Next slide. The "Kentucky Lock Project S Curve" slide. The earned value metrics in graphic form, we are tracking below our planned amount. We did a \$1.7 million Value Engineering change proposal that dropped us down. When we do this slab removal modification that is going to take that up. It won't take us up in our contingencies, but it will move a fraction of that. This just shows you we have not gone into our contingencies on the project.

Next slide. The "Kentucky Lock Project Schedule" slide. You can see on this slide an entry for the economic update showing hopefully our approval in September of 2018 by our Division office.

Next slide. The "Kentucky Lock Summary and Challenges" slide. Construction at the project site is going well. Traffic levels are very healthy at the Kentucky Lock, so I think that is going to bode well for our economic update. We are on track to award the Downstream Lock Excavation contract by the end of September.

Subject to your questions that concludes my presentation on the Kentucky Lock project. Thank you very much.

MR. POINTON: Thanks very much, Don, I greatly appreciate it. That was the last scheduled presentation on the agenda. Moving on to the public comment period. I have no indications that anyone wishes to make a public comment.

MR. MATTHEW RICKETTS: I don't want to make a public comment, but before we move on. For the individual presentations that we receive at these meetings on the priority projects, I know we don't know what is in the Work Plan yet and if the LaGrange Lock will be something new, but if it is, could I request that we have a full breakdown at our Paducah meeting of what that project is and an overview like this. It may have been done before, but if it is not in the Work Plan, I guess it is not as important. But if it is, kind of a full overview, an update, and particularly the project details and the timing given the 2020 emphasis with the major maintenance planned for the Illinois Waterway.

MR. POINTON: Well, either way, whatever comes out of the Work Plan, we will give you a full update, a detailed presentation at the next meeting in Paducah, regardless of whether it is or isn't, because it is going to be different depending on what happens with that.

MR. RICKETTS: Okay, thank you.

MR. WOODRUFF: Along those same lines, it has been a little while since we have heard anything on the Brazos River and Colorado Locks study. I know that they came out with a Tentatively Selected Plan, got some comments on it, and I am just curious as to where that potential project stands, and maybe if we could get a brief update at the next meeting.

MR. POINTON: Sure, I will put that on the tentative agenda for the next meeting as well. Now are there any public comments? All right, hearing no one coming forward to make any comments, we will move on.

We will have our closing remarks by Mr. Smith and Chairman Hettel. Before turning the microphone over to Mr. Smith I would like to thank the Pittsburgh District staff for hosting today's meeting of the Users Board and yesterday's site visit to Lock and Dam 4 and Charleroi. Outstanding job. I would especially like to recognize Ms. Elaine Lisk, from the Pittsburgh District, who led the Pittsburgh District team, and I know she had a lot of great people on her team helping her support the meeting and the site visit, so I appreciate that. I would also like Colonel Lloyd to know that we do truly appreciate all of the outstanding help that we got with the tour yesterday and with our meeting today. With that, Mr. Smith.

MR. SMITH: Thanks, Mark. I am appreciative of the dialogue and the level of discussion about how we conduct our construction projects with respect to the Inland Waterways Trust Fund. I think it is healthy. We will make a lot of notes from this, Chairman Hettel, and make sure the next time we continue to refine. You have given us some really big things to think about, I think, and I know you will continue to do that. I think it is healthy for us, and we will try to refine our piece of it.

I know there is a bit of a mystery with this Work Plan. I think with some certainty, I can say with 80 percent certainty, we will have the Work Plan by August, and we will talk about it in a little more detail. If not, we are really hurting, because then we will be getting this record funding with one month to go as opposed to getting record amount of funding with one quarter.

Anyway, I do appreciate the dialogue and keeping us sharp. We will think through it. I know General Spellmon looks forward to the next meeting. There is going to be a lot going on there. We have a lot of visibility on things external and internal to the Board, so it should be particularly exciting.

With that, my appreciation of what the District and the Division continue to do for these meetings, so thank you very much.

MR. POINTON: Thank you Mr. Smith. Mr. Chairman.

CHAIRMAN HETTEL: First off, thanks to the Users Board members for your participation in this Federal Advisory Committee. As you have heard Senator Casey state and Colonel Lloyd state, and the folks from the Great Lakes and Ohio River Division state, it is important, I appreciate you guys being here and being involved.

We will see, hopefully we can get some idea on how we can more efficiently manage our Trust Fund dollars through a reduction in these contingencies that we are carrying. As I stated, \$439 million of contingency on three projects is a big number. We will see what that looks like at our meeting in Paducah the end of August.

The only thing we need to look at on that timing, Mr. Pointon is whether the meeting takes place prior to or after the ribbon cutting ceremony at Olmsted. As soon as you can get that information out to us, the folks can plan to be there, I appreciate it.

MR. POINTON: Absolutely, and I know I will be working with Mr. Getty and the staff of the Nashville District to go ahead and get that squared away. Nashville District is stepping in to help us set up the next meeting even though it is within the Louisville District's geographic jurisdiction, because the Louisville District is consumed with planning the ribbon cutting at Olmsted.

CHAIRMAN HETTEL: I don't know that we need to do -- Users Board members, I am assuming you will be there for the ribbon cutting ceremony, so there is probably not a need to do a tour of Olmsted.

MR. POINTON: We are planning to do a tour of Kentucky Lock.

CHAIRMAN HETTEL: Okay, good deal. That is all I have. I will open it up to any other Users Board members for any other comments. Thank you again for your participation.

MR. POINTON: Mr. Woodruff? Anybody else? Any Board members wishing to make a closing comment? I go to you first, Matt, being the Vice Chairman.

MR. WOODRUFF: No thank you.

MR. POINTON: No comments. Anybody. All right, having heard no additional comments from the Board members, I would like to request a motion to adjourn the meeting.

MR. MECKLENBORG: So moved.

MR. POINTON: Do I have a second?

MR. FEWELL: Second.

MR. POINTON: Second, all right. All in favor of the motion, please say "Aye".

THE BOARD: (Unanimous) Aye.

MR. POINTON: Any nays? Hearing none, I declare the 87th Meeting of the Inland Waterways Users Board adjourned. Safe travels everyone and I look forward to seeing everyone at the 88th Meeting of the Inland Waterways Users Board in Paducah, Kentucky in late August.

(The proceedings were concluded at 11:43 a.m.)

REPORTER'S CERTIFICATE

I hereby certify that the transcript of the proceedings and evidence contained herein are a true and accurate transcription of my stenographic notes taken by me at the time and place of the within cause; that the transcription was reduced to printing under my direction; and that this is a true and correct transcript of the same.

June 4, 2018

Pamela L. Beck
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