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**Inland Waterways Users Board Meeting No. 97**  
**Courtyard by Marriott Walla Walla**  
**Walla Walla, WA**

**August 16, 2022**

**Minutes**  
**Inland Waterways Users Board**  
**Meeting No. 97**  
**Courtyard by Marriott Walla Walla – Blues 1 and 2 Rooms**  
**Walla Walla, Washington**

August 16, 2022

The following proceedings are of the 97<sup>th</sup> Meeting of the Inland Waterways Users Board held on the 16<sup>th</sup> of August 2022, commencing at 9:00 a.m. This is the second meeting of the Inland Waterways Users Board held for 2022. Mr. Spencer Murphy, Chairman of the Inland Waterways Users Board presiding. Inland Waterways Users Board (Board) members present at the meeting included the following:

MR. MARTIN T. HETTEL, Board Member, American Commercial Barge Line LLC (ACBL).

MR. DAMON S. JUDD, Board Vice Chairman, Marquette Transportation Company LLC.

MR. W. SPENCER MURPHY, Board Chairman, Canal Barge Company, Inc. (CBC).

MR. LANCE RASE, Board Member, CGB Enterprises, Inc. was represented by MR. CHARLES GOTTBATH.

MR. ROBERT D. RICH, Board Member, Shaver Transportation Company.

MR. JEFF WEBB, Board Member, Cargill, Inc., Cargo Carriers, Cargill Marine & Terminal.

Board Members not in attendance were MR. DAVID LOOMES of Continental Cement Company, MR. DENNIS OAKLEY of Bruce Oakley, Inc., MR. TIMOTHY POWER of SCF Marine, Inc., MS. CRYSTAL TAYLOR of Ingram Barge Company, and MR. W. MATTHEW WOODRUFF of Kirby Corporation.

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. STACEY E. BROWN, from the Office of the Assistant Secretary of the Army for Civil Works, Headquarters, Department of the Army, Washington, D.C.

MS. HEATHER GILBERT, Policy Advisor, Office of Coast Survey, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, Silver Spring, MD.

MR. WILLIAM K. PAAPE, Associate Maritime Administrator, U.S. Department of Transportation, Maritime Administration (MARAD).

MR. RICHARD HENDERSON, Transportation Services Division, U.S. Department of Agriculture (USDA).

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

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

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

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

MR. STEVEN D. RILEY, Alternate Designated Federal Officers (ADFO), Inland Waterways Users Board, U.S. Army Corps of Engineers, Institute for Water Resources, Alexandria, Virginia.

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

Program speakers in scheduled order of appearance were as follows:

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

MG William H. Graham, U.S. Army Corps of Engineers, Headquarters, Users Board Executive Director and Deputy Commanding General for Civil and Emergency Operations.

Mr. W. Spencer Murphy, Chairman, Inland Waterways Users Board, Canal Barge Company.

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

Mr. Robert D. Rich, Member, Inland Waterways Users Board, Shaver Transportation Company.

Mr. Stephen R. Fritz, U.S. Army Corps of Engineers, Pittsburgh District, Program Manager for Mega Projects.

Mr. Andrew J. Goodall, U.S. Army Corps of Engineers, Rock Island District, NESP Program Manager.

Mr. Craig R. Pierce, U.S. Army Corps of Engineers, Little Rock District, Deputy District Engineer.

Mr. Orlando Ramos-Gines, U.S. Army Corps of Engineers, Galveston District, Senior Study Manager.

Ms. Stephanie L. Hall, U.S. Army Corps of Engineers, Nashville District, Deputy District Engineer.

Mr. Stephen R. Fritz, U.S. Army Corps of Engineers, Pittsburgh District, Program Manager for Mega Projects.

Mr. Brad Inman, U.S. Army Corps of Engineers, New Orleans District, Chief of Projects Branch.

There were eight public comments made during the public comment period of the meeting; there were six written public comments submitted for the record prior to the meeting. Public comments were provided by: Heather Stebbings for the Pacific Northwest Waterways Association (PNWA); Chris Rasmussen for the Port of Clarkston; Leslie Druffel for The McGregor Group; David Doeringsfeld for the Port of Lewiston; Michelle Hennings for the Washington Association of Wheat Growers; Steve Shaver for Shaver Transportation Company; Kristin Meira for American Cruise Lines; and Jennifer Riddle for Tidewater Barge Line.

## PROCEEDINGS

MR. MARK POINTON: Good morning. Welcome to Walla Walla, the great Pacific Northwest. My name is Mark Pointon. I am the Designated Federal Officer (DFO) for the Inland Waterways Users Board. I'd like to welcome you to the 97<sup>th</sup> Meeting of the Users Board here in steamy Walla Walla. I believe there's going to be a heat advisory for the rest of the week. So, yeah, steamy isn't the right the word, is it? It's a dry heat. That's what they say, right?

We haven't been here in approximately eight years. We came out here in August of 2014. But we actually have had a few meetings in Walla Walla over the years. Obviously, the Snake River and the locks and dams on the Snake River are important lock and dam assets.

Before we begin the meeting, I'm obliged to read for the record that the 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 the modernization of the inland waterways of the United States.

The Board is subject to the rules and regulations of the Federal Advisory Committee Act of 1972, as amended.

This is a Sunshine in the Government Act meeting, and, as such, it's open to the public, and we appear to have a pretty good group today.

I'm going to put in an admin plug here. Anybody who is in the meeting that hasn't filled out one of the registration forms in the front, can you please do that so that we can track who is here at the meeting?

We're also going to get the virtual attendance of the meeting, the participants. We have that recorded already. So, thank you.

The U.S. Army Corps of Engineers is the sponsor of the Board and provides for the executive director, who is Major General Butch Graham, myself as the DFO, and for all the normal activities of the Board.

We currently have six requests to make public comments. There's a period at the end of the meeting where we'll call on the public commenters, so I'll go ahead and do that when we get toward that point of the agenda, towards the end of the meeting.

The proceedings are being recorded, and we'll have a record of the meeting available after the meeting. I understand that a court reporter is recording this meeting virtually, so there might be a little wrinkle there as we go through that process. It's a little bit different than what we've done in the past.

Other than that, I'd like to open it up to Major General Butch Graham, who is the Deputy Commanding General for Civil and Emergency Operations for the Corps, for his welcoming remarks.

GENERAL BUTCH GRAHAM: Mark, thanks. I'd like to thank you and the team for putting this together, and thanks to all the Board members, Corps members, and the public for joining us here today.

Just two points we want to get out of this meeting here today, and the two points are partnerships and transparency.

And the partnerships are between government and industry on how we're managing together the inland marine transportation system, and the transparency aspects of that are just that, is that we understand each other. General Spellmon (55<sup>th</sup> Chief of Engineers) has been very clear in his guidance to me and the Corps team on what he expects on both of those. And in partnerships you get kind of a vote, but you get a fair share of the vote. And that's what we want to lay out for you today, and to do that completely transparent.

As we've talked to many of the Board members about this morning, when Mark gets down through, and David, through some of the budget numbers, you're going to see blanks there. You say, well, that's not being very transparent, if there's no number sitting in there.

The issue is, is I don't have a good number for you yet. And when we bring in some of the district folks up here, we'll kind of lay that out. But as we generate good numbers, we do want to be transparent with you and get those to you.

So let me kind of recap that. We know we're in an inflationary period. Your businesses are all certainly understanding that. We have a process to update our cost estimates. When we're in construction, our regulations say we've got to keep those cost estimates updated every year. And when a project has been authorized, but we haven't yet started constructing of it, we have to keep those estimates current as of every two years. So that's our commitment to you.

And as we go through our process, and that goes through this what we call a change report, there's a change to how long it's going to take, there's a change to how much it's going to cost, we go through a very deliberative process to make sure there's nothing we can do to try to get it back onto what we initially said. As we go through that process, then we'll come out of that with updated estimates on how long it's going to take and how much it's going to cost, and we will get that to you in real time, and I'd be happy to take any of your thoughts on that.

So, Mark, those are my opening comments. Thanks.

MR. POINTON: Thank you, sir.

Before I call on the Walla Walla District Commander, I'm going to make a couple of admin remarks. Oddly enough, to speak on the mic, you press the red button. So red is hot. It's not green, it's red. So, when you want to speak, go ahead and turn your mic's on.

Please identify yourself and your affiliation.

We will be running the presentations centrally, so presenters will be up at the standing mic, and we'll go ahead and advance those slides as we go through it.

Now I'd like to call on Lieutenant Colonel ShaiLin KingSlack to give some welcoming remarks. I hope I did not butcher your name, ma'am.

LIEUTENANT COLONEL SHAILIN KINGSLACK: No, you didn't.

Hey, everyone, I'm Colonel ShaiLin KingSlack, the Walla Walla Commander for the Corps district here in Washington. I want to welcome all of you to lovely Walla Walla. It's an interesting town.

You know, it is kind of warm out there, but it's not unbearable. I hope you enjoy your time out here.

If you do have any questions about Walla Walla, the district office is just around the block. Not that far away. We welcome you if you just want to come in and say hi. I also have my Chief of Operations here, Paul Ocker. So, if you have any questions of me, as the commander, or my staff, feel free to come over and ask me or him.

Thank you.

MR. POINTON: Thank you, ma'am. Before we move on to Spencer's remarks as the chairman, I'd like to call on the federal observers to go ahead and give us their remarks.

Bill, as a long-time participant, I'd like to ask you to go first, sir.

MR. WILLIAM PAAPE: Thanks, Mark. Bill Paape from the Maritime Administration. Thank you. And I'd like to share newly appointed Maritime Administrator Ann Phillips' input to the Board. She looks forward to participating in a future meeting, and I will be reporting back to her about the Users Board.

I'd like to take a moment also to introduce Travis Black, our Regional Gateway Director. Travis, will you stand up?

Travis is the Inland Waterways Gateway Director and is our agency representative for the Columbia-Snake, and he is located out of the St. Louis office.

Also, Catherine Simmons, who is our Gateway Director for the Pacific Northwest and Alaska, is with us today, and she is based out of Seattle.

After almost two decades of diligent collaboration, I want to congratulate the Coast Guard and all those that were involved in making the Towing Vessel Certification a reality, including the vessel operators present today and AWO (American Waterways Operators, Inc.). Well done.

On July 21<sup>st</sup>, Secretary Buttigieg announced the Maritime Administration's (MARAD) small shipyard grant awards of \$19.6 million to 24 small shipyards in 19 states through the Small Shipyard Grant Program.

Additionally, on August 10<sup>th</sup>, Secretary Buttigieg awarded more than \$2.2 billion from the Rebuilding American Infrastructure and Sustainability and Equity, or RAISE program, to help urban and rural communities move forward on projects that modernize roads, bridges, transit, rail, ports, and intermodal transportation. Of those, over a dozen of the projects are in nine states and two territories were either port-related or impacted the MTS (Marine Transportation System).

Thank you again for the opportunity to provide an update, and I look forward to today's meeting.

MR. POINTON: Thank you, Bill. Appreciate it. Glad you're here and I'm glad you brought some of your colleagues that wouldn't typically be coming to a Users Board meeting. So glad to have them here.

Heather, I'm going to turn to you next. Heather is the representative of the federal observer for the NOAA (National Oceanic and Atmospheric Administration).

MS. HEATHER GILBERT: Thanks, Mark. Good morning General Graham, Chairman Murphy, and members of the Board. It's good to be back at the IWUB meeting and being present with you all.

For the record, my name is Heather Gilbert. I'm with the National Oceanic and Atmospheric Administration (NOAA), where Admiral Ben Evans, as the Director of the Office of Coast Survey and a member of the Mississippi River Commission, sends his greetings and regrets that he is unable to attend today and does look forward to hopefully being able to make a meeting in the future.

Today, I want to take a moment to highlight the work of NOAA's Northwest River Forecast Center located in Portland, Oregon, where they provide the river and water resource forecast in support of the National Weather Service mission of protecting life and property and enhancing the national economy. This forecast domain includes approximately 400 locations throughout the Columbia River Basin and coastal drainages of Oregon and Washington. Their forecasts serve many NOAA partners and their needs, including public safety, navigation, water management, hydropower generation, and recreation.

Additionally, this NWRFC office has many internal and external partnerships that are integral to the forecast process. For instance, the NOAA National Ocean Service gauges provide observations at forecast locations in the lower Columbia, and the U.S. Army Corps of Engineers

uses the NWRFC reservoir inflow forecasts to develop and coordinate short and long-term discharge regulations for their projects.

And these forecasts are critical for the international shipping community and for the Columbia River pilots charged with navigating large vessels from the Pacific Ocean to inland ports.

And speaking of navigation, NOAA's Navigation Response Team, at the request of the Columbia River Inter-Tribal Fish Commission and the Yakima Nation is beginning a bank-to-bank survey of the Columbia River and its tributary waters in Zone 6 of the Columbia River Basin. This is to investigate areas of sediment buildup. Zone 6 is a 147-mile stretch of the Columbia River from the Bonneville to the McNary dams and is an exclusive treaty Indian commercial fishing area. This information will be used to identify fish habitats, monitor shoaling and sedimentation, and model water flow through the tributary rivers. This is a collaborative project that will also allow the commission to learn more about shallow water surveying, test out survey technology for continuing habitat monitoring. This area is also in need of new hydrographic surveys to be updated on the NOAA nautical charts.

This leads me to the transition, NOAA's transition to the Electronic Navigational Charts, where we are on track to complete cancellation of all traditional NOAA paper charts and related raster products by January 2025. As I last updated the Board in April, NOAA has canceled 101 more charts for a total of 167, with another 150 charts now in last edition status. This leaves 690 charts that are becoming last edition at a rate of about 30 charts per month. Of those charts to be canceled, this includes charts of the Columbia and Snake River. However, these charts have not been scheduled to become last editions, but they could be canceled as soon as April 2023 or as late as November of 2024.

And I just want to give a quick update on our PORTS, our NOAA Physical Oceanographic Real-Time System, and make you all aware that in the lower Columbia River, there's a new water level station that will be installed at the Port of Kalama as part of NOAA's Lower Columbia River PORTS. This install is expected to be around the late spring of 2023.

Additionally, in the Gulf Intracoastal Waterway, we have a new side looking current meter, just installed at the Surfside Bridge above Freeport Harbor, Texas. It will be live in late September.

And there's a new current meter at Light 19 at the intersection with the Matagorda Ship Channel. This is part of NOAA's Matagorda Bay PORTS.

In the Atlantic Intracoastal Waterway in southeastern Georgia, real time currents information for NOAA's Kings Bay PORTS is available along the west side of the Cumberland Island.

And just a quick last anecdote. Rear Admiral Evans, as I said, serves as a member of the Mississippi River Commission, with many colleagues from the Corps, academia, and the private sector. They recently completed their trip in the Mekong River Basin through the Sister Rivers Partnership. The Mekong River Commission has a similar mission, with the added challenge of coordinating across four nations (Cambodia, Laos, Thailand, and Vietnam).

You know, he kind of wanted to mention how he looks at both these commissions, how they face the same challenge of guiding the management of the respective waterways through challenges including increasing storm intensity, sea level rise, subsidence, particularly in the coastal zone. This exchange with international partners facilitates sharing best practices, which benefits both commissions.

So, thank you, General, Chairman Murphy and the Board for allowing me to provide these remarks today.

MR. POINTON: Thank you, Heather.

I'm going to call on the U.S. Department of Agriculture next. We've got Mr. Richard Henderson here.

He's taking Matt Chang's place, so be gentle with him. This is his first time. So, Richard?

MR. RICHARD HENDERSON: Thank you. Chairman Murphy, General Graham, Board members and other attendees, for the record, my name is Richard Henderson. It's an honor to be here today on behalf of the USDA (U.S. Department of Agriculture) Agricultural Marketing Service (AMS).

The USDA continues to acknowledge the importance of initiating the Inland Waterways infrastructure construction and rehab projects for the ease of barge transportation, to facilitate export and domestic shipments of agricultural and related products.

Agricultural trade is important to the U.S. economy. In 2021, agricultural exports accounted for over 20 percent of total agricultural production, exporting more than \$177 billion. In 2021, barges moved 36.8 million tons of grain on the Mississippi River to New Orleans, representing 38 percent of all grain export, valued at approximately \$20 billion.

The USDA continues to monitor the challenges with the U.S. supply chain. USDA will continue to keep track of construction and rehabilitation efforts along the Mississippi River and the Columbia-Snake River, as well as the outcome of the Lower Snake River Dams Benefit Replacement Report due out this summer.

The USDA is currently collaborating with the University of Arkansas to create interactive flow maps that use the Army Corps of Engineers Lock Performance Monitoring System (LPMS) and the waterborne commerce statistics data to provide visualization tools to analyze U.S. grain barge movements along the U.S. inland waterways system.

The USDA is also collaborating with Ohio State University to develop operational framework to evaluate the economic consequences of an inland waterways system failure and resilience options that can help agricultural transportation systems and related businesses in the supply chain to recover more rapidly from disruptions, specifically looking at the economic consequences of unexpected failures of Mississippi Lock 25 and the Illinois Waterway LaGrange Lock.

Both of these studies are expected to be finished by the end of the year.

Thank you for the opportunity to participate in today's meeting.

MR. POINTON: Thank you, Richard. Glad to have you. Hopefully you'll be a regular as we move forward.

Last but not least, I'd like to call on Ms. Stacey Brown from the Office of the Assistant Secretary for Civil Works. She's here for the Honorable Michael Connor. Stacey?

MS. STACEY BROWN: Good morning. Pleased to be here today representing Michael Connor, the Assistant Secretary of the Army for Civil Works. As Mark said, my name is Stacey Brown, and I'm the Deputy Assistant Secretary for Management and Budget in the Office of the Assistant Secretary of the Army for Civil Works, and I would say I've been in my current position I guess about five months now, but worked for the Corps for many years, and I've always heard about the Inland Waterways Users Board, but never got the opportunity to experience it. So, I'm really happy to be here.

Secretary Connor has developed five priorities or priority areas to focus on during this Administration, and I think two of them in particular are very germane to this group, one being upgrading the nation's waterways and ports to strengthen supply chains and economic growth, and the other one that General Graham touched on earlier, and that is, you know, strengthening communications and relationships as we solve water resources challenges.

So, looking forward to spending time with the group and getting to know folks, and I appreciate the opportunity.

MR. POINTON: Thank you, Stacey. Glad you're here. I didn't realize you had never been to one over all those years, but glad to have you. Appreciate it.

Now, moving on to our chairman, Spencer Murphy, for his opening remarks.

Spencer, I didn't mean to delay you for so long, but glad you're here, and welcome back.

CHAIRMAN SPENCER MURPHY: Thank you. Good morning.

Welcome to the Inland Waterways Users Board 97<sup>th</sup> Meeting.

I want to start by thanking the Corps leadership and the Walla Walla District in particular for hosting this meeting and setting up tomorrow's tour of lock and dam facilities here in the northwest.

Coming together for these meetings allows members of both the Board and the Corps to identify and execute the projects that are critical to strengthening America's economy.

Since our last meeting, Congress has been making significant progress on legislation to advance inland waterways projects. It is encouraging to see Congress take positive steps towards advancing our collective mission.

However, the Board is concerned with the current appropriation levels for inland waterways construction projects in the Fiscal Year (FY) 2023 Energy and Water Appropriations bill. Since the industry volunteered to raise its own fuel tax in 2014, the subsequent increased revenues deposited into the Inland Waterways Trust Fund (IWTF) have averaged just over \$115 million a year, with FY23 looking to be a record year of more than \$130 million in deposits. The Inland Waterways Trust Fund (or trust fund), when matched with General Treasury revenues, should provide at least \$330 million in Construction funding each year.

Unfortunately, as we all know, that is not the case for FY23. The Administration's budget only recommends spending \$13.75 million from the trust fund. Under-investment in the President's budget sends the wrong signal to Congress and leads to under-investment in Congressional appropriations. This year the House and Senate Appropriations bills recommend only \$31 million and \$34.52 million from the trust fund, respectfully. At a time when America's supply chain and transportation infrastructure is increasingly under strain, this under-investment gives the Board great concern.

I look forward to discussing how we can further advance the Board's mandate to advise the Corps on priorities and spending levels.

In addition to FY23 appropriations, there is some good news in that the House and Senate have both passed their versions of the Water Resources Development Act of 2022, or WRDA. We fully support the advancement of our objectives through biennial water resources bills, and we are excited to see that the Senate bill contains a provision to adjust the cost share for inland waterways construction projects from 65 percent/35 percent to 75 percent General Treasury, 25 percent Inland Waterways Trust Fund.

Under the Senate proposal and according to the annual receipts deposited into the trust fund, this provision could provide roughly \$460 million in annual construction funding to modernize our system. As both chambers negotiate the final WRDA of 2022, we remain hopeful that the final bill will include this Senate cost share language which would further advance the goals of the Capital Investment Strategy.

Finally, the current challenges surrounding project delivery and cost estimates remain the Board's top priorities. In developing changes to the Capital Investment Strategy and discussing the progress of many of the ongoing projects, I look forward to having a broader conversation about fiscal year capabilities and understanding the process by which the districts, divisions and headquarters present their fiscal year capabilities to Congress.

At our last meeting, General Graham noted that trust is gained in drops and lost in buckets. I think we're off to a great start this year adding drops to our bucket. In order to keep that process on the right track, I hope we can work on ways to increase transparency, as the General has already alluded to, about capability reporting, to allow the industry to accurately advocate full

and efficient funding for all our projects. Ultimately, our joint success requires all of us to be on the same page and using the best possible information to bring about congressional action.

This concludes my remarks and I'd like to open it up to any of the Board members who would like to make a comment.

Thank you, and I look forward to a great meeting and a successful tour.

MR. POINTON: I do not see any Board members that wish to tag team with Spencer on opening remarks. Going once, going twice.

All right. So, let's move on to the next agenda item, and that's approval of the minutes of the Board Meeting No. 96. That was sent out as a read-ahead to all of the members.

So, do I have a motion to approve the minutes from Board Meeting No. 96?

Mr. Marty Hettel so moves. Do I have a second?

Second from Jeff Webb. All in favor?

ALL MEMBERS: Aye.

Any nays? (None.)

Outstanding, the motion is passed unanimously. Thank you, gentlemen.

Moving on, next up, I guess that's me again as well. I'm going to go through a quick presentation on the status of the Inland Waterways Trust Fund. I think I'm going to move up to the podium to do this, so bear with me for a second.

All right. Let's see. I think I can manage a stand without a podium.

So, first slide, please, Steven.

So, I've updated this. We only had amounts through the end of June when I sent the read ahead materials out. The July statement from Treasury was published last week, so I went ahead and updated the numbers.

So, as you can see, the revenue is already approximately \$110 million, which is a record pace, even ahead of the pace from last year and the year before. And they are also showing transfers to the Corps of Engineers now of \$91.8 million, leaving an available balance of \$239.9 million in the trust fund.

There was approximately \$165 million of outstanding budget authority going against the trust fund, so there are still some commitments, if you will, against that \$239.9 million. Those get

obligated probably more towards the end of the fiscal year as project contracts are executed on these trust fund projects.

Jeff Webb. Yes, sir.

MR. JEFF WEBB: This is Jeff Webb. Do you know what the commitments are? Out of the \$200 million, do you know how much is committed?

MR. POINTON: Of the \$239 million still remaining, after the transfers, I do not know. I can put some pen to paper and crunch that for you in the next day or two.

MR. WEBB: If you can do that, please.

MR. POINTON: Yes, sir. That will go out to all the Board members. I would send it just to you, too, Jeff, but I think your colleagues would be interested as well.

MR. MARTIN HETTEL: I'm sorry. Marty Hettel.

MR. POINTON: Hey, Marty.

MR. HETTEL: And I was quiet in the opening comments, but I'd like to touch base on what our chairman stated. If you will go back to your previous slide, at the \$230 million, well, \$240 million rounding it up.

MR. POINTON: Yeah.

MR. HETTEL: And keeping a \$20 million balance in the trust fund, that creates about a 65/35 General Treasury/Inland Waterways Trust Fund, about a \$650 million available authority to improve our locks and dams.

As the chairman said, getting capability funding up into Congress is important. One of our main priorities at the Users Board is to spend our inputs into the trust fund on an annual basis to efficiently fund these projects so we can have a more reliable and efficient system going forward.

So, hopefully, looking forward, we can get through the whole capability number. I know that's a tricky question. But I've got some questions in some of the presentations today we'll go through, and I would like to just bring up a motion that, looking at my screen, none of these numbers were in it, and hopefully we can have those at every Board meeting with the amounts through the work plan, with what you expect to be allocated out of the trust fund, so we have an actual number to work with.

When you look at the original presentation of \$317 million, minus the \$20 million, that would have been about an \$850 million program. We don't want to go to Congress and tell them we've got this much money to spend, because we get the information from you, and I know you get it from the Treasury, and sometimes the Treasury doesn't allocate or distribute those funds.

So hopefully, going forward, at future Board meetings, we can get this broken out as you have it today.

MR. POINTON: Yes. If I understand what you're saying, Marty, I think that's doable. Whatever we have that's available to be released, for the capability of those particular projects. I think General Graham touched a little bit on that earlier today, that we can estimate, if you will, what is committed against that balance. Did I parrot what you were saying, in my simplistic terms?

MR. HETTEL: Yes, sir. And I understand getting information from Treasury, but you can also go through your work plan and look at what you think is going to be allocated for construction and reduce the balance of the trust fund number in our reports for the Users Board meeting.

So, again, my motion is to the Board that we have these numbers as you've got displayed up here with your expected distributions out of the trust fund at the Board meeting, so we don't have to have a do-out like we had last Board meeting and coming out in June. So that's the motion for the Board.

MR. POINTON: Sure. Do I have a second?

Is the comment germane to the motion?

CHAIRMAN MURPHY: Sorry. Thank you. To just explain, how currently does the Corps do this accounting? And, you know, as Marty referenced, you need information from the Treasury, but I'm curious, is there not an internal Corps mechanism to track these data so that there's maybe not an official number, but at least a forward number that we could maybe use and have it in more real time, instead of waiting on the Treasury?

MR. POINTON: I'd have to think a little harder about that, Spencer. Again, I understand that you don't want to detract from or derail the motion here, but you're crossing boundaries of the jurisdiction between what Treasury is required to produce and what the Corps of Engineers produces, so I'm going to have to meld those two together. But I think it's doable.

And I think General Graham would like to make a remark there. How can we help you out here?

GENERAL GRAHAM: Internally to the Corps, we're working on an initiative to do what the chairman and Mr. Hettel have stated, which is to put more detailed schedules together on how we expect our construction projects to play out, and to be able to pull those reports in an automated way, which you would expect in this day and age we should be able to do.

You say, well, why don't you do that already? Well, the reason is, because we only finally got funds for FY22 halfway through this year, and so for the project managers who are actually putting all this work together, the lack of predictable funding means that in the out years, it's unknown, exactly how the project can proceed forward, like how much money are you going to get that year, how much can you put on contract to build this piece of it?

So, what we've asked them to do is to assume efficient funding and to project out through the lifecycle of the project. Now, poor Steve Fritz is back there with the two hairs he has left, and you just heard a yelp because he just yanked the last two out, and the reason for that is because he knows that, well then, I just made his job three times harder, because when I say that year appropriations just happen, he's got to evolve his schedules. That's okay, that's what we want them to do.

And we're going to resource them to be able to do that.

So that was a very long soliloquy, Marty, to say that what you're asking for we should be able to deliver for you, and to be able to give it to you in a real-time snapshot. That's our goal.

MR. HETTEL: And, General, with all due respect, you know, looking at our previous Users Board meeting, showed a balance of \$280 million, plus the existing budget authority then reduced it to down to \$165 million, almost, when you started looking at what your budget authority was, and now we're at \$317 million today.

So being an eight-year member of this Board -- and, Mark, this is no disrespect towards you -- I went back and looked at some of our previous meetings, and very seldom does this come up without any deductions. Just taking it from the Treasury doesn't tell us what we need, I guess is my point.

So, we need your expertise on where you think these trust fund dollars are going to be spent, through appropriations and/or budget authority or whatever the case may be, because having these numbers go from \$280 million to \$164 million to \$317 million is just really confusing.

MR. POINTON: Understood.

MR. HETTEL: Again, no disrespect.

MR. POINTON: None taken, Marty. I'm glad you're looking at the numbers, because it's a fact-check, if you will, of what we're reporting, and I understand the challenge between what Treasury provides, because it's not exactly what the Corps tracks as well.

So, again, I go back to where I think it can be a meld between what the Corps of Engineers does and the numbers that Treasury actually publishes to be able to provide what you're asking for.

MR. HETTEL: And I appreciate you going through this last night and bringing these more accurate numbers up to the Board. If you would be so kind to forward this to the Board, I would appreciate it.

MR. POINTON: Will do. I believe we already posted those to the website, but we will forward the updated numbers to you all.

MR. HETTEL: All right. Thank you.

And so back to the motion that we get these numbers distributed to us in this format going forward, there was a motion and a second. If there's no other comments, everyone in favor, say aye.

ALL MEMBERS: Aye.

MR. HETTEL: Those opposed, and on the line?

MR. HETTEL: Do we have a quorum?

MR. POINTON: Yeah.

MR. HETTEL: Okay. Motion passes. Thank you, sir.

MR. POINTON: Thanks, Marty. I appreciate you taking over my responsibilities there. Makes my job easy, Marty. Thank you.

GENERAL GRAHAM: Give him a gavel.

MR. POINTON: So, before I was sidetracked by Marty's motion, I think this is a good news slide, if you look at the FY22, that we've already exceeded \$110 million in revenue through July, for the trust fund, which is on a record pace.

I believe I pushed out some numbers to you all that we think we're going to exceed \$130 million of revenue into the trust fund, and I think this actually validates that projection that we did for you from the last Users Board meeting.

Next, this just shows the last three months, May, June, and July. Again, the same numbers. As you can see, each of the last three months have been at a pace ahead of any of the previous five fiscal years for revenue. So, again, that bodes very well, because I know July, August and September are big months for transportation, and we always see a big spike in that last quarter of the fiscal year for revenue, so I think that bodes very well for what we think is going to be in the trust fund in the near future.

CHAIRMAN MURPHY: Mark, Spencer Murphy. Just a quick comment on this slide. I mean, if you sort of toss out 2020 and probably half of 2021 due to COVID impacts, I think the trend is really clear, that revenues are increasing, and that's not a one-year phenomenon, that's a trend.

So, without rehashing the same conversation, I just want to encourage us to be mindful of that, and as we communicate to Congress, to make sure that Congress is aware that this is not a spike, this is not something that they can ignore, that the trend is our friend here, and we need to be budgeting in and spending based on that basis.

MR. POINTON: Yes, that's actually a very good point on FY20, which we saw about a \$3 or \$4 million decrease that was COVID-related, and we saw very little of it in FY21, and that was still a record year in FY21, and there was some lag in the effects of COVID on the industry.

So, yeah, I think that's a huge point, Spencer, that even with COVID, we are still seeing record numbers the last couple of fiscal years.

For FY20. Exactly. We also had a couple of significant events as well as COVID.

These are just the allocations that we have. These are just those that are being drawn from the trust fund.

That does not include the IIJA (Infrastructure Investment and Jobs Act) (also referred to as the Bipartisan Investment Law or BIL) projects that were funded, the funding amounts for those. And I don't need to get into any of these. We have presentations on all these projects coming up later on in the agenda.

I think that's all I have on the trust fund. Do we have any other questions?

GENERAL GRAHAM: So just some simple math. If I heard what the chairman said, right now it's 65/35. Total Construction, General (CG) money to put all of that trust fund contributions in the ground is about \$330 million per year? Is that what you said, Spencer? That's what I wrote down.

CHAIRMAN MURPHY: Yes.

GENERAL GRAHAM: Okay. And at 75%/25%, if that comes through in WRDA '22, that would bring that up to \$460 million total CG?

CHAIRMAN MURPHY: Yes.

GENERAL GRAHAM: So those are good numbers for us to sink our teeth into. And Ms. Brown, do you have any comments on that?

MS. BROWN: No. I think that's a good news story, because I'm sure we can put all of that funding to work.

GENERAL GRAHAM: Some of us were talking this morning, and what's missing from that equation is O&M (Operation and Maintenance), and talking with Marty earlier, I know that the two big river divisions, LRD and MVD, had a meeting. When is the next one, Marty?

MR. HETTEL: I need to check.

GENERAL GRAHAM: Okay. Because that's the other big half of this, is to use that money. I understand it's not from the trust fund, but to use that money well to provide a better waterways system. As Ms. Brown indicated, the priorities from the current Administration is a reliable piece of the transportation system, a critical component of America's supply chain. So, \$460 million, as we get into the Capital Investment Strategy and the various scenarios, so somewhere

between \$330 and \$460 million is what we want to kind of dial in. And Mark, that's what you're going to go to pretty soon, right? Okay.

MR. POINTON: So, these are just the projects that we'll be covering later on today.

Actually, I'm next up on the navigation funding as well.

So, this is our standard timeline. We are executing, we are defending, and we are developing at any given time. So, this shows the FY21 program execution. So here we are, we got the timeline right here. So FY22. FY21 is done. We're actually finishing up execution on FY22. We've got the FY23 defense, if you will, and we're developing FY24.

I believe that's with the Administration now. And I can't really see it here, but I know these are the DRSAA, the Disaster Relief Supplemental Appropriations Act funding, and the IJA funding. These are the points here. So, if you look at this, we are really doing five different cycles, if you will, in this whole budgeting and funding process for the Corps of Engineers. That's all good news, that we've gotten those additional funding mechanisms through DRSAA and IJA.

GENERAL GRAHAM: Any questions from the Board on those?

CHAIRMAN MURPHY: This is Spencer Murphy. Quick question about IJA. At the last Board meeting, it was reported that there was \$115 million left over; not quite sure where that might go. Do we have an answer yet as to where that money has been allocated?

MS. BROWN: Yeah, not yet. I think that's what General Graham was alluding to. So, within the Administration, probably expect to see more IJA funds allocated in the September time frame, and then probably maybe another addendum before the end of the calendar year.

MR. POINTON: And Spencer, the amount is \$113.5 million is what we've got left from the IJA, from the funding for inland, the \$2.5 billion for the inland.

CHAIRMAN MURPHY: Thank you. Correct. And then to follow on that, in addition to the \$2.5 billion that was dedicated to inland, there was an additional \$1.5 billion for navigation in general. Our view would be that inland is navigation and qualifies for those funds as well. So, I just wanted to put that marker down and encourage the Administration to, don't ignore inland. If you have funds available on the navigation pot of money that can be spent on the inland side, we should do so.

MR. POINTON: Yeah, most of those resources have been allocated on the coastal side. There's \$214.2 million left of that additional pot for general navigation, Spencer.

CHAIRMAN MURPHY: Thank you.

MR. POINTON: And I do not believe there's any prohibition about using it for the inland.

CHAIRMAN MURPHY: Thank you. Yes.

MR. POINTON: Actually, the numbers on the inland are on the slide. The ones for the coastal are not, they are on a future slide. So, I was being a little nimble there. Thanks for the compliment, sir.

So, this is just the breakdown between the inland and the coastal. And it's hard to see some of the colors here, but it takes you through the conference amount, the funding pot, the one percent, which is resources that we get in the agency to address emergency activities, one percent emergency. Supplemental, IJA, and then the President's budget at the end, that would be your "Pres Bud."

So, as you look at those slides between the inland and the coastal, the makeup of those different elements are slightly different. The coastal appears to be benefiting more, if you will, from this process. There are reasons for that. On the inland side, you have the Inland Waterways Trust Fund, on the coastal side you have the Harbor Maintenance Trust Fund, which is a considerably larger balance, considerably larger revenue stream, and the demand for those funds for dredging and Operation and Maintenance on the coastal side are a little bit different than on the inland side.

Next, these are for Investigations. Again, you can follow your way. I mean, I don't have the greatest eyesight, but I can't read those.

GENERAL GRAHAM: Hey, Mark, back up one just a minute, because as we're staring at this, this is a very helpful chart. I'm just staring at FY22, and you look at how much bigger it is. Mark, I'm going to ask for your calibrated eyeball here: do you think the FY22 bar is from, say, we've got in FY19, how much bigger?

MR. POINTON: I would say it's two or three times larger.

GENERAL GRAHAM: Okay. We'll go with four.

MR. POINTON: Okay. Absolutely, that works for me.

GENERAL GRAHAM: I'd say, basically four years' worth of investments that we've got in FY22. And I think that helps put in perspective what the Administration has delivered here. And our commitment to the Board members, working with our federal partners, is to invest that money wisely. You know, that's a four-year bump in providing a more reliable system that the nation can count on, which is pretty remarkable.

MR. POINTON: So here we are back to the Investigations funding trends. I guess the trend I would point out, you probably can't see it very well, these are related to the funding from IJA. So, there's no anticipation of funding for Investigations for either inland or coastal for IJA there as well. This is the 2022 IJA, so all the Investigations that were included in there for navigation went to coastal. The point I'd like to make is, as you see these trends here, and then we get to the President's budget here for FY23, it's a somewhat depressed number compared to these. And you all recognize the need for these Investigations funds for the PED. A lot of the

Preconstruction, Engineering and Design (PED) get included in Investigations until those projects migrate over to the Construction phase, so I'd just like to point that out for the Investigations phase of this.

GENERAL GRAHAM: Mr. Henderson, any time that Mark says an acronym that you don't know, he owes you a cup of coffee here today.

MR. POINTON: Yeah. Just coffee? Okay. On the Construction side, you can kind of see, there's no indication for Construction funding for FY23 yet. General Graham and Stacey Brown mentioned that that's going to be a decision point coming up in the near future. I would point out, as the Board mentioned, as Spencer mentioned in his opening comments, the FY23 President's budget shows very little for Construction. That is a reflection of these huge amounts that we got in 2022 through the IJA. I think this kind of demonstrates General Graham's point as well. We're kind of bopping along here, and then here we go, we shoot way up on the inland and the coastal side for the IJA numbers.

CHAIRMAN MURPHY: Mark?

MR. POINTON: Yes, Spencer.

CHAIRMAN MURPHY: And certainly from the Board's perspective, we are thrilled to see those IJA funds come into the system, and I think that's a really important possibly generational change for the system, but we also just want to make sure that it's understood that we still have another pot of money that we need to be paying out of in the trust fund, because we have had a point in our industry's history where the trust fund grew to several million dollars, and that's not in anybody's interest to have a ballooning balance in the trust fund. Regardless of whether or not we have funds coming from another source, we want to make sure that trust fund is being efficiently spent.

MR. POINTON: Yes.

CHAIRMAN MURPHY: We want to keep you really, really busy.

GENERAL GRAHAM: We appreciate that.

MR. POINTON: I'm going to pull another number out that the General may or may not compliment me on. I believe that the balance in the trust fund peaked at about \$435 million going back more than several years.

So here, this is the Operation and Maintenance (O&M) account. So, this includes the Mississippi River and Tributaries, the MR&T account as well. Again, you can kind of see the coastal in blue here, kind of ahead for O&M. Again, that's a reflection of the Harbor Maintenance Trust Fund going to coastal dredging and coastal maintenance. It's more than just dredging, but to the coastal maintenance. Your IJA down here, and here's your FY23 President's budget.

So, again, you look at where these are through this process, and then you look at where we are here. So, there's room to elevate those numbers again in a FY23 markup for FY23 that the House and Senate are doing.

And these are some examples of what were funded out of the IJA. There's your dollar amounts.

I was nimble-flipping through, the \$113.5 million I mentioned. But, as you can see, the \$2.5 billion, we do have a little bit left to go ahead and allocate. It's pending allocation decisions of the Administration.

These are the projects, and the dollar amounts that they receive for the inland and coastal. I do not have a slide for this for the coastal side. I do for the inland program. And here's some highlights of what went for inland navigation from our funding pots in the FY22 appropriations. So, Investigations, there's your Inner Harbor Navigation Canal Lock, IHNC Lock. Here's your NESP (Mississippi River – Illinois Waterways Navigation and Ecosystem Sustainability Project), under Construction.

Investigations, Construction, and these are O&M. So, we are beginning to prosecute some of these remaining items. There's your Lower Granite, the Gulf Intracoastal Waterway, some of these remaining specific activities that wouldn't get funded in your regular and recurring Operation and Maintenance. What we're going after are those at the most risk, with the most impact, with the additional funding that we receive in those funding pots.

And, again, a little snapshot of some of the highlights from the FY23 President's budget. That's the Regulating Works on the Mississippi River, which is mostly the St. Louis area of responsibility. And since this is the President's budget, I'm sure there will be much more to report out. Hopefully, we'll have a lot more to report out at the next Board meeting on the specifics of what's going to be included in FY23.

Sir, do you have a question?

GENERAL GRAHAM: Let me just bring in Tom Smith here. Tom, anything you want to comment on the O&M side of this?

MR. THOMAS SMITH: You know, I think it's helpful that we're showing the O&M here, because the Board's focus obviously is on the IWTF proper, which is construction. And just to make a couple of points that are probably known to the Board members but aren't as clear.

So, the Harbor Maintenance Trust Fund is an O&M focused account, and in the inland waterways system, if you were to go back and look, you know, it would typically get \$700 million in O&M every year. And there was a discussion, some tension there about what we do with our major rehab reports and what we end up deciding to do in Construction and Operation and Maintenance. So, there is a discussion that does impact the trust fund as we go through these Major Rehab Evaluation Reports, and that will come up as a later discussion, because we are also being funded for a lot of those reports, and the outcome of those reports is determinative on whether something falls into a construction approach or into maintenance. So, it's important for

the Board to know that while the focus is on construction, there are impacts from some of the things that are funded that we will have to work through over the coming years, because in addition to that significant investment in construction, I think there are 13 evaluation reports ongoing, and those all have some very significant impacts to the different accounts.

MR. POINTON: Thanks, Tom. If there are no questions from the Board, we'll move on in the agenda. I believe that's the Capital Investment Strategy. David Frantz, the Inland Program Manager in the Corps Headquarters is going to give us the update on the Capital Investment Strategy.

MR. DAVID FRANTZ: Thank you, Mark. Good morning General Graham, Ms. Brown, Chairman Murphy, Board members and federal observers. Today I'll be briefing on the final draft update to the Capital Investment Strategy or CIS report, tables, and investment scenarios.

Next slide, please. Just as a reminder, the CIS report recommended reviewing and updating the appropriations on an annual basis to provide leadership with current information for decision-making. This document is an internal review and update and does not replace the requirement for a five-year update to the overall report. The next external update will be completed and submitted by 2025.

Next, Category 1, as we mentioned at the last meeting, these are projects that are currently under construction, and as previously discussed, changes from the 2020 report are highlighted in blue, and what we did based on some feedback from the last meeting is we did modify some of our footnotes to better reflect what's going on with some of these projects. I just wanted to highlight that footnote No. 1 notes that these projects were funded to completion based on the total project cost at the time of appropriations. And footnote No. 2, as General Graham mentioned earlier, we have a couple projects where the scope and the cost estimates are still under review, and as we refine those numbers, we'll get those added to the tables.

GENERAL GRAHAM: So, let me ask if you can back up one, David? So, No. 1, projects were funded to the estimated total completion costs. Some of those we're not going to be able to finish with the money that we've been given. And Ms. Brown is staring at me right now, I'm sure, because I've just made her life infinitely harder. So why is that? It's the escalatory period that we're in. The bids are coming in higher. So, what we owe the Board, again, is both updated cost estimates for footnote No. 1 and for footnote No. 2. We will go through cost change control boards on all of those with the districts, the divisions, and we will update those costs annually for everything on that chart. And we're going to do that as we get to them.

So, the Board members, when we get an updated cost estimate, let's say, for -- we'll pick on Steve Fritz -- right now, for Montgomery (Lock), we'll get those to you in real time. We're just going to email them out to you. We're going to do that, you're our partner in all this. We got to let the Administration know, we got to let Congress know, and we got to let you all know in near time -- hear about it at the same time. Okay.

And at the next Board meeting, you can grade our paper and see how we're doing on that. Ms. Brown, anything you'd like to add?

MS. BROWN: Only that, I mean, the Administration knows what's going on and the challenge that we're facing. So, yeah, it's unfortunate, because we thought we had funded things to completion, but that's what happens. So, it will be difficult, but it's certainly not unexpected.

MR. FRANTZ: Next, Category 2. Again, this lists the projects that have construction start approval but are waiting initial appropriation. And as a reminder, Brazos River Floodgates and Colorado River Locks still require new start designation. That project has been approved or authorized; it just needs a new start designation.

GENERAL GRAHAM: David, thanks for adding those footnotes, because I get lost in all this, you know, what authorization came with what, what do we need new starts for, construction new starts as opposed to Investigations new starts. So, thanks for those footnotes. It was very helpful to keep track of that.

MR. FRANTZ: Next slide, there were no changes to Category 3, which is ongoing studies from the presentation that was presented at the last Users Board meeting. And to answer one of the do-outs, I believe, Marty, you had a question, we have gotten a summary update of where all of these studies currently stand. I received it after we had put this slide deck together, but that's information that if people would like, we can show you where we are. Some of the projects are still in the planning and engineering screening phase, others have completed that phase and they're moving toward deciding on a recommendation to move forward.

MR. HETTEL: David, this is Marty. So, Mr. Smith's comment on these MRR (Major Rehabilitation) reports, I want to speak specifically to Brandon Road, Dresden Island and Starved Rock that are on this schedule for major rehab report. And I'm going to indulge you folks for a little bit here. Back in 2020, we shut down the Starved Rock and Dresden Island locks for 90 to 120 days. Starved Rock was dewatered to install four new miter gates, concrete sills and anchoring. Dresden Island was closed to install the bulkhead recess for the upcoming work in 2023. Right now, in 2022, we've got Brandon Road Lock shut down for 15 days. We've gone through many days of a 70-foot restriction at Brandon Road, only 12 hours a day, to put the bulkhead recesses in to prepare for the 2023 closures. In 2023 -- and this is all from the Rock Island website -- Brandon Road Lock and Dam will get upper miter gate installation and machinery replacement for another 120 days. Dresden Island, upper miter gate installation, valve replacement, machinery replacement, electrical system replacement, another 120-day full closure. Starved Rock Lock and Dam, miter gate machinery replacement. And it states, "Repairs being made during these closures include replacing new miter gates, miter gate machinery anchorage, installation of bubbler systems, gate sills, bulkhead recesses, concrete repair and replacement." I find it hard to figure out, why in the heck can we do a major rehab report on these three locks with all the work that you've done in 2020, and what you're going to do in 2023? What else is there to repair?

MR. POINTON: Hey, Eddie, can you take the mic so that we get it recorded for the record?

MR. EDWARD BELK: Thanks, Marty. Eddie Belk, Mississippi Valley Division. So, we have done a lot of work on those locks over the last couple of years. Got more projected. I think, though, with your question, I'll go back to Rock Island, and I don't think Chicago is involved in any of the ones you just mentioned, but I'll go back to Rock Island and validate our assumptions for those, and the degree to which we may have addressed them with the work we've done to date, because you make a great point. We've invested a lot of money in those locks over the last two or three years, and more to come, if we look at our closures. Andrew Goodall, anything you want to add to that? (Indicating he did not.)

Okay. So, we owe you some information, Mr. Hettel.

MR. HETTEL: Well, the major point, the reason why I bring that up, the 120-day closures in 2020, the closure in Brandon Road we're going through right now, and then the 120-day closures in 2023, if you get a major rehab report done that says we need to shut down Brandon Road, Dresden Island or Starved Rock for another 120 days to do major rehab, I look back at LaGrange, when we did major maintenance and major rehab together at LaGrange. Planning is such a big part of this. So, we could possibly, if these major maintenance reports come out saying we need to shut down Starved Rock for another three or four months, that would be the third time you're closing off a third of that river. We got find a way to plan better. That's my only point.

I'm being direct and to the point, but what we did at LaGrange was pretty phenomenal: Do all the major maintenance and all the major rehab at once.

MR. BELK: Yeah. I don't disagree we need to plan better, but we've also got to deal with the reality of when funding is available, and so fortunately we've had a lot of funding with BIL or IJA, and we're able to get after some of this, but I think some of this is a function of funding is available when it's available. And these locks are old. They've been around a long time. Although they still perform properly, they're still old, and so it's a mixture of those two things. But you make a great point, and so we'll look into that and come back to the Board with that analysis.

MR. HETTEL: Okay. Thank you.

CHAIRMAN MURPHY: So, this is Spencer. Just to that point, maybe, Mark, as a do-out or maybe ahead of the next Board meeting, maybe a briefing on, you know, this Category 3, particularly with focus on the rehab work, so that we can get our arms around it and provide some input, as Marty suggests, about we want to avoid closing locks in consecutive years or, if we can do three locks at the same time that are on the same stretch of a river, that makes more sense than spreading them out, et cetera. And if there's work that the Corps may think is vital, but the industry thinks, we'd rather keep that river open instead for a period, we can have that discussion as well.

MR. DAMON JUDD: Damon Judd from Marquette. I guess two quick things I wanted to add in this discussion. One, to Mr. Smith's point, I think in New Orleans, we had some discussion around, you know, what ends up on Category 4 in the next CIS plan is really important, because

that feeds Category 3 over time, and seeing 13 MRR studies on Category 3 just feels out of balance on a relative basis, at least from my lens. And then as it relates to Marty's point on some of the existing studies, and perhaps, Spencer, what you were discussing in a review, you know, General, we've heard and completely respect everything you're saying this morning. Several of your comments are talking about the workload that we are creating for you and your team. I guess one question I would ask, for that review, within the process, are there things we can do as a Board, if there are clear MRR studies here that have kind of been addressed, we can cull them off of your list faster so that perhaps resource burn, not just from a dollar standpoint, but from a human resource standpoint, that you're not tying up people on 13 studies if, intuitively, we all feel like, hey, five of these are never really going to get going? And I don't know all the rules of the road as it relates to that, but I'd flag that as perhaps a potential opportunity to streamline, you know, work here between the teams.

MR. SMITH: Tom Smith. So that's a great point, and the breadth and the depth of the number of studies, it's obvious to us as well, is not as sharply defined for the expectations of later impacts on the industry, so we have spent a lot of time talking internally about how to do it, it's not about being more abbreviated, but a more targeted, focused outcome. Because in the past, we would have one or two studies at a time. They took on a large identity, they became very comprehensive, a lot of economic analyses. So, we think we have defined, in conjunction with our divisions, a better, focused MRER (Major Rehabilitation Evaluation Report) process.

Now, to the point that you get to about whether some now can be done in an even more abbreviated way because of the investments of the past, that's something we should come talk to you about next cycle, because we have put a lot of thought into this. We think we have a better product that can be done for a shorter period of time at less cost, and we've looked, like I said, about taking a subset and making it even more clean, focused, and potentially, you know, short-tracking. I don't know that we've gotten to that point. That may be something we have to look at as well.

GENERAL GRAHAM: I just want to highlight one up here, IHNC Lock. I think Mr. Belk from New Orleans is going to brief me. Is that this Friday?

MR. BELK: It's this Friday.

GENERAL GRAHAM: So, we kind of held Colonel Murphy in command for an additional few months, it's the Eddie Belk hostage release program down there, so that he can push this to the point where we're going to make a decision on whether or not we're going to continue on IHNC, because we were on a path to nothingness for a while. I just want to compliment the Board and the industry team for doing the hard legwork that we've witnessed over the last eight months so that we don't keep repeating the same thing over and over again and ending up with the same results, which is, somebody sues us, and we're just full stop down there. From what I've heard, we certainly have support from Governor Edwards, and I believe the mayor as well. That was a recent report that crossed my desk. So, looking forward to hearing Colonel Murphy's report here on Friday, because I believe we're in a better place. Is there anything you want to say on that?

CHAIRMAN MURPHY: No, General. Just, I appreciate the comment, because, as you said, compared to where we were eight or ten months ago, we've come a long way, and I think we've made a lot of progress. I'm excited about the potential path forward. I think we've got a lot of positive momentum. A lot of work has been done on the ground by Colonel Murphy and his team, along with the industry, to reach out to local community and better explain what this project is and what it isn't, and what potential positive impacts may flow from it, instead of it being viewed as nothing but a negative. There are some very positive benefits for the community. So, I've got a lot of confidence in Colonel Murphy, and I know that he's going to give you the latest and greatest, and I look forward to the next phase of the project.

MR. FRANTZ: Again, there are no changes to Category 4. These are potential studies.

GENERAL GRAHAM: Let's back up one just for a minute. I'm just destroying your timeline here today, Mark. Could we get Joe Savage? Joe, can you come up to the mic? A lot of these are yours. Can you just kind of talk on how you view these potential studies?

MR. JOSEPH SAVAGE: Good morning, everyone. Joe Savage, Programs Director, Great Lakes and Ohio River Division. Sir, as Tom Smith indicated, I think we've got a really good process developed with Headquarters that I think streamlines the decision-making and integrates our planning economics as well as our engineering team to support the demand signal from our operators out there to inform how we might address making these future investment decisions. I know that none of these are presently funded, but we continue to evaluate these potential studies based on the facility condition assessments that our teams are performing out there. So, these were the ones highlighted. You're right, we have a good chunk here with six on this list. Any specific questions, sir, I could address?

GENERAL GRAHAM: You know, Wayne Gretzky, what makes him so great is he skates to where the puck's going to be, and so this is where the work's going to be. I think we get kind of focused on the five-meter target on what are we building right now, what's in the President's budget next year, but I really would want to get the Board's input, if you have any, on where the puck's going to be. If you're seeing this differently, you kind of see how the Capital Investment Strategy is all built, the stuff we're working on now, the studies that are funded, the MRR's that are funded. And that was a good discussion, and I look forward to the next Board meeting where we explore that topic in the detail that it deserves. But this is the one that I want to make sure we're not taking our eye off the ball. Mr. Hettel?

MR. SMITH: Can I comment on that, General Graham?

GENERAL GRAHAM: Go ahead.

MR. SMITH: So, I just wanted to add some context about this category and list of studies. This is Tom Smith again. So, I'm showing the Capital Investment Strategy in FY22 where we took six months and a lot of criteria to develop a list of potential studies, and so this is just an update. There are studies that have now moved forward because they were funded, and so this is a small subset. If you look back, a lot of the 2020 Capital Investment Strategy was focused on getting things into construction. We had a few that were under construction, and that was the effort. I

think in the 2025 effort, we'll spend a significant amount of time in Category 4. This is atypical because we're usually fighting to get things into the funded section. So, I think your point, General Graham, is where we want to go in the future. This may not be it, but because we were doing an update of the 2020 strategy, we just moved the items that were in the document that had been signed off by Mr. James and sent to Congress that were funded, we moved those to Category 3, and this is just what's left. There is not a lot of original, new thinking about, is this where we want to go in the future? They're still valid. They are all still systems that have needs. But I just want to make sure I'm clarifying for the Board that we are not, in this update, looking at the rest of the 239 locks and seeing which 10, or 15 will be in Category 4. This is an update from the 2020, and it's still valid. And I think we're going to try to do that mostly in the 2025.

MR. HETTEL: Tom, Marty Hettel here. Maybe some direction on potential studies. Bayou Sorrel. Back in the Gulf Intracoastal Canal Association meeting, Colonel Murphy put a slide up that showed when we had the flooding at Bayou Sorrel when it was closed for almost three months. At the highlight, we had 127 vessels on turn at Algiers Lock, waiting to lock, because we couldn't transit the Port Allen route. Today, with the work that's going on at Port Allen so far, the delay cost to industry is almost \$12 million. And I take this out of LPMS every day.

So, the importance of Bayou Sorrel, we call it the Port Allen alternate route. It's the primary route for us. That study is the study that needs to move forward as soon as possible. And the whole reason that study was thwarted back in 2013, because the LPMS times were not being entered correctly for the delays of the tugs at the locks. And I've got all that data for you folks. That may be some direction for you, that in my estimation -- and maybe the rest of the Board can chime in -- Bayou Sorrel is at the top of the list and extremely important to us. Thank you.

MR. FRANTZ: Next slide, is the Efficient Construction scenarios. The FY22 update included two different funding scenarios considering program variabilities. These scenarios are updates to the 2020 scenarios that incorporate recent authorization changes. The baseline scenario, Table 1, which I will show here in a minute, is similar to the 2020 baseline scenario of what can be built, with updated cost shares that have changed from 50/50 to 65 General Treasury, 35 Inland Waterways Trust Fund, and the increased trust fund revenues. And then the second scenario is a 10-year construction scenario, which is an update to the 10-year construction scenario and represents a what-if scenario to demonstrate a strategy to complete construction of all Category 1 and 2 projects in a 10-year period starting in FY25. It assumes that sufficient funding is appropriated annually for design and construction. And construction to Category 1 and Category 2 projects by 2034. Specific assumptions are, there are no limits to the General Treasury and that the trust fund is available to complete lock design and construction by 2034. USACE is not assuming any changes to cost sharing, fuel tax rate, or other necessary expenses, and for purposes of this planning framework, the internal and external resources are assumed to be available to execute the work.

We did have a third scenario, the enhanced scenario, in the 2020 report. We eliminated it for this update because there was very little difference between the baseline in the enhanced, due to the recent cost share changes that were included in our updated Tables 1 and 2.

MR. JUDD: David, can I stop you there, I guess, because with some of the potential cost share changes that are on the table, I guess my perspective would be, you know, going ahead and doing the work around the enhanced scenario here would be valuable, especially as you think about the art of the possible. We understand these aren't budgetary documents, but to be consistent with the framework we had in 2020, I think the 10-year program, in light of all the work you and your team were doing, General, is a little harder to get your arms around, but the stepped-up, enhanced version that we had in that scenario last time I think would be very additive to, you know, aligning our conversations around the art of the possible.

CHAIRMAN MURPHY: Yeah, this is Spencer. I would just like to make a comment.

That's always a dangerous assumption to make. I would just like to second what Damon said, and maybe -- I don't know if we need a motion to this effect, to add the enhanced scenario back into it, with the caveats that Damon noted that this is not meant to be a budgetary document, it's not meant to change the formulas that go into ranking, you know, the racking and stacking the projects, but simply the intent behind this is to update our thinking based on what has changed on the ground, and if we're to go the way we hoped, then this is not really a what-if, it's more of a reality or potential reality. So, I would ask that we do that work.

And then, secondly, I'm not going to let a single Board meeting go by while I'm the chairman without saying how important the CIS is to the work that we do. This is the backbone of how the Board should inform the Corps as to what our priorities are, and that we really appreciate the work that the Corps has put in with us to make this a living document, one that we all can agree to live with and live by, because otherwise we all end up fighting for our own projects and our own issues, and this is the glue that keeps us together.

So, I really appreciate all the work that went into it. I know the Corps has got a team that has been doing this work for several years, and it's much appreciated. It keeps us on track. And like I said, I'm going to say this every time we have a meeting, because I don't want us to lose the CIS as our bible. So, thank you.

GENERAL GRAHAM: Ms. Brown, are we getting out over our skis if we do that? I don't think so but let me check on learning with you.

MS. BROWN: I mean, I don't think so. I think Mr. James sent the last one to Congress, and he couldn't get it cleared through the Administration, so I would just ask that before you do that, you check in with our office. It would be Secretary Connor; he would make that determination.

GENERAL GRAHAM: So, one of the things that Mr. Belk just said when we were talking on the O&M and the major rehabilitation reports are, we want to be advantageous when these funding windows open up to provide you a more reliable system. Marty is saying, yeah, but you can drive us nuts by taking that money and not having a well-planned-out closure. So, there's a sweet spot in there somewhere, and that's probably a dynamic sweet spot, that moves. And so that will be one of the do-outs, and we're going to explore that, where that sweet spot is, and how we have the mechanism in place -- and that's probably the most important piece -- the mechanism to move that sweet spot as the funding picture solidifies.

To Mr. Murphy's point, boy, the fact that you've got that larger bar in FY22 that we showed in a previous slide, the one reason that we got that is because, exactly what you said, is that this team is unified on where its investments need to be. My XO was talking to me on the drive in here about he was reading some history -- it was a long airplane flight -- reading some history of WRDA bills coming in, and I think there was a decade when we didn't get any new authorization, and some of the reason for that is because we couldn't come together on what was important to be invested in. And for a lot of us, particularly the people behind us, who, this is their new normal, they probably don't remember when we couldn't agree on where the investments should be.

And so, Mr. Chairman, I really appreciate you continuing to highlight that point, that we are in a good spot, and it took a lot of hard, painful work to get us here, and for those of us who are stewarding that here today, we acknowledge that.

MR. FRANTZ: Moving on to key assumptions --

MR. POINTON: Hold on. I think we have a motion on the table. I think Damon Judd offered it, and I think Spencer seconded it. I'm not going to let Marty say anything here.

I believe there's a motion on the table to add an enhanced scenario to the update of the Capital Investment Strategy projects and data that's currently underway. That reflects the \$460 million or whatever the money might be after we double-check Spencer's numbers. And I'll leave that out of the motion. So, we do have a motion on the table. Do we have a vote? All in favor?

ALL MEMBERS: Aye.

MR. POINTON: Any nays?

Okay. Motion passes. All right, David, back to you.

MR. FRANTZ: Okay. Key Assumptions, moving into the scenarios again, the FY22 update is a planning tool and does not take place with the normal budgetary process. The cost is assumed to be a 65/35 split, and we are tracking the wording, the draft wording of language that may change future cost sharing to 75/25. And if that language passes, we will use that new cost share moving forward with future updates. For planning purposes, we assumed the FY22 receipts would be \$131 million, and the FY23 beginning balance would be \$165 million. It is assumed that the trust fund receipts would increase by, we used 1.5 percent each year, and the construction costs are indexed according to guidelines. And the minimum trust fund balance would be \$20 million, so the no new projects would start if it caused the balance to fall below that amount.

Now, for the grand opening if you move to the next slide, please. All right, this is the baseline scenario that we've created. And it's hard to read, so hopefully everybody has their packages in front of them. Just a couple of notes to point out. With this baseline scenario and the amount of projects that we currently have ongoing, not all of the projects would even have started by the 2042 time frame. You can see at the bottom of the table we have two projects that wouldn't start

until the outyears. The 20-year construction period cost is slightly over \$7 billion, and to complete all projects, it would be 2052, with a cost of \$9.7 billion.

And that's really all I had to say on this. Unless there are any questions, we can go to Table 2, which shows some maximized scenarios.

GENERAL GRAHAM: What happened with Olmsted? Why isn't it on there? I just feel, like, lost without Olmsted on there.

MR. FRANTZ: Olmsted? It's done.

GENERAL GRAHAM: Just checking.

MR. FRANTZ: All right. Okay. For this one, I just want to point out the maximized scenario shows the time value of money. All projects completed in a 10-year time frame with a reasonable cost of only \$7.9 billion. So, pending any questions, I have one more slide.

And basically, this just shows all the actions that the group has taken to date to do this annual internal update. And, like I say, we're down to the last two bullets in the presentation today, so once I step away from the microphone, I can put a check next to that.

Sounds like we have one or two more bits of homework to put into the report, and then we'll prepare and finalize the update tables and scenarios and route that through senior leadership for review, signature, and we'll put that in the file for 2022 update to the Capital Investment Strategy report tables and scenarios. And we already know the landscape is going to change for next year, so we're already starting a file on things to incorporate as we start on the FY23 update. Pending any questions, that concludes my presentation on the Capital Investment Strategy update.

MR. POINTON: Any other questions for David? Thank you, David.

Next on the program, we've added the value of the Snake River locks and dams. I've indicated that would be Chairman Murphy and Board Member Rob Rich, who actually is from this neck of the woods, so I will turn the podium over -- actually, it's not really a podium -- I'll turn the mic over to Spencer and Rob to go ahead and address that.

I would point out that we have a public comment period at the end of the meeting, and we do have six statements, requests for verbal comments. Those are all marked down. And there were also six statements submitted for the record that will be included as part of the minutes and part of the official record of the meeting. So, I'll turn it over to you, gentlemen.

CHAIRMAN MURPHY: Thank you, Mark. I will be brief in my comments, since I'm not from this part of the world, but a couple things I do want to highlight is, one, note the fact that we are meeting in Walla Walla for a reason, and that is to highlight the importance of this system to the overall inland waterways of the United States. Three things that I would like to point out about the Snake River dams that have been the subject of recent discussion.

Number one, tonnage is increasing, it's not decreasing. I think that's a misconception that is out there that should be debunked. The waterborne commerce data shows that in 2021 there were 4.2 million tons moved on the Snake. To replace that amount of tonnage would require over 162,000 trucks or 42,000 rail cars.

Secondly, removing dams or basically closing off the waterways to inland navigation, whether it's here or on the Illinois Waterway or anywhere in the system, that means you're moving goods off of the water and you're putting them on truck and rail.

What does that mean? Very simply, that means increased air pollution, increased CO2 emissions, increased diesel consumption. It also means increased fatalities and personal injuries. We know that moving goods by water is the most efficient and the safest means of moving goods. So, any decision that looks at removing goods from the waterways has to factor all those impacts into account. And, in particular, if you are trying to make an environmentally conscious decision on how best to move freight, in my view, the short-term answer is, you should be putting as many goods on the water as possible and removing them from truck and rail, and not the reverse.

And then, finally, the shippers that use our system, and particularly ag shippers, whether it's in the Pacific Northwest or in the upper Midwest, they rely on this inland system as the basis for them to have a competitive advantage over farmers in places like Brazil and other parts of the world. If we remove the inland waterways system as part of that supply chain, we are putting our farmers at risk, and in this part of the world, you're talking about over 1,000 farms that would be impacted by removing their critical supply chain.

So, with that, I will hand it over to Rob, who can provide some more detail, and I would want to note for the record that we do have a huge turnout for public speakers, and six written comments for the record, which in the time that I've been on the Board, I don't think we've ever had that many. I think that's a reflection of the interest and a reflection of the importance of this issue. And so, I want to make sure that those comments are heard and understood by the Board and by the Administration.

MR. ROB RICH: Chairman Murphy, thank you very much for those remarks. I'm Rob Rich, and, yes, I'm from the Northwest here, Shaver Transportation, one of the barge lines that serves this great system here. In a moment of seventh inning stretch, how many people in the room have a direct or indirect connection to the Snake River dams? Please raise your hand. I'd like the record to show that the majority of the people in the room that are not directly related to this Board, and the people who have traveled to it, have raised their hands as having a direct connection to the Snake River and its dams, and we're talking specifically about the lower four Snake River dams.

I'm going to start a little more globally, and I'm going to wick down a little bit in my remarks, and for those of you that know me, I've actually written it out, so I don't run over. So, I just wanted to share that.

General Graham, we thank you so much for getting this trip put together and getting out here. Ms. Brown, Chairman Murphy, of course, Mr. Paape, being out here, Mr. Henderson, Ms. Gilbert, a lot of travel out here to the Great Northwest, and a great opportunity for us to showcase the value of the Snake River dams, and that is the feature of this section of our meeting here today.

In doing a little research for today, in the Columbia Basin, which also encompasses some of Canada as well: there are 274 dams in the Columbia Basin, 14 on the mainstem of the Columbia, from British Columbia down to Bonneville Dam near Portland, and 27 on the Snake, with our lower four Snake River dams equipped with navigation locks, along with the four on the mainstem Columbia that extend from Portland up to the Tri-Cities here. And for those of you that are out of the area here, our 365-mile system from Portland to Lewiston-Clarkston, the terminus, through those eight navigation locks and dams, that's two Corps districts, that's the Portland District and the Walla Walla District, that work very hard, and I'll make a comment about that later, as far as how they keep our system operating.

Forty percent of all U.S. hydro produced in America comes from the Columbia Basin. I was rather surprised at that number. Forty percent of all of it produced. The great State of Washington is Number 1 in the nation in hydro production, and followed by Number 2, in Oregon, and that helps set the stage of the value of dams. Yes, we're here for navigation. That's what we're here talking about today, but these are multi-use projects, and I'm going to be drilling down on that a bit. Indeed, this is a huge system.

What is the value of this system? The value is to independent people that are here locally, regionally, and throughout the Pacific Rim that are fed, employed, and having secure jobs and lives because of this portion of the system and the security it provides. Just down the street here in Walla Walla, Northwest Grain Growers, they have four elevators on the Snake River, amongst a variety of other people. There are, I believe, 13, maybe 14 elevators on the Snake River that receive wheat. Northwest Grain Growers, talking with their manager this morning, they represent 2,200 farm families, individual farm families, that are growing wheat and feeding it directly to the river. Just at the other end of the Snake River, Pacific Northwest -- or Pacific Northwest -- I was going to say Grain and Feed, Pacific Northwest Farmers Co-Op up in the Lewiston area and central Snake, they represent over 1,500 farm families. I know we can get lost in numbers, but what I'm trying to do is personalize this for the value of this system. It isn't just the tons, it isn't just the gallons per hour of our tugs, it isn't just the crews that operate on them, we have numerous people here from the towing community here today to share, but this is a vital system to each of those families.

Further up the Snake River near Lewiston is Whitman County. Whitman County is the highest per-acre producer of wheat in America. There's a lot going on right here in this Columbia Basin, and specifically here in our Snake River system. I just kind of wanted to share that and personalize that. All of these people are dependent on these Snake River dams. It is vital to them.

If these dams weren't here, if we had a clean slate to start over with, and I made a note to myself. In today's world, if we were going to start a new system here, we would demand the highest

kilowatt output with the lowest carbonless production available for electricity. We would demand the highest miles per ton of cargo transported. We're all familiar with the Texas Transportation Institute's most recent updated numbers of trucking: 151 miles of cargo on a gallon of fuel. That is excellent. Rail, the big dog in the country, 476 miles. Inland barging, 675 miles. If your goal is to reduce carbon, to reduce our dependence on fossil fuels, to have the lowest emissions possible -- Spencer, to your comments just a few minutes ago -- you would shift it to barge. Not just because we're barge people, but because it is the most efficient way to meet climate change goals for local, regional, and federal governments. We would demand transportation that didn't need expansion to handle more volume.

I'm not going to besmirch highways and rail. They are critically important to the entirety of this system. Every bushel of wheat is moved by truck to the river. Every gallon of refined petroleum that's moved from tank farms goes out by truck. It's an integrated system where we all work together. As many of us in the room are aware, if you want to have the lowest number of injuries per thousand tons of cargo moved, if you want to have the lowest incidence of spills, you will move it by barge. Barging isn't available everywhere. It is available here on the Snake River, and it is currently in that operation and has been for just over 60 years here.

We would also demand recreation accessible to all, not just a few. And the reason I make that comment is that the way the Snake River projects, amongst other projects in our region, are set up, they are easily ADA accessible (Americans with Disabilities Act) for all people to be able to get at for a wide variety of uses. If these dams weren't here and we had a free-flowing river, it would be a nearly impossible opportunity for that segment of our population to utilize that. I know that's a little off topic, but it's an important part of what's going on in our country's discussion today.

We would demand irrigation to have our high-value crops, to help backstop some of our lower value crops and have a wider diversity of export from our area, and we would demand ever-evolving high fish passage technology that are not only cutting edge but are the envy of the world.

We would be demanding all of these things of this new system that we're going to build out here. Our Snake River dams package this entire list, plus much more. To take from an ad on TV, "plus much more," to contribute to this vital and complex system. This system has many pieces.

Our Snake River is a great part of a very large system, as I mentioned before, with 274 dams in it. So, I was just struck by, if we were just clean-slating it, having to meet all of the demands of our region and our nation's desires at this point in time, 2022, they're here, they're operating, and they're working right now. I really wanted to drive that point home. These four dams opened up the highest producing wheat areas in America starting 60 years ago and have opened those lands up to the Pacific Rim markets. We feed the people of the Pacific Rim with food that is secure and affordable.

Secure meaning that we have a very reliable system. Our region here supports many opportunities for international tours to be able to come to our area and see why our system is so secure with our inland transport. Again, taking nothing away from rail, but regardless of the

snow, regardless of the rain, even with the highest water conditions that occur on the river, we are still transporting when other types of transportation occasionally are not able to do that.

We're not talking about transporting televisions and iPhones, we're talking about transporting the third essential life support for humans behind air and water. That is a value. That is part of the value of the Snake River system.

Our markets, our towing lines, our towing companies, our growers, our suppliers for all of this region, our facilities and generations of family have all grown up in and developed around this system. This is a high-value system to all.

Our Corps operations and maintenance work is second to none out here in the incredible job that gets done maintaining not only in the Portland District, and of course Seattle (District) as well, but the Walla Walla District out here. The project managers, the district and division staff, they've all worked in unison to keep these four projects in the highest level of reliability in the region, if not the nation.

I was having a beverage yesterday evening and got to hear a great comment from a person from the Portland District that was new to the district that was handling a recent emergency outage at one of the dams. And the outage was very short, very well managed, and was up and operating in less than 24 hours. And they were surprised at how fast everything came together, and everybody worked together. That's a hallmark of the Columbia-Snake River system and is specific to the Snake River system here. These projects continue to adapt to transportation, hydropower, and fish passage opportunities to contribute to a safer, cleaner, and less congested world. Right here on the lower Snake River, right here in Walla Walla, Washington.

You will hear individually from many people that are in the audience. Many of you folks will be sharing today, some of you verbally, some of you that have already placed some incredible information into the record, they will be able to share with you specifics of not only how great this system is, but how high the value is to them individually and globally. And when I say globally, I don't mean just the earth, but globally in this region to all people here.

I want to thank you for this opportunity to share and look forward to our opportunity to learn more about the Columbia-Snake River system at this meeting. Mr. Chairman, back to you.

MR. POINTON: Thanks, Rob. Well stated. I've heard you speak on the benefits and the value of this waterway system before, so I know you're a very eloquent speaker when it comes to that, so I appreciate your comments here.

Do any Board members have any comments they'd like to add to what Spencer and Rob provided today? Seeing none, okay. Thank you.

We're going to move on. We're moving on to the next section in the agenda. So, these are what I call future or new lock construction projects. I'd like to call Mr. Steve Fritz up to address the Upper Ohio and primarily Montgomery Lock, but I think he's also going to touch a little bit on Emsworth as well. So, Steve, if you could take the podium. Excuse me, the standing mic.

MR. STEPHEN FRITZ: Thank you, Mark, General Graham, Chairman Murphy, members, observers, thanks for letting me present the projects again here for the Pittsburgh District. I really appreciate the opportunity to do that. Thank you.

So, the Upper Ohio Project is a condition-driven project. It includes the three uppermost locks on the Ohio River: Emsworth, Dashields, and Montgomery. Each of the three facilities replace the 56-foot-by-360-foot chamber with a 110-by-600-foot chamber, and that new chamber will become the new main chamber. The existing main chamber that's at each of these facilities will become the auxiliary chamber and will be considered a fail-to-fix classification. Meaning it would have to fail before we fix anything. So, if there's no questions on the scope of the project, we can move on to the next slide.

Some of the FY22 accomplishments for the project include completion of the 60 percent design for the Montgomery Lock. As part of the lock design, we engaged construction industry in June of this year. Went very well. Was represented by about 30 different companies, 70 different people. They came out and looked at the facility. It was comprised of a one-day site visit and then a separate visit individually with the contractors to kind of get their inputs to the construction methodologies that we're looking at, as well as the construction sequencing, to pull in their knowledge to see what we can learn from them and help influence our design to make it more efficient for them as the builders to build it. The whole goal of that was to get their input and to get them excited about this job that's coming up here for the main Montgomery Lock.

With the secant pile contract, that's the bottom right-hand corner. If I can get the pointer working here. With the pointer, the bottom right-hand corner, that's the secant pile contract. We awarded that last year. They physically started construction in April, May of this year, and they are in full construction mode right now, full production for the building of the secant pile wall. And that wall is really to support the excavation for the new lock.

So, this is an advance contract for the main lock contract, and it's kind of adjacent to the dam. Like, it goes downstream adjacent to the one lock wall, but it goes downstream from the dam and it supports the dam itself, so it doesn't fail during construction of the lock.

Next, we're continuing with the Montgomery Lock design. We're still on track for an award for that in the spring of 2024. The design of the Montgomery site development contract will be ready to put on the street here in the next month or so. We're working through a couple real estate challenges right now, but we expect we can get through those. As mentioned before, the secant pile contract, that's in full-bore construction right now, and we expect they're going to wrap that up by the end of this calendar year. We're going to begin -- so we got a little bit of money for Emsworth. We're going to begin some geotechnical investigations, some in-river drilling, so we understand the geotechnical parameters there. We're going to start on the physical modeling for that down at our ERDC (Engineer Research and Development Center) facility. Also going to start on real estate acquisition. Everything that we build anymore is in a highly industrialized area, so we are going to take a lot of time to look at this real estate to make sure that it's clean so that we're not taking on any liabilities from past performance on those particular sites. If there's no questions on the work that we have ongoing, we can move to the next slide.

This is the cost/funding table. It shows that we roughly received about \$900 million of appropriations for the Upper Ohio Project. Of that, we've only been allocated about \$73 million. Eighteen million dollars of that came in PED, \$35 million of that came in the Construction account and Inland Waterways Trust Fund (IWTF), and we've received about \$20 million in IJA funds. That's the Infrastructure and Jobs Act funds.

Marty, did you have a question? You look like you were going to ask a question.

MR. HETTEL: Well, Steve, thank you for acknowledging what I'm about to ask of the Board in another motion and what we discussed this morning. Having the ability to look at these projects individually versus the authorization is important to us, to the Board, and then I appreciate this slide showing a cost/funding overview of the entire authorization. We really need to break it down by lock -- Emsworth, Dashields, Montgomery -- and not just in the Pittsburgh District, but in MVD, Mississippi Valley Division, with the NESP authorization, seven locks, all of this. It would give us a better opportunity to know where our trust fund dollars are going and how they're being spent on each facility.

So, bear with me here Board members. This is my motion. What we'd like to see moving forward at the Inland Waterways Users Board is to supply a slide with the following information on each project, not the authorization, but each project within the authorization. Of course, the slide would be titled the same scenario Steve has here, Cost/Funding Overview, Total & Remaining Cost. Within this slide, we should see the following information: Allocations through 2018 to include ARRA (American Recovery and Reinvestment Act) funding, IJA funding, Construction, General, Inland Waterways Trust Fund, and with total allocations, and then see that for FY19, 20, 21 and 22, and of course as the years move forward, FY23 and beyond. We'd also like to see the remaining TPC balance, Total Project Cost balance, arranged -- balance change from the last Inland Waterways Users Board meeting. And you'll see that -- you have it right here on your slide, Steve, efficient funding to completion, estimated operation date, and estimated completion date.

Now, I know those last two are not feasible until you got a contractor on site building the lock and dam, but you can give that to us on the Lower Mon project. So, we'd like to see that. And this is not only pertaining to the three locks on the Upper Ohio Nav Study, it's pertaining to every project that the trust fund supports, whether it's the Three Rivers project, the MKARNS -- I don't think the trust fund is involved in MKARNS -- but Kentucky, Chick, all of them. So that motion is a long one, Mr. Pointon ~~Wayne~~, so I do have it typed out for you.

MR. POINTON ~~WAYNE~~: I was writing pretty fast, but I didn't get it all.

MR. HETTEL: So that's my motion to the Board, is, let's see this on an individual project and not an authorization project.

Mr. POINTON: Are there any seconds to that motion?

UNIDENTIFIED MEMBER: Second.

MR. HETTEL: Any comments?

MR. FRITZ: So if I can just add something to that. I understand exactly what it is you're looking for, and when the project does get money, when it's appropriated yearly by Congress or through IJA, however the money comes to us, it doesn't specifically identify what it's for. Now, we have the budget requests that we put in for these things. You know, every year we do the budget, and we specifically identify features of work that we want to accomplish with that budget request, and when we get those funds, they go into separate accounts for Emsworth, Dashields and Montgomery, because we need to track that from an accountability standpoint from assets. We need to know how much goes in there. So, I think it's possible to do that. The mechanics of how we guarantee that money we received for the project goes to Emsworth, that's the only hesitation I would have, just to make sure that we understand exactly what that money came for when it's appropriated.

MR. HETTEL: As an example, the \$77 million that you got in the IJA for Emsworth. You're telling us part of that may be used for Dashields?

MR. FRITZ: No, I'm not. I'm saying, it's very clear from that that it was for Emsworth. It's very clear that the \$857 million was for Montgomery. But when we get an appropriation and, say, we ask for \$20 million, and we said it was for work at Montgomery and Emsworth. It might not be broken down in the appropriation how it comes to us, because we may not get exactly what we ask for. So, then we have to do some bookwork to figure out which account we're going to put that in. So, it's an accounting piece at that point.

GENERAL GRAHAM: It can be done.

MR. HETTEL: All the more reason why we'd like to see what's being spent on each lock. If you get \$20 million and you need to break that up between, say \$6 million for Dashields, \$6 million for Emsworth and \$12 million for Montgomery, that is your job to show us where our trust fund dollars are going, is all we're asking.

MR. FRITZ: I understand. Okay. Sorry. Back to your motion.

MR. HETTEL: All right. That's all I had on that motion. And all those in favor, say aye.

ALL MEMBERS: Aye.

MR. HETTEL: No's?

MR. POINTON: So, Marty's motion passes unanimously.

MR. HETTEL: And that's my last word as far as I know.

MR. POINTON: All right. For the record, Marty says it's his last motion today, so I'm going to hold him to it. So, if he has another one, I guess I'll have to process it for you.

MR. FRITZ: All right, Steve, we can move to the next slide. Thanks. So, there's a lot on this slide here, but really the gist of this slide is to show the Board that, over time, our costs change for different reasons. We're asked to assemble our costs for different reasons, you know, for the authorization. What happens if you get this amount of money this year or this amount of money this year? The IJA, for instance, is a very good example of that. We were asked in, I think, July of 2021, what's it going to cost us to get the project done? And we said it was going to be 3.2 -- or \$2.3 billion. We said, we can get the whole project done for \$2.3 billion. Well, that made some certain assumptions, and those assumptions may not hold all the time.

So those assumptions were that we would finish the design for Montgomery, and we would start immediately on the design for Emsworth and Dashields concurrently, and then we would award those at the same time. So, all three facilities would be constructed concurrently, but a little bit staggered. So, a lot goes into the assumptions for these cost estimates. So, when you look at how they evolve over time, it's not always that we're comparing apples to apples. And I just want you to be aware of that as we move on. But if there's any questions on the cost estimates that are presented here, I'd be happy to try to work you through those. Yes, Marty.

MR. HETTEL: Steve, not so much on the cost estimates here, but I went back to our meeting in D.C. when we went through the value engineering study, and within that presentation, it says \$1.28 billion cost avoidance, and the two biggest ones were lock wall construction, saving costs by using in-the-wet method -- I believe you're going to do that -- and then the other one was delete the floor slab, eliminate concrete lock floors, using gravel. Are you still planning on those two?

MR. FRITZ: Some of the lock is going to be. The middle wall is going to be in-the-wet construction, but we are going to have to build a cofferbox or cofferdam around the rest of it.

MR. HETTEL: Okay.

MR. FRITZ: So not all of those value engineering things that we looked at back in 2018, not all of those came to fruition, but we're still evaluating some of those. But I think that's the hazard with a value engineering study so early in a design process, is that a lot of people have a lot of good ideas, but you got to bring them to fruition, and the on-site conditions have to dictate: Is that possible or isn't it possible?

MR. HETTEL: Are you still looking at deleting the floor slab, cement --

MR. FRITZ: I'll have to get back to you on that. I don't know exactly if the floor slab is in there or not.

MR. HETTEL: Okay. All right. And then on this slide, explain to me IJA 22 index.

MR. FRITZ: So, the 22 index, we took the 2021 IJA number that we provided for the Jobs Act initially, and we expanded that number to include current inflation indices and expected inflation. So that's a number that we put together ourselves in Pittsburgh District, because we

wanted to make sure people knew where this was going. Every year, I think twice a year, I think it's in March and September, OMB (Office of Management and Budget) puts out new indices that we have to include for our fully funding of cost estimates. So, when those came out, the last two updates for those increased the project costs significantly. And then all of a sudden, they said, well, we expect inflation is going to drop to just historic levels after that. We didn't believe that was going to be the case. We thought, we're still going to have it. And who knows? I mean, it's kind of a roll of the dice there. So, we assumed that there's going to be two more years of high inflation, and then it's going to start to tail off. So that's what that number is based on, that high cost because of the inflation. Do we know that's going to happen? It's hard to tell. So, we're watching that.

MR. HETTEL: So, you're not telling us here today that these three locks are going to cost the \$1.1 billion, \$1.0 billion, \$1.055 billion? You're saying that's your estimate due to anticipated inflation costs?

MR. FRITZ: That's exactly right, Marty.

MR. HETTEL: I remember back in '16 when this project was authorized for the \$3.1 billion, and then we were so elated when the value engineering study come in at \$1.8 billion. And, my goodness, now we're back at your estimated cost of project, over and above the original authorization, of \$3.25 billion. I understand everything we're facing in this economy right now, and it was authorized in '16, and here it is you just got funded in 2021. I know costs increase going down the road. I think it's just worth stating we went from \$3.1 billion to \$1.8 billion to \$3.25 billion. How can we manage that? I know you'll do as best you can to control the costs in the construction of these projects, and we'll see once you get into construction what you think the anticipated cost will be. So, thank you.

GENERAL GRAHAM: So, Steve did a great job, Marty, putting this together, and, to me, this is what transparency looks like, because this is what the engineers are thinking at that current time. It's good for this Board certainly to hold us accountable for getting the engineering right, part one, and part two being in control of the project, okay.

So, I just want to reiterate my opening statements, and as affirmed by Ms. Brown, is we're going to be transparent with you with where we believe those costs are. So, Steve laid out the bottom -- we're sharpening our pencils right now to give some numbers to Ms. Brown to send over to OMB, and so this is currently what he's thinking. And we're going to go through this formal process, this change control board that we talked about, to put as much rigor as we can into at that mark in time.

So, Steve, let's just focus on Montgomery. You said the design right now is at 65 percent?

MR. FRITZ: We just finished 60 percent. We're starting towards the 90 percent, sir.

GENERAL GRAHAM: Okay. So, there's still 40 percent of unknowns that are sitting there, like you just talked about, Marty, with the bottom slab, how we're going to build this in-the-wet and the dry, and Steve said current thinking is, going to do a little bit of both, you know, as we

learned from Braddock, as we learned from Charleroi, as we learned from Olmsted. So, we're just going to show you those numbers, and when we're going to snap the chalk line, that's when we'll put it into the tape, into the CIS.

Okay, so we're taking a little risk here, because if this number gets up to other elements, they're going to say, Holy smokes, what are you doing? You didn't tell us this. And we're going to bring up the good folks from Nashville here, Colonel Sahl, who has been bitten by that a little bit in the last year. So, this is what transparency looks like.

MR. HETTEL: I understand. And in that realm of transparency, if inflation de-escalates, when will you look at these numbers again? Will you look at them on an annual basis?

GENERAL GRAHAM: Yeah, you bet. Absolutely. Annually is a minimum that we look at those.

MR. HETTEL: Okay.

GENERAL GRAHAM: Okay. And we can also do them as we saw with Kentucky, and certainly as we just saw with Soo (Lock). I know this isn't part of this. Sometimes we don't really know until we put the bids out and we see what the contractor is really going to tell us.

MR. HETTEL: I understand. As a contractor, if I'm looking at this and say, they got \$897 million in the IJA, but they're saying \$1.185 billion, I may come in with a bid and say, I'll do it for \$1.185 billion. That's what scares me about when you project these numbers out.

GENERAL GRAHAM: Right, or I get somebody bidding at \$897 million when it's really \$1.1 billion, and they're just going to change us to death, right? And then I'm not honest with you on how much this is really going to cost. So, there's a sweet spot in there, Marty, and we're going to try our best to be transparent with you as we search that. Sometimes we won't really know where that sweet spot is until Steve trips over it.

MR. HETTEL: We experienced that with Olmsted and Kentucky, so we understand that stuff changes that are out of your control.

GENERAL GRAHAM: That's right.

MR. HETTEL: But just to estimate \$1.185 billion on a lock, like I said, I'm fearful, if I'm a contractor, I'm going to go, I got \$897 million, I'm going to bid it at \$1.185 billion. I understand the thought of bidding it at \$897 million, and then he has to come back and ask for more money. Well, sometimes that happens, aka Kentucky.

MR. FRITZ: I just want to make one thing clear with the table. This is total cost. This isn't just construction costs. So, there could be multiple contracts in these. There's engineering, there's real estate, there's modeling, all sorts of things go into this. There's not enough aggregation in it for a contractor to say, This is what the contract is going to cost.

MR. JUDD: Steve, Damon Judd from Marquette. Just one quick question. I may have been reading too much into the words here when I was going through this ahead of time, but I know we've been focused on the inflation conversation, but it looks like between the second to last box and the last box, that the staggered versus concurrent change is part of this as well. Is this really predominantly inflation, or is some of this differences in the project as it's evolved over the last year, because just as we start getting our mind around what we should expect on inflationary pressure across the board, if there's a big chunk that's related to execution change, without trying to pin you on a number, just is that part of the story here, or is this really all inflation over the last year?

MR. FRITZ: It's mostly cost of time and money, so it's mostly inflation.

MR. JUDD: Okay.

MR. FRITZ: In the one scenario, IJJA, it says that both Emsworth and Dashields will be constructed concurrently, and in the second, the last box there, the \$3.25 billion, it says that they will be concurrent, but they're staggered a little bit. So, you move that construction out a little bit further in time, so it costs a little bit more.

MR. JUDD: Okay. Appreciate that. And then I would just say, General, to your point, that this level of transparency I think is great, and I think we as a Board just have to understand that, you know, we're all seeing this in our businesses. We talked about this. I mean, I can't tell you what our costs are going to be next year either, so we're just going to have to be patient and work through this as a Board. These are all going to evolve, and the story will be what the story will be. But I appreciate the level of disclosure here.

GENERAL GRAHAM: And thanks.

MR. JUDD: You're welcome.

GENERAL GRAHAM: So, Steve's lived through this. And what I just want to add to the next topic is, the two big programs that Steve is handling, Lower Mon and now Upper Ohio, we've learned that we should look at these as systems -- NESP is a good example moving forward with that -- not just piecemeal individual projects, which is hard to do within the context of a larger overall system. So, we're happy to take your feedback on how we do that better. We certainly got the Board's feedback from the motion that Marty just had that it makes sense to go program by program, but we'd like to see them individually broken down by the projects inside that, and we can certainly do that. Incorporated in that is, as Steve spoke to, some assumptions we made on, how is that program going to unfold. We're certainly going to see that with NESP, and we have somewhat of an idea of the staggered construction that he just talked about, somewhat concurrently, but that will be driven by how the funding profile shakes out. And so, we expect those numbers to be dynamic as a result of that. And so, when we meet, we'll put the numbers out there and explain the changes. Fair enough? Okay. Fair enough. Steve, is that fair for you?

MR. FRITZ: That's fair, sir. I just got this last piece of area to talk about.

GENERAL GRAHAM: You're doing pretty good up there. Ms. Brown, any comments to that? You live this life every day.

MS. BROWN: Yeah, I think certainly transparency is really good. I think what would help me is whenever we talk about numbers, we need to make sure that whoever we're talking to understands the underlying assumptions at the time, because people get fixated. You say a number, and then they want to hold you to the number, whereas if you say a number: okay, this is based on what I know, these are the things, underlying assumptions, and then when you come back with a different number, you can say, the number is different because the assumptions changed. But I just think, it's good to be transparent, but we've got to make sure that we are communicating well.

GENERAL GRAHAM: The number is based on this and this.

MS. BROWN: Right. And that we communicate to other people what those assumptions are, so they have a true understanding.

MR. FRITZ: Very good point. You have to know what the assumptions are. Thanks for clarifying that.

Last thing I want to talk about is cost evolution. So, we're working on right now a new cost update for the project. We expect to have that late fall. I'd say before the end of the calendar year, we'll have a new certified cost estimate for this project. And that's going to do things like help us inform the Capital Investment Strategy, the tables and the scenarios. Today is the first time I saw those numbers for the table for the how we're going to invest over the next few years, and we probably need to have some more discussions, not right here, but internally, about how we see that playing out for the Upper Ohio Project, just to make sure everybody is on the same page and we're consistent. If we're truly going to use it as our plan, you know, this is our marching orders, then we got to make sure we're all on the same page.

CHAIRMAN MURPHY: This is Spencer. I think as part of that, and maybe this is already part of that, sort of out year capability numbers I think is really helpful for us, and helpful for you, I think, when we need to talk to Congress about, hey, look, this is how this project is going, and this is what we see for the next several years. Again, that increases transparency, but also can help us in our conversation with Congress about how to maneuver these projects across the finish line.

MR. FRITZ: All right. Next, there are several challenges or risks that the project still faces. Our primary concern, of course, is if we have a failure of one of the facilities we're working on while we're actually working on it, that would stop navigation at that particular facility. So, the idea is let's get these things built and functional as quickly as we can. I've listed some proactive maintenance items that we're engaged in, things like inspections, and just recently we finished pinning together the Montgomery middle wall again so that it doesn't crack in half. So, it's things like that that we're looking at. Recent inflation has caused cost escalation factors to really go up. So, we're watching that closely, just as we talked about a minute ago. I gave you a hint on that previous slide, that \$3.25 billion. That's what that could go to if those things continue to

move up. It's difficult to predict how that's all going to play out, but it is going to play out somehow, and we will adjust as that happens, we'll make adjustments or justifiers as we need to, as time goes on. To help to mitigate the risks of things like that, so when contractors bid for a particular project like this, it's a long project, so it's going to take 8 to 10 years to build this, so when they're looking into the future, they're saying, how much is it going to cost me for steel or cement into the future? It's hard for them to predict what it's going to be, and we can't do it any better than they can, so we're going to try to mitigate that risk by using things like economic price adjustment clauses in our contracts, and that will identify particular commodities or materials that the contractor will use to build the facility, and if the cost increases so much over a period of time, then we can adjust the price of that particular material so that it's either reduces the risk on the contractor, and it could reduce the risk for the government as well. So, it could be a cost savings benefit for us, and it could be a risk reduction for them. Otherwise, they'd build that risk into their contract, and then there's no way for us to recapitalize that or to get that money back.

GENERAL GRAHAM: So, in English, steel prices right now are probably pretty high. If they bid Montgomery right now, they would put those high steel prices in there. And if the cost for steel falls over the next six years, then we would adjust that down. The contractor would get paid less, okay. But we are taking some risk. Maybe steel prices could go up. But we think this is -- given where we're at in this environment, that this is a prudent approach to take that's fair to our contractors and also is the best shot to deliver you a reliable system.

Questions on how we're approaching that? Okay. So that's another aspect that's going to add some volatility to those numbers.

We're going to let the districts make the calls within the markets as they see them. You know, if they're in a competitive market, that they think that nature will give them good prices, then might not need to, if it's a more remote location. But we want to leave the local experts, the districts, to make that call to the maximum extent possible.

MR. FRITZ: Thank you, sir. The last thing I really list there is resource competition, and that's a challenge because of the market uncertainty. You know, the price of material is going up and down. Contractors have a lot of work now because of the Jobs Act. It might be tough to get materials, might be tough to get skilled labor, non-skilled labor to do this work, so we're kind of watching that as well. So those are some things that we are concerned about with that market uncertainty. And all those things kind of compile into making the bid -- the bid environment maybe not so advantageous to us. Those risks mean higher bids. So, the idea is we keep an eye on those markets and see what they're doing, but those things have an opportunity to raise the price of the project for the individual contracts.

And that's my summary for Upper Ohio today, unless there's any other questions. Thank you all very much. See you again in a little while.

MR. POINTON: Thanks, Steve.

MR. FRITZ: Thank you.

MR. POINTON: You can use a laser pointer and that's it. So next on the program is the Mississippi River Lock and Dam 25, part of the NESP. So, we've got Andrew Goodall here from Rock Island District, I think you're the project manager from Rock Island, for the NESP. So, Andrew?

MR. ANDREW GOODALL: Yes, sir. Thank you very much for the introduction, Mark. General Graham, Chairman Murphy, Board members, federal observers, good to see many of you again. I love having an opportunity at this meeting to brief all the great things we're doing in the NESP program. As Mr. Pointon mentioned, I am the NESP regional program manager in the Rock Island District. Mr. Lopez is our project manager, mega project manager for Lock 25. He's listening in today. He had another commitment. He wasn't able to make it out here. So, he's my lifeline. He won't be speaking on the meeting today, but happy to answer any questions if things come up that I can't answer.

Okay. A little bit small on the screen here today, but what I wanted to focus just very briefly on is Lock 25, the overview of the scope of the project. So upper left-hand corner, again, it's easier to read in your slides, 1,200-foot lock, a new 1,200-foot lock with upstream and downstream approach walls. The lock will be to the right, immediately adjacent to the 600-foot chamber. Our goal with the project, as is within the program itself, it improves redundancy, reliability, and efficiency.

Specifically, Lock 25, current lockage times can vary between two and a half to three hours. With completion of the lock, we anticipate reducing that to approximately 45 minutes. That improves, of course, for every lockage that goes through, or every tow that goes through the lock there, every single time.

So bottom left is some more project benefits and key features.

Upper right-hand side here, design and construction overview. So right now, we anticipate design taking approximately three years. I'll go into some more details on schedule here next. Construction, anticipate that's going to be handled with two phases. The first phase is some lock wall modifications to prepare the existing chamber for the new lock. Phase two is essentially everything remaining for the project.

Fully funded project costs. I took the note from Mr. Fritz' presentation and the conversation. This is the cost table we have in here right now. As listed here, 2021 dollars, \$732 million. The project is currently going through a cost update. We anticipate having that update by the end of October. We can, in turn, of course, share as that update is completed, so we'll do a better job of preparing some of those updated costs in future presentations.

Okay. Lock 25 schedule. Work done in FY22. So, Phase 1, construction contract award. We anticipate an award any day on that contract. Again, that's a smaller contract, approximately \$10 million, that will do some advanced work for the future 1,200-foot chamber. Lots of risk identification. I use the term "lots" because you'll see here on the next couple slides many different risks we've identified for the project. Of course, our job is to mitigate those risks through many different means. I'll go into some of those details here.

Following in Upper Ohio's footsteps and using a lot of lessons learned from that team, we're able to do very significant construction contractor industry coordination. Same exact time frame as Steve's team did it as well in the June time frame. Approximately the same amount of attendees. Really significant interest. And I think for us, the biggest thing is getting those large construction contractors excited about the projects we have on the Upper Miss. Maybe they haven't been in that specific area of the country before for these large projects, but really presenting that we have these large projects that we need large, sophisticated contractors to help us construct. In turn, we have used feedback from that construction industry coordination for developing our acquisition strategy for the project. As listed here, we're also going to the enterprise level within the Corps, all throughout the nation here, trying to figure out the most effective acquisition strategy for the project, with the full funding up front, and using those lessons learned to develop an acquisition strategy. And as mentioned here -- I guess I didn't specifically put a bullet, but we're also working with the SCO (Supervisory Contracting Officer) Atlanta. Her staff is going to be actually at Lock 25 at the end of the month here. Trying to get them up to speed on the project itself, our current targeted acquisition strategies, and of course we're building that relationship, because any acquisition strategy we develop of course has to be approved at that level from a contracting standpoint. And then of course last, but not least, team development and then advancement of the design. That team has been fully stood up now. That team is primarily comprised of St. Louis district staff, but also INDC (Inland Navigation Design Center) staff, to utilize that knowledge and lessons learned on an enterprise level.

Next, okay. Ongoing and remaining work. So current project schedule.

GENERAL GRAHAM: Hey, Andrew. Sorry. So, a little bit of Corps speak. So that's two cups of coffee you owe Mr. Henderson. So, one, can you tell us what a SCO is and why it's important to bring that person in early?

MR. GOODALL: Sure.

GENERAL GRAHAM: And then can you tell us what an INDC is, and why that's important across the enterprise?

MR. GOODALL: Absolutely, sir. So, your first question, the SCO. So, the SCO is the Supervisory Contracting Officer. I believe I have that terminology correct. Essentially, above a certain threshold, and I don't remember the threshold off the back pocket here, but our project is above the threshold that it requires that contracting office approval, and it's an Army contracting function, I believe, and that level is where we have to go for this project. So, bringing that individual on early and often helps us with the coordination on the back side, because that acquisition strategy is how we're going to solicit the construction contract and get it done. So that's your first question.

Second question is INDC, so -- I'll get better with the acronyms, but that's the Inland Navigation Design Center. So that is headquartered in Rock Island District. We use the INDC. And I should say the director is in the Rock Island District, the assistant director is in the Pittsburgh District. We utilize the INDC for lessons learned across the entire Inland Nav portfolio when it comes to

machinery types, gate types, acquisition strategy types, all those types of things, the enterprise-wide Corps lessons on our future projects.

GENERAL GRAHAM: So instead of each district trying to figure this out on their own, the Inland Nav Design Center -- it was split up on purpose. A piece of it's in Pittsburgh, which is the Great Lakes and Ohio River Division, and a piece of it is in -- the main piece -- is in Rock Island, the Mississippi Valley Division. That one entity is in charge of all the locks we're building. They oversee the design. The project engineer comes from that entity. So, we should get lessons learned as we continue to recapitalize this system. As we get rets and sets doing this at Montgomery, as we get rets and sets doing it at Charleroi, those lessons are carried through. We learned a lot at Olmsted, we learned a lot at Charleroi. We're going to make sure those lessons are truly lessons learned, not just lessons observed and then forgotten about. So, the Inland Nav Design Center, on getting the design right, is kind of the key connective tissue in all that.

Mr. Belk, what did I get wrong? Anything to add to that? (Indicating no.)

CHAIRMAN MURPHY: So, General, just a quick question to follow up. As described, that makes it sound as if all designs for all future construction, all new construction will flow from inside the Corps. Is that correct? And my question is, does that allow for, like, a design build or some other contracting and bidding?

GENERAL GRAHAM: It absolutely does. And we certainly always want to leverage the power of industry. Particularly given the current situation -- you saw that big bar in FY22. It's like, well, how fast can we expand the Inland Nav Design Center? Well, not that fast. Okay.

So, we'll have to turn to our industry partners. And we didn't bring any of the engineering team, and maybe next time we'll bring Mr. Pete Perez (Headquarters USACE Chief of Engineering and Construction Division) in, who oversees the engineering department, to better answer that question on how we make sure we get the engineering right. My simple answer to that, Spencer, is if the capability exists within industry, then it makes sense to be able to go ahead and leverage that. Some of it is the expertise for some of these things, like lock construction, it mainly rests with the Corps.

I'm sorry, Mr. Smith, anything you want to opine on that?

MR. SMITH: We need to help get them engaged and help us understand the best way to do it. I think that's going to be a big need starting with the next couple construction projects, such as the lock at 25.

GENERAL GRAHAM: It's also the projects on the Ohio River and the GIWW. Last thing on INDC.

MR. GOODALL: Thank you, sir. I know you said last item on INDC, but I did have one more, just to maybe drive the point home, is that the technical leads, as the technical lead, I should say, for Lock 25 and then LaGrange, that I'll brief last, are INDC employees that are baked within the

team. They lead that whole design team and every day lessons are learned as we move out on these projects. So last point, I promise. Okay.

So current project schedule. As I mentioned on the previous slide, three-year design period, have FY23 to FY25. Design has started now, but it really will start in earnest in FY23. One year -- again, I use an acronym here -- real estate acquisition period. We can start that concurrent with a 65 percent design once we have a good feel of what we need from a project standpoint. And primarily here, this real estate acquisition is for the lay-down staging areas required for the project. One and a half year acquisition period, again, that's that acquisition strategy. We're already starting to work with the SCO's office, specifically. So that's the anticipated time frame.

And then a five-year period of performance on the construction contract, ultimately finishing up in FY32. One caveat to this schedule is that we are adamant within the NESP program about providing the Users Board a schedule that has a high confidence level that we feel in the Corps we can achieve. We will discuss here in a few minutes of a couple different contracting types that we are evaluating to try to pull that schedule back a little bit, but we're still working through those details. This is our confidence schedule we have as we stand today. Again, with two phases: initial Phase 1 and then Phase 2 for the 1,200-foot lock.

And then last point on this and I'll pause for any questions. Current completion schedule does assume the Corps' traditional design-bid-build contract. We're exploring other contracting methods, but that's what this schedule currently assumes. Any questions?

CHAIRMAN MURPHY: I just had a question. It's really broader than Lock 25. But looking at the real estate acquisition that's concurrent with 65 percent design, is that consistent across all of these potential new Corps projects? In other words, like I'm thinking of either LaGrange or Brazos River, you know. Is there a way at a certain point that you could do some real estate acquisition before construction, or do you need to be certain of the design, or is it project specific?

GENERAL GRAHAM: I'm going to let Andrew get into details, but you're asking for real estate for, I'm going to guess, two purposes. One for lay-down yards in which you're going to need to construct it, and then the other one might be for any environmental mitigation effects that you might need.

MR. GOODALL: Yes, sir.

GENERAL GRAHAM: And the construction one you can kind of figure out, but the environmental one, that's going to evolve.

MR. GOODALL: Absolutely, sir, that's exactly right. We have confidence here that lay-down, as I mentioned here, is the primary real estate acquisition needed at Lock 25. For those of you, of course, that have been to the site, it's kind of on its own island surrounded by a bunch of wetlands, so the goal there would be to acquire what we need from a staging standpoint.

And the last site I will go into, LaGrange as well, there is a pretty significant real estate need on LaGrange because this project at Lock 25 is constructed riverward. LaGrange is landward, of course, so that creates additional acquisition needed. But we are comfortable in the 65 percent level because the acquisition needs here are primarily for the staging areas.

MR. HETTEL: Andrew?

MR. GOODALL: Yes.

MR. HETTEL: Question on the LaGrange. The land acquisition at LaGrange seems to me to be pretty major.

MR. GOODALL: Uh-huh.

MR. HETTEL: Plus, the environmental mitigation with the ponds and everything else that is around at LaGrange. Do you have an estimate on that cost on the planned acquisition and environmental mitigation? I know that can change once you get in there.

MR. GOODALL: Sure. So, I can tell you the amount of acres we need to acquire for the project itself. Of course, it's highly variable on the land value in that specific area. We need approximately 500 acres to construct the project, to primarily construct the approach channels themselves. Again, because we are constructing it landward, there's a significant amount of excavation required to make that happen. Of that 500 acres, approximately 200 acres is forested wetlands that we will have to mitigate for, so we've already stood up a team, and we'll hit that here in a few minutes on LaGrange, working through what the mitigation needs are and those associated costs. I don't have better details on the costs yet, but those are the amount of acres we're potentially going to impact.

MR. HETTEL: Well, and my question is derived from this slide here. You're talking about a one-year real estate acquisition period.

MR. GOODALL: Yes.

MR. HETTEL: LaGrange is one of our priority projects. We've already received some funding. We've got the money in the trust fund, thanks to Mr. Pointon's hard work last night, and just as an example, if it's \$100 million you need, that's only \$35 million from the trust fund. Why aren't we spending that money now? Our goal is to spend our trust fund dollars on an efficient basis every year. Why aren't you doing the land acquisition now to prep for LaGrange, so you don't have another year delay in starting construction at LaGrange?

MR. GOODALL: Sure, I'll answer part of the question, maybe throw it to Mr. Belk or others. So, the primary focus to start for LaGrange is developing the footprint of the lock. And as I mentioned, those are the ranges of the amount of acreage we need there. We could do real estate acquisition with future appropriations depending on the size and acreage that we need. As I mentioned, that is a potential. So, I don't know, Mr. Belk or others, if you want to weigh in on that, too?

MR. HETTEL: So, would that be part of your, quote, unquote, capabilities moving forward?

MR. GOODALL: So, in FY23, it could be part of the capability that we have moving forward. The real estate acquisition. Once we have the needs specific and the landowners we're going to effect, I think, yes, it could be part of our capability in the future, acquiring real estate specifically.

MR. HETTEL: And as you stated here, every year that we can reduce the construction of these projects, as Steve has stated, the less it's going to be. So why not let's try to move forward with the land acquisition for LaGrange when you go to construction? That way we're not losing another year, increasing the cost down the road. Thank you.

MR. GOODALL: Absolutely. Okay.

Next, project issues and challenges. There's two slides listed here. The intention of these two slides is to discuss the big issues we're working through as a team, and that's the biggest part, is we are working through them, but I wanted to be, of course, as transparent as possible. This is one that we've discussed previously. I have a lot more fidelity here. What the image is showing is a major scour that has happened since -- from, really, many years ago. We're just now figuring out what that scour looks like, mediating the scour, really using the construction contractor industry input on how we move forward, as mentioned here, to minimize costs and schedule impacts. The biggest thing is we have a plan for it, but we need that continuous contractor input, because it's a challenging situation down there at the site.

And two others. The bottom one has been hit on already, economic price adjustment clauses, construction industry engagement to inform our design and schedule. And that graph just shows our cost indices and where we have seen things shoot up the last year here, of course, as we're all very aware of.

The top one, the minimize impacts to industry stakeholders and nav during construction. So that is a big driver in the schedule that we showed a few slides ago, is continuously maintaining navigation during construction, with a few, up to five winter closure periods incorporated with that. So that also requires a significant amount of contractor input.

As I mentioned here, these two contracting types, ECI (Early Contractor Involvement) and IDaC (Integrated Design and Construction), are potential, that we're still working through with that acquisition strategy. That would get -- both of them would get the contractor on board early, and/or be able to work through some of the fabrication needs, the big gate fabrications, the steel fabrication needs up front for the project as well. So, I will have a lot better updates as this moves on, but I wanted to identify three of the top issues and risk areas that we're seeing right now as a team. But as stated in the mitigation strategy, these are all mitigated by early contractor input on the path forward, which we are moving down already.

MR. JUDD: Andrew, Damon Judd from Marquette. On that point, I would just ask, in addition to the work you do with the contractor, just keep the operators in mind, you know, as you sit here

with the current formation of the Board, between the company that I work for, the company Marty works for, and the company Crystal works for, just across those three people, we probably represent over half the volume going through that lock. I'm guessing, but that's probably a pretty good guess. So, we can bring another mariner perspective of impacts you may want to see. We may not all be at this table by the time you get to that point in the process, based on the timeline, but I think that's a really important step, because this is a critical artery.

MR. GOODALL: Absolutely noted, Damon, for sure, and we do anticipate having much more advanced coordination on the industry side as well as we move forward, and, again, it's always in the back of our mind. We understand the main artery here and minimizing impacts to navigation is one of our number one project goals, absolutely. So, thank you for that. Okay.

Next, that's Lock 25. I did want to provide an update for LaGrange, because we did receive money in the FY22 congressionally directed spending for LaGrange. Similar to what Steve had mentioned, we received a pot of money, if you will, for the navigation side. We directed that funding towards LaGrange, the design, knowing where it stands on the Capital Investment Strategy list. So as listed in the first bullet, we do have an INDC technical lead on board leading the efforts.

The primary goal this fiscal year, and which we are on track for, is to award the A/E design contract, and that design contract design will be done by Stanley Consultants. The primary goal is to do the initial site investigations, to get a better feel for acreages needed to build the project final lock location. And the lock placement has already been settled. It's going to go on a landward side. But really figuring out exactly where that lock is going to be, and all of the initial lock design, to approximately 35 percent. So that's on track, and a really big effort by the team up until this point.

And then last but certainly not least, another enterprise-wide lesson learned. I saw Steve had it on his slides as well. ERDC has begun to update the physical model, and believe it or not, LaGrange had a physical model constructed many years ago. It was actually never destroyed, in hopes that NESP would receive funding at some point in time. So, we're rehabbing that model. And then including nav industry coordination, specifically pilot simulation, will be coordinated once the lock features and the lock location is determined. So good news is the physical model is there, we don't have to go through construction of it, and we've started that coordination with ERDC.

That concludes the update for LaGrange today and the briefing on NESP as a whole. Any other questions for me?

GENERAL GRAHAM: Mr. Henderson, ERDC. Do you have any idea what that one is?

MR. GOODALL: Oh, sorry.

GENERAL GRAHAM: That's another cup. Like that's a whole pot of coffee.

MR. GOODALL: I guess I'll just bring it over, buy some Starbucks. Engineering Research and Development Center. So that's based in Vicksburg, Mississippi. That's where we go for all of our research needs for the Corps of Engineers, specifically, and we do a lot of these physical models down there to really simulate conditions and what they're going to look like. Lock 25 had one done many years ago for the simulation there as well, and they're invaluable, and actually we couldn't do it without having those models constructed in advance. No more acronyms on future slides, that's for sure.

MR. POINTON: All right. Thank you, Andrew. Appreciate it.

MR. GOODALL: Thank you all.

MR. POINTON: We're going to move to a slightly different part of the country now, and the acronym is MKARNS, but it is McClellan-Kerr Arkansas River Navigation System. So, we've got Craig Pierce here from the district. He's the Deputy District Commander for Program and Project Management, I believe, so he's got a double whammy on us today. So, Craig, go for it.

MR. CRAIG PIERCE: All right. Thank you. Excited to be here, honored to be here. This is my first time to actually be here with the Board. Probably won't be my last, given the projects that we'll talk about today.

General Graham, Chairman Murphy, federal observers, and Board members. Again, thanks for your time to listen to a little bit of my project updates. So just real quick, to make sure everybody is oriented to this Three Rivers project. Let me see if I can figure out the pointer here. So, the site, Three Rivers, is basically where the White River -- which is where the MKARNS, McClellan-Kerr Arkansas River Navigation System, is at this Three Rivers project -- Arkansas River and Mississippi River, those are the three rivers, so it's down in that southeastern portion of Arkansas. As I said, the canal goes from the Arkansas River through manmade canal into the White River. In the area kind of between the White River and Arkansas River is where we're having a significant headcutting issue with the threat to losing navigation pool on the system.

Next, what we're doing is constructing a containment structure as well as a weir to allow a pressure relief valve and direct the water flow basically where it always wanted to go, into the historic cutoff area. So, we're doing this in two phases. Phase 1 is that weir. We've got to finish that work first before we can close off the containment structure. And then Phase 2 will be the containment structure plus a couple of other structures that we'll talk about as well.

And this is just some pictures kind of indicating some of the significant headcutting damage and damage to the old structures that we had in place.

Next, so Phase 1, again, is construction of that weir. The historic cutoff, we've called it HC145 Historic Cutoff at Elevation 145. We actually awarded Phase 1 on the 19<sup>th</sup> of July. Phase 2 is well underway. We are basically doing a 95 percent design review now. That will be a design-bid-build. Phase 1 is design-build. Phase 2 is a design-bid-build. We're almost complete with that design.

And then for Phase 1, we're projecting a 2025 construction completion. And then Phase 2 and all of its components we are looking to advertise early next calendar year, get to an award next fiscal year, and construction complete in 2026.

Some of the issues and challenges on this one. Frequent inundation of the site. So, we're going to get water that will disrupt construction to a degree. The water will likely change the landscape out there a little bit and the conditions that we're dealing with. This is a very, very remote part of Arkansas, so contractors, labor, you know, resources, workforce could be an issue. We did get good competition, good contractor on the first phase, so we're excited about that.

Cultural resources, that's been an issue. This is along the Trail of Tears area, and we've done quite a bit of work as far as that goes. We are required and will have an archaeologist on site all the time as we move through the project. Real estate is not a significant part of this. It is a part of it, but it's not as significant as some other projects that we deal with.

Next, just kind of a general status of funding. Investigations funding shown at the top there. Our current budget amount, the official budget amount, \$232 million; the 902 Limit is \$275 million. Our latest certified cost is \$258 million, and that's what we received. That's the completion funding. It was on a previous slide. We got \$258 million available between the President's budget and IJA funding.

We are redoing the certified cost. We are expecting the cost to go up some, with that, based on our Phase 1 award and just the market conditions that we're in right now, but we don't have a new number for that at the moment. We're looking at December. So, before we solicit in January, we should have a new estimate. Thank you.

And I'm here on behalf of our project manager, Jonathan Gillip, who has briefed you in the past before.

Okay, now I'll transition to 12-foot channel, and give me a second to switch my slides.

Next slide. I'm pretty sure that will do it. Okay, I'm pretty sure everybody is familiar with the system in general, but obviously we're talking about deepening 9 to 12 foot, the entire system, from the Port of Catoosa down to the mouth of the Mississippi River.

And this is just the original authorization for the system itself.

I put this in here basically to acknowledge that in 2004 is when we received the authorization to go to 12 feet. You will notice that the authorization really speaks strictly to going to 12 feet. There's no funding level or cost associated with that authorization language. And then in 2020, we received the language that allows us to move forward with construction without it being designated a new start, based on some O&M funding we received in the mid 2000's.

Next, this is just a quick timeline, just to kind of show, you know, how long it's taken to get here. So received that authorization in '04. We actually finished the Chief's Report the next year, in '05, with the \$158 million project. So, using our typical indexing, we escalated in FY22 to \$274

million. That's not a new certified cost, that's just the escalation according to our policy by indexing.

I mentioned in the mid 2000's we received some O&M money. That was somewhere in the neighborhood of \$7 million. That we did some work, mostly mitigation kind of work, dock notching, some least tern islands, that kind of thing. And then we received some funding in FY21, and a little bit more in FY22 from the Investigations account, really to try to get to an updated feasibility level cost. That cost is under review at the moment.

And then, fortunately, we received the IJJA funding in FY22, \$92.6 million. So, all of a sudden, we went from kind of trying to get from a feasibility level cost and initiating some NEPA (National Environment Policy Act) work to we've got to start design and get going, and that's what we're in the middle of now. But just we really have not done any design yet. We are just now getting started. We're doing project planning, building a schedule.

I'm going to show you kind of a notional approach that I thought would be interesting.

And that's this. So, the Corps of Engineers has a Committee on River Engineering. We invited them down, we presented them with kind of a general approach how we want to attack this project. Essentially what we're doing is, with the funding flow we have right now, we are intending to build initial structures where we know we've got sedimentation problems, where we've got shoaling issues, and get those designed and constructed and let the system start self-dredging so we don't have to spend a lot of money on dredging. We're trying to minimize dredging cost.

Also want to get those in so that we can continue modeling after that and see the cause and effect of putting those new structures in and how that might affect downstream and what additional structures we might need. Right now, we've kind of built it in four phases. The first phase essentially is -- without extensive planning -- is what we plan to do with the initial \$92.6 million. And I'll highlight that in a little more detail in the next slide.

So, in this we're project planning, creating a schedule. We've got NEPA going on. We're going to do system-wide data collection and modeling to support the design in the future. We've got to get to a good certified cost, based on updated survey quantity information. And then we'll start design of those high-risk structures that we know of where we've got shoaling now, and then start working on really a lot of the disposal sites.

There's real estate, there's design, there's a lot to do there. Phase 2, we'll need additional funding to go into Phase 2, but then that will be the next level of location where we've got a moderate level of risk on shoaling, and we'll work on those structures.

The latter phases is where we'll start doing dredging based on, you know, how effectively some of those structures have worked and/or where, you know, the sedimentation has moved, and based on monitoring and potentially some additional modeling work.

There's significant NEPA. Again, this is a Trail of Tears location. We've got 18 federally recognized tribes that will be involved in our programmatic agreement. Two states obviously involved here. It's also a 50-year-old system, so we've got Section 106 involved. There will be a lot of real estate involved in this.

Okay. So, Amanda Kovak is our project manager on this project, and that's her contact info. Any questions I can address on either one of those two projects?

MR. JUDD: Damon Judd from Marquette with a question. I guess as you think about the buckets of work here, in terms of just geographic areas, I know you mentioned addressing the high-shoaling areas first, but will the plan be to kind of move upriver or to move downriver, and just in terms of, you know, as we think about break points in the project and when we will get the benefit of the deeper channel, that might be something worth considering as you think about design of your project works from there.

MR. PIERCE: Right. And we've thought through that. What these high-risk areas are across the system.

MR. JUDD: Right.

MR. PIERCE: So, we're trying to get things to where they can get to 12 feet at least part of the time as early as possible in the project. The big issue we have is some of the rock removal we're going to have to do in the Oklahoma area. That's going to require quite a bit of the dredge disposal site work. And so, what we want to do is get some things designed and constructed and working while at the same time we're working on those real estate requirements for the dredge disposal sites, so that as soon as that's done, we can fall in on the implementation in those areas and not lose time.

MR. JUDD: Can you do them all concurrently?

MR. PIERCE: That's possible. That's possible.

Well, I think we'll have to monitor it. We're not necessarily designing to try to get it to that, you know, to work that way. What we're really trying to do is design it to where the system dredges itself and we are not spending money on dredging where we don't have to. That's really the approach we're taking right now. And we're also wanting to make sure that we don't design and install structures that we never needed. So, we want to get these first ones in, do some monitoring, see the cause and effect, see if additional structures are required, and put those in if we need them, to try to keep the cost down and get to 12 feet as efficiently as possible.

MR. CHARLIE GOTTBATH: Charlie Gottbrath with Consolidated Grain and Barge. In the Three Rivers project, do you foresee any prolonged closures relative to that one, or too early to say?

MR. PIERCE: No, sir, I don't. It's really outside the channel. It's on the land, the bulk of the work. The only impact to navigation is that we're expecting contractors to use barges to get the equipment in and out, so it will just be a use of the locks.

MR. GOTTBATH: Thanks.

MR. POINTON: Any other questions for Craig? No? Great. Thank you. Appreciate it. And last before our break is going to be the Gulf Intracoastal Waterway, the Brazos River Floodgates, and the Colorado River Locks.

We have Orlando here from the Galveston District. So, all clear, Orlando.

MR. ORLANDO RAMOS-GINES: Thank you, sir. Mr. -- General Graham, Mr. -- Board members, for all, I forget their names, attendees today, this is my first time in this Board. Presenting with me is Mr. Chris Frabotta from the Operations Division, the Galveston District. I'm Orlando Ramos. I'm a senior project manager for the Galveston District. I came to the district in 2020 after many years in Jacksonville District.

I'm going to be briefing you on what we're doing on the Brazos River Floodgates and Colorado River Locks. The project was authorized in 2020. The feasibility report was finished in 2019. In 2021, we got funding.

That explains the importance of this project. So, the quick authorization, the quick funding to initiate PED. We're currently in design for the Brazos River Crossing plan. The plan includes removing all existing structures, these are structures that were built in the 1940s. If you go on the site, you will be amazed at the structures we still have today. So, very outdated facility. We really need to get these facilities updated for the benefit of our employees working in those facilities and the navigation industry.

The plan is to construct a 125-foot channel. It's going to be realigned 300 feet from the current channel, and new configurations. We're also building an eastern gate. We are also considering or evaluating, as part of our due diligence during the PED process, planning, engineering, during construction, admin and design, evaluating if there's a need for an additional gate on the western side.

During the feasibility phase, it was determined that a western gate was not needed, but during the PED phase, we will go through due diligence to ensure that the authorized plan is the plan that still needs to move forward. So, there's more evaluation ongoing at this time.

As part of the scope, we're going to be constructing new control houses, admin buildings, and other structures in this facility, and to mitigate the impacts on the projects, we're going to restore or create new wetlands, project mitigation wetlands, about 14 acres, and I'm going to show the locations.

For the Colorado River Crossing, we're not doing any design. We have not received funding yet. Probably in the following years we will receive funding for Colorado design.

Next, this is, since I attended the last meeting, there were many key points that I captured here for my presentation. I know you all are aware that these key points are beneficial not just locally, but statewide and nationally. You know, this is a high-use waterway. The brown water or petrochemical industry uses this GIWW, Gulf Intracoastal Waterway channel. We need to upgrade the infrastructure. It's outdated.

We have a high benefit-to-cost ratio of 5. That's very high. And we have to increase navigation industry efficiency. Right now, during the feasibility phase, it was estimated that the impacts to the navigation industry was at least \$10 million per year. The Brazos Crossing, the estimate was \$18 million per year.

Definitely, we need to increase the safety in this facility because current the gates are impacted frequently by the industry, because we have wider vessels these days, and we have right now 75-foot-wide gate openings in this facility.

The facility is in a low-income area, but it's really an area where there's about 20 percent of the population under the poverty level.

We continue the feasibility phase in partnership with GICA (Gulf Intracoastal Canal Association). GICA has been very helpful in providing captains with years of experience to do ship simulation with us. We are briefing frequently, quarterly -- the local, state, and federal government partners in the area so they know what we are doing, how the design is progressing, and in gathering any comments or concerns that they have for us. As far as the Galveston District, we frequently do external stakeholder briefing where the overall community is briefed with where we are, a very general briefing. This is a Cat (Category) 2 project, and I'm glad that I saw early today this it is still a Cat 2 project. That means that we are authorized, and we are awaiting construction funds, hopefully in the next year.

This is a current design for Brazos River. We are at the 65 percent design. The team has gone through necessary quality checks, agency technical reviews, and other review comments on the current design. Right now, the team is on fact check. They have answered all the questions. There's some modifications, minor, non-critical modifications, coming up on the design, and they're going to be completing 65 percent design phase by end of this month.

So, what it shows here is the current location of the sector gate. It's different than the location proposed in the feasibility phase. Right now, we're looking at around 750 feet from the river. In the feasibility phase, we were 1,500 feet. The mitigation areas on the northern banks are those polygons that you see, you know, kind of a weird shape, two on the western side of the river and one on the eastern side of the river. Total is about 14 acres of wetlands that we will be restoring in this location. Again, so today, based on preliminary analyses, we have not included a western gate on the western side of the river.

Next, this is just a close-up of the facility sector gate at the bottom, and the new buildings on the north.

So, to do due diligence during PED, in the Corps it's always asked that we utilize or use all the tools that are available to the team to ensure the authorized plan is the plan that needs to continue moving forward. So, in this regard, the team has used two digital models, a two dimension and a three dimension for the H&H (hydrologic and hydraulics) analysis and sedimentation or shoaling analysis on the Brazos River Crossing.

The team also make, early on, a decision that we needed to build a physical model, because a physical model would give us additional information that is not gotten from the digital modeling, but also, it's used to confirm the information that the digital model is providing to us. We have done so far over 300 ship simulations with the navigation working group, as it's called in our team.

Those names there are the captains that have volunteered their time. We're right now in discussions to find out how we can, per our regulations, compensate them for their expenditure in the future. So, three companies, Golding, Enterprise, and Kirby. You see the years of experience communicated to us, 35 years and below. Thirty-five years is the highest, and the minimum years, 13 years of experience. So, they have a lot of experience navigating through Brazos River Crossing.

Calibrations and modeled scenarios that have been included in the effort are listed there. Sunny days, January, and September 2020. That's with information collected by the USGS (U.S. Geological Survey) and funded by us. The flows are 5,000 cfs (cubic feet per second), less than. That's essentially a recurrence of two or less years. And moderate flows were included for May-July 2020. The big flows there were 55,000 cfs. Also included September through November 2021, with a peak flow of 60,000. That's an occurrence of one every 50 years there. So those two scenarios, per se, includes the bulk of the scenarios that will be faced by the industry navigating through this facility. High flows were also calibrated, used to calibrate and modulate the model. Those flows were from Hurricane Harvey. That is an extreme event that was faced in this area. The peak flows there were above 120,000 cfs, cubic feet per second, and it has a recurrence of one in more than a 100-year event. So, this is an extreme event. They do happen. Sometimes they do happen, with less frequency than estimated through analysis.

This is where we are right now. Completed at 35 percent design, with the value engineering study, we're coordinating with all resource agencies on the mitigation areas. We are currently in 65 percent design work submitted by the end of June. The team will be completing all their reports by the end of this month. From that point forward, then we move through 95 percent design work, currently scheduled for receiving the A/E submittal by mid-October and completing after reviews -- or completing 95 percent design by December, early January of next year. At that point we will know if we have a need to include a western gate on Brazos River Crossing site. So, we, as of today, we continue marching forward to be advertising our construction contract, pending funding, in April 2023.

Yes, sir?

CHAIRMAN MURPHY: This is Spencer Murphy. Just to be clear on the Brazos timeline, this assumes that you will receive funding for FY 2023?

MR. RAMOS-GINES: Correct.

CHAIRMAN MURPHY: And it assumes that you get all the funding, that you get what you need for 2023?

MR. RAMOS-GINES: Yes, sir.

CHAIRMAN MURPHY: And I'm assuming if you don't receive any funds in 2023, this timeline slides at least by one year, correct?

MR. RAMOS-GINES: At least one year, yes, potentially two.

Next, this is information provided by Programs. This is the cost estimates included in the j-sheets, the FY23 j-sheets. Total project cost has increased to \$521 million. I think the previous estimates were \$450 million. That obviously is an escalation of cost. There's nothing new added to the design -- for this cost estimate. Again, it's a reflection of increased cost. We are fully funded for PED for the Brazos River Crossing. We have expressed there that for Brazos River Floodgate -- and Colorado -- we can use \$224 million. That includes construction and initiating PED for Colorado River Locks.

CHAIRMAN MURPHY: Sorry. Spencer Murphy again. Just the total project cost, that's for both, is that for both? And then the amount that could be used in FY23, again, is that for both or is that for Brazos River?

MR. RAMOS-GINES: For both. Yes, \$203 million for Brazos and \$20 million for Colorado.

CHAIRMAN MURPHY: Okay. And, again, assuming that you got the \$203 million in FY23, that would bring you back to that timeline we just saw on the prior slide?

MR. RAMOS-GINES: Yes.

CHAIRMAN MURPHY: And then just I'm assuming if there is no funding in 2023, in addition to the delay of timeline, it's likely the cost will increase as well?

MR. RAMOS-GINES: Yes. Definitely.

CHAIRMAN MURPHY: Thank you.

MR. RAMOS-GINES: And one additional information there.

MR. HETTEL: Marty Hettel here. One quick question. The PED funding you got in 2021 and 2022, was that all utilized on Brazos?

MR. RAMOS-GINES: Yes. It is on Brazos.

MR. HETTEL: Okay. So, I know in your next slide you show Brazos as \$203.4 million. Is that in addition to the approximately \$23 million you got in PED, or do you subtract the \$23 million from the \$204 million?

MR. RAMOS-GINES: That's all-inclusive.

MR. HETTEL: Okay.

MR. RAMOS-GINES: Yes, sir.

MR. HETTEL: So, per our earlier conversation today, if we could have that broken down between Colorado and Brazos to give us a better understanding of what your needs are. You're saying you need \$203 million from Brazos, but you probably don't, if you're subtracting the \$23 million from PED, right? You only need \$181 million or whatever that number is?

MR. RAMOS-GINES: Yes, that's accurate. One caveat would be these cost estimates do not reflect the increased indexes provided during this year. This is based on December 2021 cost estimates, when we did the estimates. So FY22 cost estimate. Now, when the team moves forward and do the additional cost estimate, when we are finalizing the 65 percent design, we have to factor the new unit values.

MR. HETTEL: Sure. But your current working estimate of an FY22 cost of \$203.4 million for Brazos is reduced by the numbers you've already spent for PED?

MR. RAMOS-GINES: Yes, sir.

MR. HETTEL: So, your number is really only \$180?

MR. RAMOS-GINES: Less than. Yes.

MR. HETTEL: Okay. That's why we need them broken down per project for the authorization, so we can go explain to our congressional people, this is all we need to finish this project.

CHAIRMAN MURPHY: Yeah. And Spencer Murphy here. This is all we need, and, by the way, the current balance in the trust fund is more than enough to cover this entire project.

MR. HETTEL: Yeah. Just as a note that, it would only be \$63 million out of the trust fund to fund this project at 65/35.

MR. CHRIS FRABOTTA: Chris Frabotta, Operations Chief in Galveston. I think we might be talking past each other. So, the money received from PED, the \$16.6 million in FY21 and the \$6.9 million in 2022, that was for planning, engineering, and design. There's currently a capability out there for \$203 million for Brazos to go into construction and a separate package for \$20 million to do PED at the Colorado River Locks. So, that \$32 million is not included in that \$223 million number. So, we have a capability right now in FY23 of \$203 million for Brazos to start construction and \$20 million for PED at Colorado.

MR. RAMOS-GINES: Yeah, that's correct. I apologize. I didn't understand that question.

MR. HETTEL: That's why it would help us to have it broken down by project to understand it.

MR. RAMOS-GINES: Yes.

The next slide is it. Okay, project issues and challenges is discussing maintaining project at a reasonable cost. The numbers that you mentioned, sir, \$203 million, Brazos and Colorado, current estimate is \$318 million.

For Brazos Crossing, the President's budget did not include it. And if we don't get funding, obviously, we cannot start construction, so that would be a delay in constructing the facility. And maybe more importantly for your group here, the Board, is that the impact to the industry will continue, and that's been estimated at more than \$10 million per year.

And I think that's my last slide. Any other questions?

MR. POINTON: All right. No other questions for Orlando? Thank you, sir.

We are at the break point. It's about 12:40, 12:42 actually. Why don't we take a quick break? I wouldn't call it a lunch break, but the Bistro is open if you need to get something to eat, a bite to eat or something to drink.

Why don't we come back at 1:15, 1315?

(Whereupon the Meeting took a recess.)

MR. POINTON: Okay, let's take our seats so we can reconvene the meeting.

Ms. Stephanie Hall from Nashville District is next up to discuss Kentucky Lock.

MS. STEPHANIE HALL: (Recording interrupted, restarts) ...future contract scope includes stream and downstream approach walls, middle wall and pedestrian utility bridges, maintenance and operation buildings, and the east bank site development.

This slide depicts the major construction contracts that have been completed to date. Construction commenced in July of 1998 with the utility relocations, followed by the highway and railroad relocations that moved those facilities off the top of the dam to their current downstream locations. Separate construction contracts have been completed to build the upstream cofferdam, stream monoliths and miter gates, site demolition, utilities relocations, and downstream cofferdam.

Next, this is the downstream lock excavation. The current contractor on the approximately \$55 million downstream lock excavation contract has completed all rock anchoring, grout curtain, pipe piles, and dewatering activities. The rock excavation and blasting continue to make progress

downstream. Approximately 278,000 cubic yards have been excavated to date, which puts the excavation at 96 percent complete. The downstream excavation contractor has completed 98 percent of required contract work and expects to be finished in September.

Completion of the lock excavation contract paves the way for this contract. This is an isometric view of the downstream lock monolith contract. The colored portions show the elements included in this contract that basically finished the new lock chamber and places the majority of the remaining concrete.

The contract was awarded to Thalle Construction in September of 2021, and all contract options were exercised in March of 2022, bringing the current contract award amount to \$380 million.

The contractor was granted access to the work area on July 6 of 2022. That was six months ahead of schedule. This was a result of effective partnering, communications between all parties, and this is expected to be complete in 2027.

There will be one final contract award to bring the new lock online and complete the project.

Thalle Construction internally is working to provide a schedule that has their contract finishing early at this time that they're going to work to. We are not going to put that in our official schedule, but it's important to note that they understand that we would like to move this faster. So, for their internal workforce, they are working on an early finish schedule that they're going to drive their work towards in the hope that they can accomplish that. At a minimum, I think it provides us higher confidence that they will finish on time.

The remaining project scope items will be included in the follow-on lock operational contract. That contract scope includes middle wall and pedestrian utility bridges to provide equipment access to the new middle lock wall to support future maintenance and carry utilities across the lock chamber, respectfully. Upstream and downstream approach walls to aid vessels for safe transit through the lock. New maintenance and operations building to support the operations staff. And the final piece will be the east bank site redevelopment. Estimate baseline schedule for completion of the contract is September 2030.

I think this is the slide everybody is interested in. So, the total project cost and schedule estimate was certified in April of 2022. We have followed up that effort with a value engineering study to identify opportunities to make improvements. The selected path forward is one follow-on contract, operational contract that was described on the previous slide. The certified FY 2022 total project cost estimate is \$1.56 billion, which is an increase of \$332 million versus the previous estimate. This amount is below the Section 902 cost limit of \$1.63 billion. The expected time frame for when the additional funding will be needed is shown in the table beginning in FY25. Yes?

MR. HETTEL: Stephanie, Marty Hettel. We've heard a lot about inflation. Your \$332 million, does that take into account all the inflation we've heard about today, inflationary costs?

MS. HALL: It has taken into account the inflation at the time of the estimate. So, we used the escalation at that time, and they look forward towards what items would cost more. So, to the best of our ability, it reflects where we were at that time and what we thought the market would be when we would award this.

MR. HETTEL: And that was just last spring, right?

MS. HALL: Yes, it was.

MR. HETTEL: So that should incorporate all the inflation that we've experienced other than from, like, May until now, whatever that number is?

MS. HALL: Yes.

MR. HETTEL: Okay. Thank you.

MS. HALL: And we will be doing another one in the right increment as well. Any other questions on this slide? Okay. Let's go to the next one.

This slide shows the project's allocations through time broken out by type of funds. We have received \$465 million in IJJA funds in FY22, which brought us to the fully funded FY20 total project estimate amount. As just discussed, the recent updated cost estimate revealed requirements for additional funding of \$332 million. So, you can see here we call out the difference between what we did in 2020 as an estimate and what we now know to be the estimate in 2022.

The bottom chart shows the timelines for the project's construction contracts. Completed work is in green, ongoing work is yellow, and the future contract is in gray. The estimated project operational online date is planned for July of 2029.

CHAIRMAN MURPHY: This is Spencer Murphy. What at this point, is your confidence level on that 2029 date?

MS. HALL: So, can if we could go back to slide 7? One more. Okay, right here. So, what we show here, in full transparency, is the output of our total project cost analysis. And so, the project completion date baseline is 3 September of 2030. What we're saying there is that for completion, that's our baseline. Any movement would move us to the right of that.

CHAIRMAN MURPHY: This is Spencer again. So, I guess my question is, it says 80 percent confidence level of total -- I mean, project completion date of March 2033. Does that 80 percent confidence level also apply to the 2029 operational date?

MS. HALL: The 2029 operational date is not at an 80 percent confidence level. It is the estimate that works with the baseline and then adds in other risks for what we call the estimated online date. The only number that we apply the 80 percent confidence level to is the project

completion date. The interim milestones that get us to that, we don't run an analysis in the Monte Carlo scenario for confidence levels.

CHAIRMAN MURPHY: Thank you.

MS. HALL: Is that okay? Okay, all right, let's go back to major risks. These are consistent with what we've spoken about before, increased cost and availability issues associated with construction labor. The geologic conditions and the lock foundations, those are minimal. The engineering team is comfortable with what we've got in some surface investigation, but as we do those types of excavations, that's always a risk. Tailwater fluctuations. We have the cofferdams up, and the cofferdam is at a level of a 40-year return interval. So, if the water comes above that 40-year return of interval, that may cause, depending on the work that is ongoing, an evacuation event at the job site. That risk is also appraised at low. So, to add a little bit more to the confidence level of the online date, the Thalle contract, again, we got into the pit working six months early. We've been very fortunate with a contractor that truly understands the requirement to get this done on time, or early if possible. So, this is the major contract to get us -- this is the big one. The follow-on stuff is much less complicated, right?

So, their ability for us and them to get them in the pit six months early, for them to take on that initiative to say, we would like to do a schedule within our company to target an early date, we'll share that with you, Corps, it's not our official schedule, but we're going to share that with you, and those things that we can work in the field to facilitate them accomplishing that schedule, we are leaning into do with this contractor. We partner regularly, we talk regularly, we are doing everything we can and have a willing and able contractor to bring this in on time or early. So that provides me a confidence level that, in a construction industry, with the market that we're in right now, I think this is as good as we can feel about moving forward with a contractor.

That's all I have on Kentucky unless we have more questions.

MR. POINTON: All right. Thanks, Stephanie. You're next up.

MS. HALL: I am next up.

MR. POINTON: Moving right on to Chickamauga Lock.

MS. HALL: So, let's just go to the next slide, please. Okay, there we are. The project scope includes construction of a new 110-by-600 navigation lock to replace the existing lock that is suffering structural instabilities. Based on expenditures through June of 2022, the project is 48 percent complete.

This slide depicts the major construction contracts for completing this work. The green blocks indicate completed contracts ranging from the road relocations completed in 2007 to the cofferdam construction and lock excavation work completed in 2012 and 2019. The yellow blocks represent two current contracts that I will talk about in the next couple of slides, and the gray blocks show the two remaining follow-on contracts that include the downstream approach

walls, decommissioning activities, and final site restoration. Timeline for the award of the follow-on contracts is subject to site availability after the lock chamber contract is completed.

Work on the \$245 million lock chamber contract continues through FY 2022. These photos were taken from the ped bridge used to access the cofferdam work area, looking upstream and downstream. There's a lot of activity ongoing in the cofferdam, and progress is being made. The contract is approximately 42 percent complete.

However, the contractor is experiencing delays. They are currently approximately 340 days behind for the June 2022 schedule update due to slower than anticipated concrete placement rates. The average monthly concrete placements have improved during the calendar year of 2022, achieving approximately 5,800 cubic yards per month, targeting an average of around 8,000 cubic yards per month.

The contractor submitted a certified claim on 30 November of 2021 covering a variety of topics. Mostly alleged COVID-19 related impacts. Activities to resolve the claim are ongoing.

Scheduling of an alternative dispute resolution has not been finalized but will likely occur in the February 2023 time frame. Do we have questions on this or no? All right.

CHAIRMAN MURPHY: Spencer Murphy. That dispute, does that center around time or money or both?

MS. HALL: So currently what I can share is the contractor's request is for \$96.3 million and 590 days.

CHAIRMAN MURPHY: Thank you.

MS. HALL: Okay. Work on the \$61 million upstream approach wall contract that was awarded on 9 September of 2021 to C.J. Mahan Construction Company was kicked off in FY22. The graphic shows the contract scope highlighted in blue and the aerial photo shows the contractor's equipment and staging area adjacent to the existing lock on the right side of the photo. The contractor will be working upstream of the dam, drilling, and constructing reinforced concrete piers over water, and transporting the previously fabricated 110-foot-long concrete approach wall beams that are currently stored at the next project upstream of the site, and setting them in place. The contractor has completed the exploratory drilling and onsite batch plant.

Currently, the contractor has begun to mobilize to begin installation of the land side pier. The scope of this contract can be executed independent of the ongoing lock chamber contract and is planned for completion in February of 2024. And that's a significant message, what Nashville did. This was previously combined with another contract, with other work, and we strategically pulled out work that could be done autonomous from our other contractor so that we could progress forward to contract completion.

Next, this schedule is similar to those we've previously shared with the Users Board. The follow-on contracts and project benefit dates are listed as TBD due to the uncertainty of the lock

chamber contract completion date. Review of the contractor claim continues as government and contractor are working toward the alternative dispute resolution agreement to facilitate discussions to reach resolution.

We are currently updating our total project cost and schedule estimate, which is planned for certification no later than November. That process will provide a clearer picture of when the remaining project scope can be accomplished, and the dollar and days that we see to finish the contract.

It is apparent that the previously reported online date of April 2024 will not be achieved. The new lock is expected to become operational approximately six months after the approach wall and decommissioning contractor gains access to the cofferdam work area, which will be upon completion of the lock chamber contract. The AWD (approach wall and decommissioning) contract is anticipated to have approximately a two-year duration. So as soon as we can get the current contractor out, we will have awarded the follow-on contract. Six months after that, we can hit an online date for this project. So, the follow-on contract does not have to be finished for this to be operational. So, the key milestone is finishing up the current lock chamber contract, and succinctly awarding the follow-on contract to marry up with the end date of that, to give them access, and then six months from then we should have the operational date.

CHAIRMAN MURPHY: Spencer Murphy. I wouldn't hold you to a date, but running that math out, what is the earliest possible date after April 2024 that all those things could fall into place?

MS. HALL: So, you're asking for an operational date?

CHAIRMAN MURPHY: Yes.

MS. HALL: Okay. Not a finish?

CHAIRMAN MURPHY: Correct. Operational.

MS. HALL: So, if we added six months to the finish of the current contract, I would say our estimate, if at the current progress that they're making, at that around 6,000 something, not the 8,000 cubic yards per month, we think that it's highly probable they can finish in 2025. So, six months to that is what I think would be a good planning conversation.

CHAIRMAN MURPHY: Okay. And, again, I'm not going to hold you to it, but just for discussion purposes, for planning purposes, operational second half of 2025 would be the opening of that window?

MS. HALL: Yes. Possibly into early 2026.

CHAIRMAN MURPHY: Thank you.

MS. HALL: Okay. In a change to this funding slide from the prior Users Board meeting, it is shown in the breakout of funding types allocated to the project over the years, the project was not

identified to receive any allocation in FY22. However, it was included in the FY23 President's budget for \$39.3 million, which matches the estimated remaining total project cost estimate shown in the table that is based on the most recent total project cost and schedule update certified in June of 2020. So, again, we are in the process of doing an update on that now. We plan to have that total cost and schedule estimate ready by the end of October, certified early November.

GENERAL GRAHAM: What are the risks?

MS. HALL: I'm sorry, sir. The big risks to this are the claim outstanding. We are doing ADR (Alternate Dispute Resolution). And so that is one risk. And we have done everything we can to allow follow-on contracts to be awarded and worked, and we will continue to work that. We partner heavily with the current lock chamber contractor as well. We are in ADR, but we talk to them regularly. We will work with them and finish this project. We are working to find opportunities to expedite and to assist.

But, yes, the biggest risk right now to cost and schedule is the ADR resolution, and I provided earlier what that in days and dollars right now we think the risk is.

MR. JUDD: Stephanie, Damon Judd, Marquette. Question on the ADR process. You may not be able to share this, but do you have protection, from a bonding standpoint to the extent that doesn't go well, and, if so, can you maybe comment on what the magnitude of that may be, as we think about the \$96 million of exposure?

MS. HALL: To the extent of what I think the exposure is at this point, the numbers I can provide you are the numbers the contractor has asked for. And so right now I would say that is our exposure. The ADR process is non-binding, so we will either find a mutual resolution that we will agree to, or it will go back as a formal claim, and it will work its way through the formal claims court system.

MR. JUDD: So, when is that?

MS. HALL: It's already a claim, sir, so it would work through the Contracts Board, and so it would become -- it's already a certified claim. A certified claim has progressed to where the contractor and the government -- the contractor asks that we go consider ADR. We work that, go into ADR. That ADR we think will take place in February. It is nonbinding, so the expectation is we can either find a way to resolve it in a way that works for the contractor and the government, if either party chooses not to have it binding, like chooses not to agree, then it will go back to being a certified claim, and it will work through that process. That process, my understanding, takes years to work through the court system.

MR. JUDD: Right. It's currently in voluntary mediation before you get to formal litigation.

MS. HALL: Yeah.

GENERAL GRAHAM: On bonding, we put two types of bonds on all these, a performance bond and a payment bond. Performance bond, if they build it and it doesn't perform well, they

build it poorly, then we can go to the bonding company and they will pay to build it right. The payment bond is similar to a mechanic's lien on your house. That is, if the prime doesn't pay the subcontractors, that bonding insurance will ensure that the subcontractors get paid if the prime runs off with some of the money. Those are the two bonds that we have on it.

MR. JUDD: That's helpful. I was wondering if there was a completion bond, effectively, is what I was trying to get at.

GENERAL GRAHAM: Well, if they screw it up, yes, but it's more than that.

MR. JUDD: Got it. Thank you.

MS. HALL: So, we also, in response to the bond question as well, each time there's a modification on the contract, the bonding companies have to provide assurance that they cover that new amount. So, to add confidence to that as well, even the smaller mods, if it changes the amount of the contract, the bonding company confirms that they are still bonded to that amount. So, we are in a solid position with the contractor and the bonding agent. Okay. Any follow-on questions to this?

MR. POINTON: Any other questions for Stephanie?

MS. HALL: All right.

GENERAL GRAHAM: So, by the end of the calendar year, we'll have a better feel for exposure with the contractor, plus costs, is that needed to update the cost estimate?

MS. HALL: Yes. So, as we work that total project cost estimate that we are working now, they know that we're going into ADR, they know what the contractor has asked for. That will go into our risk calculation. So, when we provide that total project cost and schedule estimate to everybody in probably early November, it will take this into account, without it having been finished. And we're working hard to ensure that we aren't overly conservative or overly optimistic in how we look at that risk.

Okay. So, project issues and challenges. I think we've covered Number 2. That's the ADR.

Again, geologic conditions in the approach walls foundations. We are now working in that area, and any subsurface changes, of course, adds opportunity for changes. And then the top one is working closely with this contractor to ensure that we enable the best production that they can accomplish. It's been very helpful and promising that they've really increased their production rates in 2022, and we're working hard to work with them to ensure that continues.

All right. Thank you.

GENERAL GRAHAM: Spencer, what I'd like to propose is, we initially had scheduled the public comment period to begin now. We've had some great discussions I think going on today, but to be mindful and respectful of the folks that have joined us, that we deviate from getting

through the rest of the projects. We can always add them to the end. Steve Fritz won't go anywhere. And we can certainly talk about the future activities. But unless you have any objections, I'd like to go and be mindful of our guests and start the public comment period.

MR. POINTON: Thank you, sir. Thanks, Spencer. So, we're going to delay doing the Lower Mon from Steve Fritz and the Inner Harbor Navigation Canal Lock and Bayou Sorrel until after the public comment period.

So, starting with the public comment period, we do have seven people that have requested to make a verbal comment, so we'll go ahead and start. I'm going to do it chronologically from when they requested, so I'm going to start off with Heather Stebbings from the Pacific Northwest Waterways Association (PNWA). Heather, would you please take the mic?

MS. HEATHER STEBBINGS: Thanks, Mark. Chairman Murphy, Ms. Brown, General Graham, Board members, thank you so much for allowing us to provide public comment today.

I'm Heather Stebbings with the Pacific Northwest Waterways Association, or PNWA, and we are a regional trade group representing about 150 members in Oregon, Washington, and Idaho. We are a lot of ports, shippers, all the grain growers in Oregon, Washington, and Idaho. We have tugboat operators, river pilots, bar pilots. Essentially everybody that cares deeply about funding for the Corps of Engineers and making sure that we can move cargo in and out of the northwest efficiently and safely.

I provided written comments that were in your packets. I do just want to provide a couple of remarks today, the first of which is to say a big thank you for bringing the Board here to the Northwest and for highlighting the value of the Columbia-Snake River system. As you've heard a little bit from Rob (Rich) earlier, these projects provide great value to our region and nation. They are critical for hydropower, barging, irrigation, recreation, and they also have state-of-the-art fish passage.

So, the Corps of Engineers has invested millions of dollars in making sure that these projects are as transparent as possible. To our fish, we're seeing upwards of 96, 97, 98 percent survival for our juvenile fish passing through the projects out to the open ocean, and this year we're seeing some record adult returns, which is very, very great news.

Still, however, as you know, there have been calls to breach the four lower Snake River dams, and that would be truly catastrophic for our region out here. Chairman Murphy noted on the transportation side that in 2020 we saw 4.2 million tons of cargo moving through the Snake River. That included 10 percent of our U.S. wheat exports. He did the conversion which was showing what it would take in terms of rail and truck, so over 42,000 rail cars, yeah, 42,000 rail cars, or 160,000 semi-trucks that would be moving through our communities out here in the Northwest. We'd see safety impacts, and we'd also see a significant amount of emissions impacts.

So, when you do that shift of transportation modes, we'd see an additional five million gallons of diesel each year that would be consumed, bringing with it about 1.2 million tons of CO2 and

other harmful emissions. So, a significant impact in terms of climate that we'd see from shifting modes of transportation.

Breaching the dams would also exacerbate a lot of the issues that our farmers are already seeing, so uncertainties, increased cost. We'd see 1,100 farms that could potentially be bankrupt. They would go out of business if the dams were breached. And that's, of course, the farms themselves, it's farm workers, it's the folks that provide all the inputs like seeds and fertilizer to those farms. The ripples of the effects of dam breaching to our farming community would certainly ripple throughout our region and likely the nation. I also want to touch on that we are not just wheat. So, wheat is certainly king out here in the northwest. We're the largest wheat export gateway in the nation, on the Columbia-Snake River system, but the Snake River does provide a significant amount of irrigation as well. So out of the Ice Harbor Pool, 55,000 acres of irrigated farmland receive their water.

And so, if you eliminate Ice Harbor Dam, you eliminate the Snake River dams, you essentially eliminate the ability to produce food on those acres, and that is -- I heard the numbers the other day, and I think they're pretty staggering. Those 55,000 acres produce enough apples to feed 18 million people, they produce enough sweet corn to feed 19 million people, and enough potatoes to feed six and a half million people. And that's just those three commodities, and there are many more. So, a huge impact when we think about food security to our region and nation, and even globally.

The final thing I'll touch on, I know you're going to hear from some other folks on this in just a few minutes, but the final thing I'll touch on is the hydropower that's produced. And it cannot be understated the value of the clean, renewable, affordable hydropower that we have out here in the northwest. It, of course, provides a huge amount of power for our region. But I think there's a notion that it can just simply be replaced by other renewable energy production like wind or solar, and that's just not the case. The hydropower that the dams provide provides that base load capacity. So, when the wind is not blowing, when the sun is not shining, it really provides the ability for us to meet the needs of our electrical grid. And as all of you know, we're really truly trying to electrify everything these days to make sure that we can meet our climate goals. And the Snake River dams are a backbone of us being able to do that out here in the region.

So, with that, you have written comments from me, and we're always happy to provide further information if you need it, but I want to say again how truly appreciative we are of you coming out here and taking some time to learn more about our projects.

MR. POINTON: To reiterate what Heather said, PNWA did submit a written statement, so that will be included in the official record of the meeting.

Next up is the Port of Clarkston. I believe Jay Bacchus is going to give comments. If not, Chris Rasmussen. I have both names, so I'm not sure who is the stuckee.

MR. CHRIS RASMUSSEN: So, I scripted this to stay within the three minutes, so I'm just going to read it here for you. So, my name is Chris Rasmussen, the Executive Director at the Port of Clarkston. The Port of Clarkston is the second largest inland seaport on the Columbia-Snake

River system, located at River Mile 137.8 of the Snake River. I'm going to talk mostly about the value of the Snake River locks and dams. The Port of Clarkston will keep its comments to commercial navigation since that is one of the IWUB's areas of greatest interest.

Commercial navigation activities bring value and economic prosperity to the river communities, the region and the nation, without creating significant demands for new infrastructure. This is a time with greater focus on carbon emissions, climate impacts and sustainability. River navigation in the Pacific Northwest offers the greatest benefits -- excuse me, being more efficient, cleaner, safer, reliable, and more responsive to customer needs. Millions of tons of commodities are moved through the lower Snake River dams. Ninety percent of the grain produced in southern Washington, northern Idaho, and eastern Oregon is transported via barge. Washington is the fourth largest wheat-producing and wheat-exporting state in the nation. Whitman County has been the nation's top wheat producing county since 1978. Is that still true, Tom?

MR. TOM KAMMERZELL (from the audience): Yes. That is still true.

MR. RASMUSSEN: Though wheat is the primary commodity passing through the four dams, other products transported via barge include sawdust, wood chips, fertilizer and fertilizer components. Additionally, significant -- excuse me, although wheat is not the primary commodity passing through the four dams -- Sorry. Additionally, significant barge traffic is moving project cargo, which can be lumped under the high, wide and heavy category. These unwieldy, overlarge items can range from electrical transformers to scrubbers, oil refineries and wind blades and wind turbines. They are often too long, too tall, too wide and too heavy to fit safely on other modes of transportation. The Snake River's navigation channel is particularly well suited for managing these unique shipments, because there are no overpasses to manage going east, north, or south from the Lewis-Clark valley. Keeping the high, wide and heavy corridor available for future use, to maintain and develop inland infrastructure is a wise and thoughtful investment.

Commercial cruise line passenger counts through the Columbia-Snake River system to the Lewis-Clark valley at the upper end of the navigation channel increased by roughly 500 percent between 2011 and 2022. With growth and itinerary changes, the cruise industry contributions to just the Lewis-Clark valley are expected to reach 6 million in 2022, and approximately 29,000 passengers will visit the valley.

Barging commodities and river cruising both require a safe and efficient federal waterway and a set of working locks for every dam to facilitate transportation. Without river navigation, these activities are no longer possible. Given the transportation advantages and economic impacts relating to commercial navigation described, the Port of Clarkston respectfully requests the Inland Waterways Users Board to recommend rehabilitation and maintenance to the four lower Snake River dams and locks. Thank you.

MR. POINTON: Thank you, sir. Right on target. Next up is the McGregor Group. Leslie Druffel, who is their outreach coordinator. Leslie.

MS. LESLIE DRUFFEL: Go Whitman County wheat. Starting harvest today. I'm so glad you guys are out here in the Pacific Northwest, inland northwest. My name is Leslie Druffel. I'm part of a small family wheat farm in eastern Washington, about two hours away from here, northeast. I'm a long-term employee of the McGregor Company, an independent ag retailer that supplies inland northwest farms with the inputs needed to grow the premium dryland and irrigated crops this region is known for.

The farm families and the businesses that support them rely on the lower Snake River locks and dams for moving crop inputs upriver, transporting our wheat downriver, and irrigating thousands of acres of crops highly valued by consumers across our nation and beyond. International demand for food produced in this region continues to climb, putting greater reliance on the barge system each year as it is the only infrastructure reliable -- built that can handle the enormous volumes of commodities that are destined to millers and export buyers at the mouth of the Columbia River.

Several years ago, the McGregor Company built a 44,000-ton fertilizer river terminal at the Port of Wilma, in large part because we could no longer meet the seasonal demand by relying on rail shipments exclusively. This was the largest capital investment in our 140 years in business.

Timeliness of supplying crop nutrients to family farms when they need it is vital to growing dryland crops in the inland northwest. Farmers rely on fertilizing at seeding time in the spring and fall. Any delay in seeding due to fertilizer sourcing negatively impacts yield potential and farm profitability. Farm profitability is not an oxymoron, although it kind of sounds that way.

So, what does timeliness mean? The McGregor Company, we have five weeks to move over 4½ million gallons of liquid fertilizer that will cover more than a million dryland acres. Fall seeding will begin any day, if not already, for these dryland farmers, and Mother Nature provides a very narrow as well as a moving target in which to fertilize and seed before the rains arrive and force us out of the field. If you think harvesting wheat off of a 30 or 40-degree slope is nerve-racking, driving a fertilizer applicator or a seed drill along those after rain is a thrill that few will ever repeat. It's a seasonal issue all year long.

The logistics of getting the right nutrients to the farms across the region when they're needed is no simple task. Even with two fertilizer river terminals on the Snake River, it takes the combined resources of barge, rail, and truck to get product to the farm. Our terminals at Port of Wilma and Port of Central Ferry operate at peak capacity ahead of and during fall and spring fertilizer seasons. Upriver barge shipments of fertilizer for the McGregor Company account for more than 7 million gallons of liquid nitrogen each year.

Barges are the heavyweight champs. Ninety percent of the Washington and Oregon wheat and 50 percent of Idaho wheat is exported. Seventy-five percent of all garbanzos, 70 percent of the lentils grown in the inland northwest are also exported.

The four Snake River dams are the river transportation link to the Columbia River, uniquely positioned to serve trans-Pacific markets. Yes, rail does carry some of the load of commodities heading to these international markets and delivering a large amount of our fertilizer supplies.

Rail helps keep the equilibrium of competitive freight rates, but it lacks the reliability and timeliness that our barge operators consistently provide. Class 1 railroads are currently in STB's detention. That's the Surface Transportation Board. I'll still buy everybody coffee. They're still in STB detention for poor customer service. Our short-line rail continues to be undervalued by their Class 1 siblings, they're chronically underfunded, yet still an important part of this whole system. As Board members of IWUB -- which some of my colleagues didn't know what that was, I told them you were kind of the liquid version of the STB -- I encourage you to speak loudly about the importance of your inland waterway found in the upper left section of the United States map. Listen intently to your shippers and to those in agriculture about how we use it and why we use it. Thank you.

MR. POINTON: Thank you. Going on to the next on the list, it is the Port of Lewiston. David Doeringsfeld.

MR. DAVID DOERINGSFELD: Mr. Chairman, Board members, my name is David Doeringsfeld. After 28 years, I'm the soon-to-be retired General Manager of the Port of Lewiston, and I'd like to thank you very much for coming to our back yard. We appreciate your service and efforts to enhance the U.S. inland waterways.

There are 99 ports in the Pacific Northwest. There's 75 in Washington state, 23 in Oregon, and us in the state of Idaho. The Port of Lewiston is the most inland seaport on the west coast, 465 miles from the mouth of the Columbia River. We are primarily an export port, but imports of oversized cargoes that are mainly destined to the interior of the US and cruise ship visitations are growing steadily. The Columbia-Snake River system is unique. Eastern Washington and north central Idaho have some of the highest wheat production in the U.S. As mentioned earlier, 10 percent of U.S. wheat exports travel on the Snake River.

As one of my farming friends likes to point out, you can be harvesting wheat on Monday in the Lewiston area and by Saturday that wheat is on an oceangoing vessel headed out to sea. The projects you support and are then implemented by our friends in the Corps of Engineers allow this system to function efficiently and effectively.

We also have some unique challenges. Salmon and steelhead runs on the Columbia and Snake River are threatened and/or endangered. Some people point to the dams on the Columbia and Snake Rivers as the main cause of fish decline -- a decline in fish runs. The problem with this myopic view is that fish runs are in decline all along the west coast, from California to Alaska. Deteriorating ocean conditions due to climate change is the primary culprit. Residents of the Pacific Northwest are committed to restoring abundant fish runs. We will accomplish this restoration through the implementation of sound scientific measures that impact fish throughout their life cycle.

We appreciate the Board's support of the Columbia-Snake River system, and we welcome you back any time. Thank you.

MR. POINTON: Thank you, David. Next up is the Washington Association of Wheat Growers, Ms. Michelle Hennings.

MS. MICHELLE HENNINGS: Good afternoon. I think they took all my talking points. I'm the Executive Director of the Washington Association of Wheat Growers, and I'm a wheat farmer myself. So, I'm kind of speaking on behalf of both. I'm going to try not to repeat everything they said, but 90 percent of our wheat goes overseas, and we have these customers overseas that we've built these relationships with, and we've been reliable with them, and if we lose that reliability, taking out one of our transportation modes, we could lose our customers. We feed the world, so: safe and reliable food security. And this is how we accomplish that. And we have three modes of transportation: truck, rail, and barge system. We need all three. That's how big we are.

But the barge system helps us be reliable because we do have little issues with rail. We're a low-value crop compared to some of the commodities or other products that they actually rail on the railroad, and so we're not really a top priority for them to get the right train cars at the right time, and then, hence, we can't get our product to market when we said we're going to. That's a big problem for us.

So, I wanted to point that out, that reliability and competition is very important, because we have other competitors in the world, in Europe, South America and other places, and they'll start being more competitive if we can't offer the right price for our grain, and then we'll have troubles. We have these farmers that rely on their wheat crops to make a living for their family farms, and if we remove that from them, it will be devastating.

Right now, we have a competition with rates for transportation with rail, truck, and barge. If you remove the barging system from that, rail rates and truck rates are going to go through the roof, because we're losing that competition factor there to keep farmers' costs lower.

Right now, fertilizer, fuel, everything you can imagine has gone through the roof. Yeah, our wheat price was up about a month ago, it was pretty amazing what it was at, but it's leveling down now again. Our input costs aren't. So, what's that going to do to the farmers' bottom line, if we just keep on raising these costs and raising these costs? It's not going to be good for our farmers.

And we need to protect our farmers, because we feed the world, and domestically. I mean, we don't do as much domestically in the Pacific Northwest because our wheat is specialized for what the Japanese and the Philippines use for food. I've actually had a chance to go over to the Philippines, and it was amazing to see what we were providing those people. So that was amazing to me.

I just want to let you know how important this infrastructure is to our commodity. There are countries that look at our system and are envious. They want the system we have. Farmers are good stewards of the land, and they also want to be able to work together to provide solutions with the system in place for salmon recovery, ecological concerns there may be. We want to work together with funding to help with that. The dams and people and salmon can co-exist. That's what I got. Thank you for letting me get up and speak.

MR. POINTON: Thank you, Michelle. Thank you. Appreciate your comments. Next up is Steve Shaver, who is the President and Board Chairman of Shaver Transportation.

MR. STEVE SHAVER: Good afternoon, everyone. Thanks for the opportunity to get to speak a little bit. As you mentioned, I'm the President of Shaver Transportation. I've been working there since I got out of high school back in 1975. So, I've seen a lot of different things about our river system over the years. Our company was founded back in 1880, so we've kind of been out here in the Pacific Northwest for a long time and seen all the changes.

A little history from our company. Back in the '30s, we were asked by the farm community to get involved in the transportation on the river of hauling wheat. The reason being is they had the trucks and they had the rail, and they weren't happy with the pricing, so during that time we got together with some investors. One was Consolidated Freightways, a trucking company, and then another person, and we formed a company which back in the days was called Tidewater Shaver, which is kind of odd now, because now there's Tidewater, there are a separate company, and us, so we kind of, like, back in the day, kind of created a monster, our big competitor. So, we were in the upper river back before Bonneville was there with our paddle wheelers, and there was a lot of chutes that would come down the side of the river up there, and they'd take bagged grain and they'd chute it down to these little docks and these landings, and we'd pick it up on the paddle wheelers back in the day. And then after we started this company, we started pushing barges with those, and you can probably go back in history and see a bunch of pictures. And as time went on, we started building tugs and better barges.

And so, from the beginning, we've kind of started out with this system that's now, you know, what it is now, and along with the Corps of Engineers, we've become part of this big thing. It's been a very well thought-out system, and Rob touched on a whole bunch of different things about it, and when they put the dams in, you look at everything from the hydropower to the fish passage and everything, everybody really, really thought this whole system out. It's not something that we all threw together not thinking about every single facet. And so, we have what we have today, and it's probably the best system around that you could possibly have.

And like the other thing that Rob said, if you were going to build something, this is what you'd want to build, or something pretty close to it. Maybe a few tweaks here and there. And then a little bit further on, one thing that we've been doing since the late '70s, we got involved in the juvenile fish transportation project. We were kind of -- I don't know how we got involved, but we had a couple old barges that the Corps converted into some fish barges, and since then they've made a lot better, more efficient ones, but that's been a very successful program since the late '70s to now.

I don't know how many millions of juvenile fish we've transported down the river, but I want to use an example. This year, over Bonneville Dam, the sockeye salmon, as of August 1st, had 650,000 returning this year, which is the highest number of returning sockeye since they've been keeping records. And, granted, it's the second highest amount this year that they've had since they've been keeping records. So, something is working out there, and the idea of taking out the dams with this amount of salmon returning, with the dams in place, it's just crazy to me.

And one thing, I wanted to thank the Corps. We've worked with them for years. They're a wonderful organization, both the Portland District and the Walla Walla District. When they tell us something's going to be done, it's almost always done ahead of time. And then somebody earlier had mentioned MARAD. I wanted to thank, if there was someone here from MARAD, we were one of the two Oregon companies that received a grant this year, and we really appreciate that.

Thank you very much.

GENERAL GRAHAM: Yeah, there's another federal agency, putting their money where their mouth is. Way to go, Bill (Paape).

MR. POINTON: Next up is Kristin Meira from the American Cruise Lines. Kristin?

MS. KRISTIN MEIRA: Hi there. I'm Kristin Meira. I'm Director of Government Affairs for American Cruise Lines. And before I tell you a little bit about our operations here on the Columbia and Snake, I just want to say thank you so much to the IWUB for being out here and experiencing our river system. You've been out here a number of times over my 20 plus years of working here in the rivers, and we're really grateful when you come out to see our locks and dams on the Columbia and Snake.

I also want to say a big thank-you to our other federal agencies who are here. MARAD, we have an affiliated shipyard, Chesapeake Ship Building in Salisbury, Maryland. We also got one of those small shipyard grants, so thank you. And to you, USDA, and NOAA, and I'm probably going to miss some others, glad that you're here.

So, we're the largest domestic overnight cruise line in the United States. We have 15 vessels that we operate around the country, from Maine down to Florida, the entire Mississippi River system, all the way to Minnesota, Alaska, Puget Sound, and then of course here on the Columbia and Snake.

Our 15<sup>th</sup> vessel, the Symphony, just completed her sea trial. She'll have her christening in Natchez at the end of the month. If any of you are in that area, let me know. I'll get you an invite to go to that. It should be wonderful. So, of those 15 vessels that we operate around the U.S., we have four vessels, four of them are on the Columbia-Snake River system. Each one is 200 passengers or fewer. So, these are small cruise ships. When we call on a port, we're basically just the right size to deliver wonderful economic developments to a community, but not overwhelm it, or their infrastructure. We operate from Astoria, near the mouth of the Columbia River where it meets the Pacific Ocean, inland all the way to Lewiston and Clarkston. And, again, we have four right now.

Next year we're bringing a fifth vessel to the Columbia and Snake, and we have plans for even more growth. This year I think you had heard from Chris Rasmussen at Port of Clarkston about the -- there's no other way to say it -- the explosive growth of cruise passengers on the Columbia and Snake Rivers. Next year, between my company, and we are the largest here on the

Columbia-Snake, but there are three others, we expect to have 29,000 cruise passengers on these two Rivers. And I can speak for my company, every single cruise is roughly a week-long and operates the entire system. The Snake is absolutely critical to what we do, and we cannot operate in the way that we do without it. Our passengers want to come out and experience the full Columbia-Snake River system. We don't want to stop just on the Columbia River.

I just want to say our strong support for the mission and for the leadership of the Corps of Engineers. We could not be more grateful for the relationship that we have with the Walla Walla District, the Portland District, the Northwestern Division. Steve Shaver hit the nail on the head when he said that when the Corps tells us something, they deliver on time or sometimes even beforehand. The reliability is outstanding on our river system.

Also, the collaboration that we have with the two districts, and then with Northwestern Division, the communication couldn't be better as we plan not just for the current river operations, but what we're doing to look ahead to major maintenance in the future to keep things running smoothly and safely. And for a cruise line moving thousands and thousands and thousands of passengers, safety is key.

So, again, thank you so much for what you do. We're so glad that you're here, and we look forward to more in the future. Thanks.

MR. POINTON: Thank you, Kristin. We had one last-minute that I'm going to add on for a verbal comment. Is Ms. Jennifer Riddle of Tidewater in the room? No worries.

MS. JENNIFER RIDDLE: Hi, everyone, I'm Jennifer Riddle with Tidewater. I'm their Corporate Communications and Marketing Manager. Thank you so much for being here. I grew up in La Grande, Oregon, so this is my stomping ground, and I just love having everybody come out and check it out. The beauty of this area is phenomenal. I wanted to kind of touch upon, we did submit a comment letter and we have a lot of good information in there, but I really wanted to talk about a couple different things.

We talked about grain and how important grain movement is on the Snake River system, and how it makes our -- the Columbia-Snake River system the number one gateway export for grain in the nation, and Number Three in the entire world. But what people don't think about are some of the other commodities. They were touched upon by Michelle and Leslie.

We move UAN 32 fertilizer up to the agriculture communities in the area. We also move wood chips to Clearwater Paper, again, in Lewiston, Idaho. And on top of that, this is the big one, is that we actually move a lot of fuel. We are essentially the Cascade Pipeline from -- I'm going to probably get this wrong -- but it's the PADD (Petroleum Administration for Defense District) 4 and PADD 5. So PADD 5 is considered West Coast District and PADD 4 is the Rocky Mountain District for petroleum and diesel. And we are that eastern arm of the Olympic Pipeline. So, we bring our barges, our double-hulled barges -- for decades we've been doing this -- upriver to our Pasco terminal. Our Pasco terminal is located on the Snake River. It is right at the foot of Ice Harbor Dam.

When we go tomorrow, I will point out our terminal. It is one of the larger terminals that actually has a pipeline, rail terminal. It's multimodal, essentially. We bring in product, diesel, and petroleum, off of the Olympic Pipeline from Portland into this region, this inland empire, which is the size -- actually, it's bigger than the size of Great Britain, just imagine that, to all the consumers, the agricultural communities, to the railroad. We service BNSF (Burlington Northern Santa Fe) and UP (Union Pacific), the farmers, the aerospace, the Fairchild Air Force base. We provide volumes up there as well as to Chevron for firefighting. This Cascade Pipeline is imperative, and if we remove the Snake River dams, we have no guarantee that that McNary Pool is going to be navigable. I'd probably say it's pretty unlikely.

And I say that because we know, from the confluence of the Clearwater and the Snake River, right there, we all know -- the Army Corps knows, especially in the Walla Walla District -- how hard it is to keep that dredged from sedimentation. Now we are talking about breaching four lower Snake River dams that have had years and years of sedimentation behind it, hundreds of millions of cubic yards of sedimentation coming through, landing in the McNary Pool, right at the confluence of the Snake and the Columbia, right where our terminal is, right where our Umatilla terminal is. We're not going to be able to navigate that. We're not going to be able to bring barges into that area. It's just going to cut off this entire region from their petroleum and diesel volumes. I don't really know much more to say. I wanted to make sure I made that point. I have a lot more information in the letter.

Thank you again so much for being here. If you have any questions, I'll be at the reception. Thank you.

MR. POINTON: Thank you, Jennifer. A little different perspective from some of the other public comments that we heard. All right. We're going to move on. I know we want to get to the IHNC Lock and the Bayou Sorrel. So, Steve, I'm going to ask you to step to the mic to cover the Mon River 2-3-4 in an expeditious fashion, sir.

MR. FRITZ: Depends on Marty's questions.

MR. POINTON: I'm going to ask the sound guy to cut Marty's mic off. No, I'm just kidding.

MR. FRITZ: All right. So, listening to all those public comments, and it's probably not my place to say it, but I think there should be an infomercial about the Inland Waterways System that identifies all those benefits that, like, my mother-in-law doesn't know about. Well, thank you again for letting me brief on a project here with the Pittsburgh District. This is the Lower Mon project. Most of you are familiar with it. If you're not, I can give you more of a scope.

You can go to the next slide, please? Okay, as to the Lower Mon, like the Upper Ohio, it's a condition-driven project. It's a two-for-three replacement. We replaced the fixed-crest dam at Braddock. We put in a new dam there, a gated dam. We're building a new lock up at Charleroi. It's authorized for two. We're currently building the first one. And we're going to remove Lock and Dam Number 3. So that's the scope in a nutshell. If anybody wants more, you can ask a question, or I can move on.

So, the work that's been done in FY22, we've completed two major work efforts. In March of this year, we finished the Pool 3 navigation dredging. So, part of our project, we'll remove Lock and Dam Number 3. The pool lowers. And when we do that in 2024, the pool's gonna lower, and that didn't give enough draft for boats to be pushing their barges up and down the river. So, we've completed that in-river channel dredging right now, and we're going to continue to monitor that. The Mon River itself is pretty stable. We're not too worried about it silting in. Because we completed the dredging prior to the pool changes, we're just going keep an eye on that. And we came in about probably \$40 million under where we thought that would be when we did an estimate back in 2014. So that was pretty good.

The other thing that we're working on is the stilling basin at Charleroi. So, because we're lowering the pool downstream of Charleroi, we extended that stilling basin, and that work is substantially complete. The contractor is just finalizing some surveys right now. But that work was done about four months ahead of schedule, three or four months ahead of schedule, so that's good news.

Moving to the next slide, the continuing work out there at Charleroi, that contractor is making extremely good progress. I'll point to some stuff here on the screen, the screen on the right. So, the picture on the right-hand side here, this is standing at the upstream end of the dewatered lock chamber. You can see there's work going on right here in front of us. That's for the bulkhead sill.

And the work right down here, that's for the filling and emptying and the miter gate sill. So, all this work is happening inside the chamber.

There's also work going on to build the filling and emptying culverts that are in there. All the alluvium has been removed from the chamber, and they're continuing to make excellent progress there.

On the left-hand side, that's a close-up picture of what that filling -- that filling sill looks like on this particular end. So, this is one-half of that sill.

There's going to be another half built to the left of that, to match that. It will be kind of a mirror image of that.

Next, I didn't mention on the last one that we're putting wall facings on the inside there as well. So, we got the culverts going on inside, we have the bulkhead and the miter gate and the filling sill, and we have wall faces going on the inside of the lock chamber.

This is kind of the, it's not really a money slide, but it's what you all want to hear about. Our project benefits date is back at June 2024. The last Users Board meeting reported that that was going to be in August of 2024. And I also said that it could be July because we were kind of in a transition between when the slides were due to you, but we pulled it back even further.

The contractor has brought on extra crews, and they're working, so we're trying to bring that back even into the May time frame. I don't know if we'll get there, but we're looking for that. Don't hold me to that, but I'm 50 percent confident we can do better than the 23 June 2024.

There remains a significant amount of work ongoing inside the chamber. That's the wall facings, the filling and emptying culverts, and the miter and bulkhead sills. The Charleroi Dam stilling basin, like I said, is substantially complete, and right now we're working on completing the plans and specs for removal of Lock and Dam Number 3.

The timing of Lock and Dam Number 3 is very much tied to when we complete that chamber at Charleroi. There's a lot of factors that kind of tie into that. If we complete the chamber at Charleroi in a high-water season, that makes it less likely that we're going to be able to remove Lock and Dam Number 3 in that same high-water season. So, we're tying those things together very closely and we're watching those.

We have some mitigation measures that we can take that might save a month or two, so we can maybe pull it back into that time frame where we hit that sweet spot, if you will. So, we're looking at that. We're continuing to watch that, and we'll pull the trigger on those mitigation measures as soon as we realize that we need to. We are tracking probably about six additional actions left for the Lower Mon project. Marty, you have a question?

MR. HETTEL: Steve, I wasn't going to ask you a question, but you woke my interest here. Removal of Lock and Dam Number 3, once Charleroi is operational, you'll remove the dam first, I assume, so that we can transit, and the lock secondary?

MR. FRITZ: That's correct.

MR. HETTEL: Right. So, it's the dam removal you need to coordinate with the completion of Charleroi, not necessarily the lock and dam removal?

MR. FRITZ: That's correct, you're absolutely correct.

MR. HETTEL: Thank you.

MR. FRITZ: Yeah. And we actually have a meeting scheduled -- well, in the next month or two we are going to schedule a meeting with the navigation industry in our region to make sure that they are well aware of what we're doing out there, what our plans are, and let them know how we expect that they're going to operate during that removal of the dam, because that's going to create some unique flow conditions, and we want to make sure that they're able to navigate that. We don't know everything. That's why we're calling on the industry for help there. If there's no questions here, we can move on to the next slide, cost and funding overview.

All right. Something that was said at the right-hand slide here at the beginning, so right here it shows that we have received about \$1.1 billion. If you look up here, it shows that the total project cost estimate -- now, this is all the way back from 2014 -- we said it was going to be \$1.23 billion. We've only been allocated \$1.1 billion. Back in 2019, when we were asked about completion funding, we thought that \$111 million would get us out of the project. I'm not so certain that we're going to get out of the project for using that \$111 million that brought us up to

the 1.1 billion, so we're currently working on an estimate right now to figure out how much we need.

We are definitely going to be 100 percent below the 902 Limit, and we're also going to be below -- it's my anticipation we're going to be below that baseline estimate. So, I don't think we're going to bust either of those, but we do have to come back and ask for additional funds, or highly likely that we'll do that.

I don't have anything else on this slide unless there's questions.

GENERAL GRAHAM: Steve, when will you know?

MR. FRITZ: This certified cost estimate will come in after the Upper Ohio estimate, so I'm anticipating late winter, early spring of 2023. And I don't want to throw, you know, numbers out there, but I estimate maybe it's \$30 to \$50 million in addition. But that still keeps us, you know, \$50 or \$70 million below that baseline estimate from 2014.

GENERAL GRAHAM: So, we just sent FY24 to Ms. Brown.

MR. FRITZ: I'm sorry, say that again?

GENERAL GRAHAM: We just sent FY24 over to Ms. Brown.

MR. FRITZ: Yes.

GENERAL GRAHAM: So, what year money are you going to need?

MR. FRITZ: We're going to need the money in FY24.

GENERAL GRAHAM: We just banked FY24.

MR. FRITZ: I'm sorry?

GENERAL GRAHAM: We just sent FY24 to Ms. Brown.

MR. FRITZ: Oh, this would be out of the work plan, sir. It would have to be a work plan request and not a budgeted amount. Or are you saying the work plan request?

GENERAL GRAHAM: No, base budget is what we just sent.

MR. FRITZ: Yeah, yeah. So, for the budget, it isn't budgetable anyhow, so it wouldn't make the President's budget. We would have to request funds through the work plan, regardless.

GENERAL GRAHAM: Okay.

MR. FRITZ: And then talking with our counterparts at the LRD, they believe if we get our certified estimate done in the spring, by spring of next year, we can include a work plan request for FY24.

GENERAL GRAHAM: Stacey, it's a timing match.

MS. BROWN: Yeah, I think the timing match is, I mean, you know, the risk there, though, is now that earmarks are back, the funding pots are getting smaller. So that's where other people should maybe let people in Congress know that money is needed, so maybe they could, I don't know, earmark it, and it wouldn't come out of the funding pot.

MR. FRITZ: Thank you. All right, I'll move on, but thank you, sir. Thanks Stacey.

Okay, next this is issues and challenges already. I already talked to you a little bit about the timing of removal of Lock and Dam Number 3. High water events, working in a river environment, that's always the case. There's a chance for high water impacts. At Charleroi, we've been extremely lucky so far. We've had water up to within maybe a foot or six inches of going over that dewatered chamber out there, and the contractor -- you know, when the water gets so high, the contractor, he demobilizes all his equipment out of the chamber. And they don't get paid for that, but they lose probably three days of time, you know. They lose a day when they're taking it out, they lose a day while they're waiting for the river to come down, and they lose a day while they're putting equipment back in the hole. Now, if it does happen to get up there and it floods the chamber, they still have to demob, they still have to remob, but now they got to dewater the chamber again. Then they got to get out all the debris that's in there. And then when those floodwaters occur, there's a chance that there's damage inside the chamber that has to be fixed. You know, things that we just built may have to be fixed again. So, we kind of factor that into our contract already. We know that there could be a cost associated with that. The timing depends on the river.

Market uncertainty, we've talked a lot already, with all the projects, about market uncertainty. I mentioned that I think we need a little bit more money to finish the project. We don't need the money to get to the benefits of the project, we need the money to wrap up the project. So, 90 percent of the project benefits are over, 90 percent of the project benefits with the money we have in our pocket right now. We still have to finish the project. We have to close the land chamber at Charleroi so that's it's usable, so it's not a safety hazard for anybody. So that's the big elephant in the room for that one. And those prices associated with that, those things we need to sharpen our pencils on, come later this year and early next year. And then the competition for resources, whether it be materials or labor, skilled labor, unskilled labor, those are the big things that we worry about.

I think, with that, that's all I have on Lower Mon, unless somebody has any questions.

MR. POINTON: Okay. Any other questions for Steve? No?

All right, all right, all right. We're doing a quick hand-off here with the laser pointer, so we have Brad Inman from New Orleans District, is going to give us an update on the Inner Harbor Navigation Canal Lock and Bayou Sorrel Lock. Brad, go for it.

MR. BRAD INMAN: Thank you, Mark. Good afternoon. My name is Brad Inman. I'm the Branch Chief for Projects and Restoration in the New Orleans office. I know many of you were able to attend the April meetings that we had at the last IWUB meeting, and we actually did a tour of both the IHNC, or the Inner Harbor Navigation Canal Lock, and also went to Bayou Sorrel, and I think we tried to lay out a good overview at both visits on why these locks are needed to be replaced and need to be updated.

First slide here, we're going to be talking about IHNC, the Inner Harbor Navigation Canal Lock. When it was first built, it was actually a waterway from the Mississippi River to Lake Pontchartrain. At that point in time, the Gulf Intracoastal Canal or, I'm sorry, the Gulf Intracoastal Waterway system had not been constructed yet, so it was in the '40s when that was actually built, and it connected this lock to both Lake Pontchartrain and to the waterway. So, it really is essentially a stoplight between the first and third busiest waterways in the country, between the Mississippi River and the GIWW.

The goal here is to replace the existing lock with a new lock, being 900 feet long and 110 feet wide. Twenty-two feet deep is shallow. Originally, the Port of New Orleans had wanted a deep draft lock, but that changed after Hurricane Katrina and the Mississippi River Gulf Outlet (MRGO) was closed. With that new lock, we'll be able to accommodate more barges, obviously.

The new lock will be right here. There's a bridge up here called the Florida Avenue Bridge. This is the Claiborne Avenue Bridge, and this is the St. Claude Avenue Bridge. The existing lock is right here.

The St. Claude Bridge is actually part of that lock. So, the bridge is 100 years old, along with the lock itself. When that bridge was built, it was built for a streetcar and for mostly horse and wagons at the time. So, to say this is outdated -- The port actually still owns that, and they've got to spend tens of millions updating that in the near future.

Also, looking at the surrounding flood wall, this yellow depicts where we've got to upgrade the flood walls. That is one of the complaints of the local communities, that we'll be letting Mississippi River in deeper into this channel between these areas, the 9<sup>th</sup> Ward, Holy Cross, 7<sup>th</sup> Ward, areas that certainly have environmental justice issues and problems we have to deal with.

So, our emphasis has been on reaching out to the communities in outreach efforts, working on a CIMP, or the Community Impact Mitigation Plan, and the TMP, the Transportation Mitigation Plan. General Graham actually challenged us, and in particular Colonel Murphy, to reach out to some of these folks and what's going to change with these communities. And so, we've kind of got a gas gauge here. We're trying to move that needle and then show that we are making some change. And I'll talk in an additional slide, what some of those have been going on.

Next, what's the work that's been done in FY22? Well, actually, this Friday is a very big event. We'll be briefing General Graham to get his hopefully approval of the path forward that we're looking at. We're going to be focusing on three areas already discussed, the CIMP and the TMP, along with the lock replacement. And we have a schedule set up where we figure that it's going to take us about 29 and a half months. We just received funding by work plan dollars in June of this year. So, with those funds, what we've done here so far, since we received those funds, we've actually got a contract awarded out to a consulting company that does transportation research. They're going to be looking at the bridges, local transportation, doing monitoring, and going to provide a lot of the information we need to be able to move forward with the communication, discussions, et cetera.

So, as we go forward looking at this schedule, we are currently enjoined by a federal judge at this point in time. So, the real question, I think, as a solid question, is what are we doing different this time? Well, the first thing, we have reached out, particularly the navigation industry, and by weekly calls we've been having with the GICA, Spencer has been able to attend many of those calls. We've also been able to -- GICA has reached out and actually hired a consulting firm that works in public relations, Pelican State Resources, have been huge in helping us set up meetings for the Colonel to go reach out to the community. They've been small group meetings. If you've been to a scoping meeting in an area, and during the NEPA process, when you have a large crowd there, it's almost like a mob mentality at times, when things start to go.

So, we're trying to get out to the small groups, talk to folks. We're not expecting to have a tremendous change in attitude. Nobody is going to be begging us to change, please put that new lock in my back yard, but we're wanting to educate them on what we're going to be doing and how we're going to be doing it differently. Another one of the things that we've done differently this time is actually with guidance from Mr. Lee (Mr. Alvin Lee, the Director of Civil Works), and I also believe General Graham, we've also reached out to our Center of Expertise for Inland Navigation, and also, we've been working closely with Collaboration and Public Participation Center of Expertise, so they will be on that phone call on Friday to talk about the things that we're doing and how we're doing things differently. And I guess the goal here, and we figure that we're going to spend, under this CIMP, about a year and a half. The transportation mitigation plan is going to take about a year and a quarter. We're going to be working on those items.

The whole issue is we're trying to get to a director's report where we'll go forth with the new information, and that report has to be legally -- that we can withstand any questions from the legal folks, because we know we're going to get sued again. I mean, it's a given. It's just, we know that they're going to be looking to sue, and so we're trying to make that bulletproof and trying to answer all the questions that have been asked this time and make sure we're on point.

So, the next slide, we've got approved funding in June. We're going to require an approved report, that we're going to reach out. Again, we brief General Graham on this Friday. The current BCR (Benefit/Cost Ratio) is 4.78. I would point out that that's based on numbers from 2019. We know costs have gone up and fully expect that BCR to come down some when we get a certified cost and are able to do the economics here as we get close to the end of this report.

The last slide, project issues. We know that we're strongly opposed by local citizens. In fact, recently, several letters have been sent to Mr. Connor at the ASA's office, and as I told my team, this is the best news I've heard in a while, because they would not be sending us letters unless they were concerned that we were making progress and getting people interested in actually moving forward. We've gotten letters from the governor, the Secretary of Agriculture, the Department of Transportation, along with industry, all supporting this, and so we've got the most broad-based support we've had.

Again, this lock is 100 years old. Every time we have to shut it down, the costs are tremendous, and there's really not a good alternative to go around at that point. But, again, we know we're going to face future litigation. We're also hoping that we can inform the folks and the people that will be impacted.

And it's been interesting. In some of these small groups, some of the folks said, I don't even want to talk about this communication -- or community impact mitigation plan, because if I do -- And we're going to have about \$70 million to work with in that community, by law, to try to mitigate any impact, so we have a broad brush that we can work with them to -- whether it's to create new parks, create job training, et cetera. They don't even want to talk about that because, they said, well that would be admitting that it's going to be built, so we don't want to even talk.

So, it's a fascinating. General, you might want to ask the Colonel, one of the ladies talked to him in a way that I doubt if he gets talked to very often, and apparently she worked for the same guys I worked for in construction and had quite profane language that they were able to use. So, I think very unusual for a small group meeting.

But definitely we know we've got work to do. And I think that's my last slide on this. Any questions on this one?

CHAIRMAN MURPHY: Brad, this is Spencer. It's not a question, but just a comment. I have been part of this process for the last year, over a year, you know. One, Colonel Murphy has done a great job, and your team has done a great job of trying to explain to the community what this is and what it isn't.

You know, this was a unique project within the Corps. The number of factors that come into play in terms of where it's located, the history of that neighborhood, the history of that neighborhood with the Corps of Engineers, the challenges that the engineering itself brings, I mean, it's a monster. But it's very important, and we're making progress.

The other thing I would just note that wasn't covered in the slide is, the existing lock is part of the MR&T levee system, and so it's a flood protection feature as well as a navigation lock, and it is one of the most vulnerable locations within New Orleans District along the MR&T. It is a low spot. So that's another element that is in play here, flood protection obviously is very important to those of us who, like myself, who live inside the City of New Orleans and live behind the HSDRRS (Hurricane Storm Damage Risk Reduction System). And so, updating this lock is not just a navigation priority, it's a community priority, properly understood. I've heard some of the

same reports Brad has about some of the local, you know, community meetings. Welcome to New Orleans is all I can tell you.

And at the same time, the reports that I've heard from Pelican State Partners and those that have been in them have been, a lot of progress has been made, and we've moved that gas gauge needle from zero up quite a bit. There will never be majority support for the project, but there will be a better understanding of the project in the neighborhood. And there is an increasing number of folks who are now properly educated about what this could mean for their community, the community mitigation plan, the transportation plan.

Those are things that don't happen in every lock project, and so they, I think, are trying to come to understand that there are some benefits here for the community, and they're real. But they only come with the construction of the project.

So, you know, you'll get a full briefing from the team this week, General, but I'm confident you're going to like what you hear based on what I've heard, and I look forward to seeing this project move forward.

MR. INMAN: Thank you, sir. All right. The last project we'll be looking at is the Bayou Sorrel Replacement Lock Project.

This was one of the projects we did take a look at when you all were in New Orleans in April. This project was authorized for construction in 2007 as a 75-by-1200-foot lock. Currently it's 56 feet wide and about 797 feet in length, so very small. One of the smallest locks. And also, it is placed inside the Atchafalaya levee system, east of Atchafalaya levee system, which is also a flood risk reduction lock -- a flood risk reduction levee system, and also this, just like IHNC, this happens to be the lowest spot in the Atchafalaya levee. So, any time we do have high water, we have to flood fight there at the lock itself, which can lead to lengthy closures on that.

So, an overview of the project, we do have -- during the Preconstruction, Engineering and Design, the PED phase, we got increased costs, to the point where that led to a post-authorization change report, and that eventually found that the lock was no longer economically justified.

However, enhanced analysis of the Lock Performance Monitoring System, the LPMS, data needs to accurately reflect observed delay times. We know there's a problem there with the data that went into that report, and those were greatly underestimated. We believe the results may influence the benefit-to-cost ratio in the positive direction.

Also, we've been told -- we would like to have been working on this study for quite a while, but we've been told that we need a new start, so we continue to express our capability when asked for budgets, so that we can get this in funding. After the New Orleans meeting, I was reached out to by some folks, and I know that they reached out to a congressional delegation looking at potentially an earmark to get this thing rolling, but apparently that fell out at a committee level in the WRDA bill, so it didn't make it through.

Next, you know, we had done a preliminary assessment with the folks with the Center of Expertise for Inland Navigation, looking at the LPMS data, and we know there were problems the way they were looking at the assist vessels that were used to aid in lockages there. We truly believe that additional analysis may move that needle in the positive direction for a BCR and may result in an economically justified project, a "new start."

We'll begin that process, and we assume there will be a three-by-three construct with the three years, \$3 million. Hopefully, we could make that quicker with the information that we have available. Yes, sir, Mr. Hettel?

MR. HETTEL: Yeah, Brad. On the LPMS stuff, I look back, and I referenced today earlier, from March till August 15<sup>th</sup>, 769 tows, average delay cost -- estimated delay cost to industry of \$12.1 million. What we're also not including is the assist charge from the tug. So, when that tug has to split up a six-pack of barges, that's a \$1,500 charge to the boat owner. And if 50 percent of those tows need an assist, that's another half a million dollars. So far this year, we're up around \$12.7 million. I looked back into my data from 2021, from March to October, at Bayou Sorrel, delays were \$14.15 million cost to industry, 1,506 tows. If you divide that in half, half of them need an assist tug, that's another \$1.3 million. So that's \$15 million in 2022 from -- 2021 from March to October. And March to August, we're already at \$1.7 million.

This LPMS data, we would not be in the position we are in if we had the correct data back in 2012 when we looked at it, and the BCR cost, one to one. Very important. I'm happy to help any time. Any records you want from me. And all of my numbers come out of the LPMS system, and I am eliminating the assist boats' lockage times because they're at zero to 15 minutes.

MR. INMAN: Thank you, Mr. Hettel. Appreciate that. We know that there's a problem with the data, the way it was analyzed, and needs to be corrected, so appreciate that offer for help and support.

So, there are still some concerns that we have. One obviously is looking at that LPMS data. When we did this report the last time, when you're looking at a lock and you're trying to look at the benefits to that lock, you're trying to look at how many lockages you expect to have.

The Department of Energy (DOE) did a projection, and this lock handles an awful lot of petroleum and chemical products, and that particular report was flatlined at the time. I think that's about the same time that they were putting in liquid natural gas, forced to import gas in Lake Charles, and since then, with changes in technology and fracking and so forth, now we have an abundance. We're trying to send gas overseas. So, I don't think the DOE projections at the time were correct.

Also, a big concern obviously is project cost growth. This is a dual purpose replacement, so it's navigation, so we'll have to appropriately charge the flood risk reduction parts of the project. And to make the project happen, we'll have to have funding from both sides at the same time, which is always a challenge, when we're bringing different sources of money together. And then we may look at some different plans, again, when we do this study. And so, again, at the end of the day, we want to have -- obviously get a federally recommended plan with the appropriate

benefit-to-cost ratio. So, a lot of work to do to get to where we need to be on this one, but we have to have funding and a new start to get going.

Yes, sir?

CHAIRMAN MURPHY: Spencer here. Two questions. One, if you got a new start tomorrow, regardless of the three-by-three, how much do you think the district could actually execute on in FY23, capability-wise?

MR. INMAN: If we had the funds to go with that, we would certainly reach out and try to get all the data analyzed. And so, just guessing, would be probably a million dollars or so.

CHAIRMAN MURPHY: And then on the dual purpose issue, this came up in the April meeting. If I recall correctly, and please correct me if I'm wrong, the flood protection component carries a BCR that is 20 to 1 or some very high number, correct?

MR. INMAN: For the MR&T system, the Mississippi River levees (MRL), is over 100 to 1. And you raised a very good point. This is part of the MR&T system. But typically, the BCR is for the MRL portion on the mainstem, so we'd have to take a look at how that goes, by including this Atchafalaya, which is part of the MR&T, Mississippi River and Tributary System.

CHAIRMAN MURPHY: The problem was, in the prior iterations of this, we failed the BCR because we weren't considering the flood risk management side, correct?

MR. INMAN: That's correct.

CHAIRMAN MURPHY: So, if it's a dual purpose project, you can't place it and have it be a navigation improvement and not a flood protection improvement or vice versa. So, it's both. If we do anything, it's going to affect both missions. We should use both BCR's, or combine them, combine the BCR for the project.

MR. INMAN: We'd have to take a look at that. The challenges in that area, it is a rural area, so we're not protecting an awful lot of infrastructure, like you would, say, on the Mississippi River, with the industry that we have along the river between Baton Rouge and New Orleans, so we would have to take a look and appropriately account for that.

CHAIRMAN MURPHY: I would hate to see us get neither when we need both because we can't properly combine the BCR's in a way that makes sense.

MR. INMAN: Thank you.

CHAIRMAN MURPHY: Thank you.

MR. INMAN: Any other questions? I think that was the last slide, I believe. Thank you.

MR. POINTON: No other questions for Brad? Great.

Thanks Brad, appreciate it. We're coming up on the closing comments by General Graham and Chairman Murphy. I'd like to put out a personal thanks to the Pacific Northwest Waterways Association for their hospitality while we're out here, as well as Shaver Transportation, and I think the entire Walla Walla District staff need a round of applause. They did a fantastic job out here. Now I'm going to go to the demerit side of the house and ask them, how come the weather is going to be so hot tomorrow? That's beyond their control. I got that. Speaking of the tour tomorrow –

MR. RICH: It's a dry heat.

MR. POINTON: Excuse me? Yeah, low humidity. The term I like to use, Rob, is hydrate or die, so, you know.

There are little menus for the lunch tomorrow, anybody who is going on the tour, so go ahead and make your lunch selection or you're not going to have a lunch on the tour tomorrow, or you'll have to share one. With that, I'd like to turn it over to General Graham.

GENERAL GRAHAM: This was really informative. I mean, I learned a lot. It's very daunting, because it looks like there's going to be a lot more money needed, but happy that this group exists and that you guys I know will help communicate to others what the needs are so that we can get these projects implemented. So, I appreciated being here today and I look forward to a very hot site visit tomorrow.

Joe Savage, you have anything to add?

MR. SAVAGE: (Recording only begins mid-sentence) ...the construction, but we are really going to need this team's support and assistance in figuring out which of the Tier 3 and Tier 4 projects are the right investments for the country moving forward. We could potentially, if we have the kind of investment that you all have anticipated, and, frankly, worked very hard for, with some of that share realignment, the Corps of Engineers could work ourselves to the point where we're looking for projects to fund. We don't want to be in a situation where we're not putting these dollars to the best use possible. So, I think that Tier 3 and Tier 4 focus here over the next year or two is going to be very important. Thanks.

GENERAL GRAHAM: Okay. Thanks, Joe. Thanks for that brief. That's a great one on, if it was easy, it would have been done.

CHAIRMAN MURPHY: It was authorized in 1956.

GENERAL GRAHAM: With that in mind, for all of the folks who came to give public comments, thank you for that. That's invaluable to us. The rivers, the navigable portion of the rivers, are part of the silent infrastructure that folks take for granted. Most of this has been there for a long time.

I understand that some of the Snake dams are relatively new in Corps time, which is in hundreds of years, but what the value of bodies like this are, and particularly this one, back to the partnership with the Inland Waterways Users Board is a manifestation of cooperation between government and industry -- it's telling the story of the value that this infrastructure brings to the citizens. We've heard a lot of it today. We heard it from the public comments, we heard it from your individual comments, we heard some from the federal observers. And what I tell the Corps folks is that is like being safe. You never get to done.

There's a book out right now called *The Infinite Game*, by Simon Sinek. He's one of the wittier people around with good insights. We like to have, particularly the good engineers in us, we like projects, right, that have a defined start and a defined end state. We spent a lot of this meeting talking about, when is the project going to be done, when is it going to be finished, when are we going to move on to something else? The telling of the story of the value that this infrastructure brings, that never ends.

And so, I would just ask all of us, as we go back to our own little pieces of this economy, is that you continue in your own way to tell the value of what this piece of the nation's infrastructure provides. Because it's kind of hidden. You all live this day in and day out, but most of the country doesn't. And that's our big challenge, is telling that story.

And this will be my last point; there's one other story that I just want to make sure I emphasize, and it's what I started off talking about, and it is being absolutely transparent with you on how much we believe this is going to cost and how much and how long it's going to take. Okay?

Mr. Savage just spoke to it. He goes, Hey, we're kind of optimistic, can-do people. And that often ends up in, We can get it done in this amount of time and this amount of money. And you heard Steph talk about it with Kentucky. We're going to pull the contractor forward.

I know, because this is just really hard. So why I mention that is, Steph is giving us the fact that she's just not going to quit, okay, driving Kentucky over the finish line. Colonel Sahl is not going to quit driving Kentucky over the finish line. But we want to be really realistic with you on how long it's going to take and how much it's going to cost. The steps throughout the term are 80 percent confidence level. So, when we look at a project, the project engineers who put it all together, then we'll say, what are the risks of us not being able -- that could impact this project? It might rain, it might snow, steel prices might go up, we might have a recession, a meteor is going to hit. Okay, what's the likelihood of that happening? What are the consequences of that happening? And then we're supposed to put contingency time and contingency money towards those likely risks, put it into some high, medium, low category, right, and that's the contingency time and contingency money. And that gives us a range. So, when she said 80 percent confidence, that is just taking this range that it could take 10 years or take 15 years. Eighty percent confidence says it's going to take 13, all right. We've been toying with the idea of, well, maybe we just show you the range. Maybe we don't say stop the chalk line at 80 percent. Eighty percent is kind of our threshold, all right? So, I would just ask you to consider that. What would be most helpful to you? You heard that, hey, once you put a time and a dollar figure on the almighty PowerPoint slide, they're going to tattoo it on your forehead.

We also want to be mindful of sometimes it's okay to put that out there, because then we work to manage towards meeting that expectation. Same way you do with your businesses day in and day out. So, again, we talked a lot today about there's a sweet spot in there that we aim to hit. We're pushing ourselves, as you just heard from Steph, to deliver as efficiently as we possibly can, but yet also being realistic with, what's most likely to come out?

So, we welcome your feedback on how we're doing at meeting that. Chairman?

CHAIRMAN MURPHY: General, thanks. And thanks to everybody who put the meeting together, and I'm looking forward to the tour tomorrow. And thanks, everybody, for sticking through, you know, a long meeting, but it's long because we have a lot to do, and we have a lot to talk about. I'm very encouraged by what I'm hearing, for the most part. I think we're still in a really good place. I'm optimistic about a lot of the projects that we can deliver.

The three things that I sort of took away that I want to say out loud so we all hear them and either agree or we can disagree, but the one thing I want to make sure we are aware of is, the trust fund is not meant -- we have the IJJA funds, and we have the trust fund, and the IJJA is not meant to replace the trust fund. Those funds are meant to be spent in addition to the trust fund projects, trust fund dollars. So, I just want to make sure that we don't forget about the trust fund because we have this wonderful opportunity with the IJJA.

Two, belatedly, as a Board, we need to have good numbers of what is in the trust fund, what is being obligated against the trust fund. Particularly ahead of these meetings, we need to all agree, this is what the balance in our joint checking account looks like, and these are the checks that are outstanding.

And then, three, as we talk about projects, talking about them as projects, not just as a program, is important, and providing us with some out-year capability numbers is also very important, because those are the things that our friends in Congress want to see, and ultimately everybody around this table is relying upon Congress to provide the money to do the projects that we need. And so, help us help you, is the message, because we have a lot to do and we have a lot of opportunity to get some things done, but we need to be organized for success. I think these last two meetings we've done a lot of work to get to that point, so again, I'm grateful for your time and your energy, and I look forward to what we have coming up.

So, with that, I will hand it over to anybody else from the Board who would like to make any comments before we wrap up.

MR. POINTON: David? Any other members? Jeff? Jeff Webb.

MR. WEBB: I wrote down a couple words here. One is transparency, and the other one is partnership, and we certainly appreciate your candidness on both. What I heard here today is, the sooner we get to the numbers that you guys think it's going to cost to build these locks and dams, the better we're going to be able to prepare ourselves to go to Washington, D.C.

I think it's super important we get another cost share change. It's as important as the last one. Where we're at today, we spent 30 years building Olmsted, or more. We've got great projects, and we got a bunch more we need to do. So, certainly appreciate everything that you guys are doing. The sooner we get those numbers, what you think it's going to build, the more we're going to be able to arm ourselves, go to D.C., and we're going to get you some more money. So, appreciate that.

MR. HETTEL: Mark, if I may follow up on Jeff's comments. Olmsted. That project drug along, drug along, and drug along, until Congress changed the cost share to 85 percent General Treasury, 15 percent from the Inland Waterways Trust Fund. That efficiently funded that project and finished it under the \$3.1 billion that the Corps thought it was going to cost, by some \$200 million. That was a fine example of efficient funding, getting these projects completed sooner at a less cost. Which resorts back to why we want to see our trust fund dollars utilized on an annual basis to finish these projects sooner, get them done less expensively.

MR. POINTON: If there's no other comments, we need a motion to adjourn.

MULTIPLE MEMBERS: So moved.

MR. POINTON: Do we have a second? Thanks, Jeff. All in favor?

ALL MEMBERS: Aye.

MR. POINTON: If there's any nays, you can stay here by yourself, so motion passes.

(Whereupon the Meeting adjourned).

**Inland Waterways Users Board Meeting No. 97**  
**Walla Walla, Washington**  
**August 16, 2022**  
**List of Participants**

<u>Last Name</u>	<u>First Name</u>	<u>Affiliation</u>
Albaugh	J. Pat	Port of Skamania
Alvord	Melanie	Texas Department of Transportation
Anderson	Kymerly C.	USACE, Portland District
Backus	Jay	Port of Clarkston, WA
Belk	Edward E. Jr.	USACE, Mississippi Valley Division
Black	Travis	U.S. Dept. of Transportation, Maritime Administration (MARAD)
Bowman	Geoff	Van Scoyoc Associates (for WCI)
Bronson	Candida K.	USACE, South Atlantic Division
Brown	Karl B.	USACE, Galveston District
Brown	Ms. Stacey	HQDA, Ofc of Assistant Secretary of Army (Civil Works)
Bucci	Ms. Mary Ann	Port of Pittsburgh Commission
Burroughs	Ms. Tiffany S.	USACE, HQ Operations & Regulatory Div, Navigation Ops
Cameron	Tamara E.	USACE, St. Paul District
Carpenter	Craig A.	USACE, St. Louis District
Clouse	Paul D.	USACE, HQ Operations & Regulatory Div, Navigation Ops
Coffey	Frances E. "Beth"	USACE, Northwestern Division
Davidson	Dustin H.	Waterways Council, Inc. (WCI)
Doyle	John S., Jr.	Jones Walker LLC
Druffel	Leslie	The McGregor Company
El-Naggar	Kareem S.	USACE, Great Lakes and Ohio River Division
Ewing	Tom	
Frabotta	Christopher C.	USACE, Galveston District
Frantz	David A.	USACE, HQ Operations & Regulatory Div, Navigation Ops
Fritz	Stephen R.	USACE, Pittsburgh District
Gilbert	Ms. Heather	National Oceanic and Atmospheric Administration (NOAA), Office of Coast Survey
Gillip	Jonathan A.	USACE, Little Rock District
Goodall	Andrew J.	USACE, Rock Island District
Gordanier	Cody	Shimmick Construction
Gottbrath	Charlie	CGB Enterprises, Inc.
Graham	MG William "Butch"	USACE, Headquarters, Civil Works Executive Office
Hall	Ms. Stephanie J.	USACE, Nashville District
Harshman	Scott	Port of Pittsburgh Commission

Haussener	Jim	California Marine Affairs and Navigation Conference (CMANC)
Henderson	Richard	U.S. Dept. of Agriculture (USDA), Transportation Ser Div
Hettel	Martin T.	American Commercial Barge Line LLC (ACBL)
Hoey	Jeanine	Private Citizen
Horgan	Thomas M. "Tom"	SCF Marine, Inc.
Hough	Nathaniel	Campbell Transportation Company
Howard	Jamie N.	USACE, Walla Walla District
Inman	Brad L.	USACE, New Orleans District
Jackson	Clay	Shimmick Construction
Jackson	Jeffrey C.	USACE, Walla Walla District
Judd	Damon S.	Marquette Transportation Company
Kalhagen	Geir-Eilif	Texas Department of Transportation
Kammerzell	Tom	Port of Whitman County, WA
KingSlack	LTC ShaiLin	USACE, Walla Walla District
Knaub	Emily	Texas Department of Transportation
Koebberling	Kenneth E. "Kenny"	USACE, Walla Walla District
Kreider	Richard	Campbell Transportation Company
Lacek	Dan	Campbell Transportation Company
Lopez	Jose R.	USACE, St. Louis District
Marcey	CAPT Daniel L.	USACE, Headquarters, Civil Works Executive Office
McCallister	Dr. Larry D.	USACE, South Atlantic Division
McCormack	Frank	The Waterways Journal
McDonald	Ms. Joyce M.	USACE, Southwestern Division
Meira	Kristin	American Cruise Lines
Milner	Travis	Texas Department of Transportation
Murphy	W. Spencer	Canal Barge Company
Murray	David	The Waterways Journal
Nelson	Craig	Tidewater Barge Lines
Norton	Jarod K.	USACE, Northwestern Division
Oakley	Dennis	Bruce Oakley, Inc.
Ocker	Paul A.	USACE, Walla Walla District
Olson	Patty	Shimmick Construction
Paape	William K.	U.S. Dept. of Transportation, Maritime Administration (MARAD)
Peha	Chris	Northwest Grain Growers, Inc.
Pierce	Craig R.	USACE, Little Rock District
Pointon	Mark R.	USACE, Institute for Water Resources
Proffitt	Glenn R.	USACE, Little Rock District
Ramos-Gines	Orlando	USACE, Galveston District

Rase	Lance M.	CGB Enterprises, Inc.
Rasmussen	Chris	Port of Clarkston, WA
Rich	Robert D. "Rob"	Shaver Transportation Company
Ricketts	C. Matthew "Matt"	Crouse Corporation
Riddle	Jennifer	Tidewater Barge Lines
Riley	Steven D.	USACE, Institute for Water Resources
Rodriguez	Federico	Texas Department of Transportation
Rohde	Paul	Waterways Council, Inc. (WCI)
Sahl	LTC Joseph M.	USACE, Nashville District
Savage	Joseph M.	USACE, Great Lakes and Ohio River Division
Shaver	Steve	Shaver Transportation Company
Shine	John	Shimmick Construction
Simons	Catherine	U.S. Dept. of Transportation, Maritime Administration (MARAD)
Smith	Thomas P.	USACE, HQ Operations & Regulatory Division
Stebbins	Ms. Heather	Pacific Northwest Waterways Association (PNWA)
Stephaich	Peter H.	Campbell Transportation Company
Tarpey	Michael J.	USACE, Rock Island District
Taylor	Ms. Crystal D.	Ingram Barge Company
Turner	Richard C.	USACE, Southwestern Division
Walker	Adam C.	USACE, Nashville District
Weaver	Matthew	Capital Press
Webb	Jeff	Cargill, Inc.
Winters	Robert L.	USACE, Nashville District
Zea	Tracy	Waterways Council, Inc. (WCI)

**Inland Waterways Users Board Meeting No. 97**  
**Walla Walla, Washington**  
**August 16, 2022**  
**Statements Submitted for the Record**

**Comments submitted on behalf of the Port of Clarkston—the 2<sup>nd</sup> furthest inland seaport on the Columbia Snake System  
Inland Waterways Users Board Meeting No. 97  
Walla Walla, Washington  
August 16, 2022**

Submitted attention: Mark Pointon, Designated Federal Officer  
Institute for Water Resources  
U.S. Army Corps of Engineers, ATTN: CEIWR-NDC

Thank you for the opportunity to submit written comments to the Inland Waterways Users Board (IWUB) in preparation for its meeting in Walla Walla, WA, on August 16, 2022. The Port of Clarkston, WA (POC)—the second furthest inland seaport on the Columbia/Snake River system—particularly appreciates the invitation to address one of the agenda topics for that meeting: ***the value of the Snake River locks and dams.***

Commercial navigation is just one of many purposes achieved when the four lower Snake River dams were authorized by Congress. In these comments, POC will keep its comments focused on commercial navigation since that is IWUB's area of greatest interest. (Other partners such as PNWA have already commented on carbon emissions, excellent fish returns, world-class fish passage, and clean, affordable and sustainable energy from Northwest hydropower system, including the four lower Snake River dams.)

Millions of tons of commodities are moved through the four lower Snake River dams. In addition, cruise boat traffic contributes tens of thousands of visitors to the middle Snake River. Barging commodities and river cruising both require a safe and efficient federal waterway and a set of working locks for every dam to facilitate transportation. Without river navigation, these activities are no longer possible. Cruise traffic on just the Columbia River would be severely curtailed because the key attractions for river cruising are on the Snake River near and upriver of Clarkston, WA.

Both commercial navigation activities addressed above bring value and economic prosperity to river communities, the region, and the nation—without creating significant demands for new infrastructure, particularly at a time with greater focus on climate impacts and sustainability. River navigation in the Pacific Northwest offers the greatest transportation benefits at the least cost in carbon emissions.

Transporting Cargo:

What moves, at what values: Ninety percent of the grain produced in southern Washington, northern Idaho and eastern Oregon moves by barge. Washington is the fourth-largest wheat producing and wheat exporting state in the nation. Whitman County—a county categorized with persistent poverty—has been the nation's top wheat producing county since 1978. Roughly 45% of all barged grain (primarily wheat) coming out of the Columbia River system travels through lower Snake River locks and dams. The Columbia/Snake is the United States largest export location for wheat; it is the third largest in the world. Annually, roughly 10% of all wheat *exported from the United States* passes through one of the four lower Snake River dams. To not maintain or rehabilitate any one of the four lower Snake River dams will have significant ripple impacts and cause food shortages around the entire world, similar to the effects of recent worldwide grain shortages caused by the interruption of Ukrainian wheat shipments.



Although wheat is the primary commodity shipped by barge on the lower Snake River, passing through the four dams, other products also are shipped. These include forest products (sawdust, wood chips, fertilizer and raw materials for producing fertilizer).

Other non-commodity cargoes include unique shipments, which can be lumped under the “High, Wide and Heavy” category. These unwieldy, overlarge items can range from electrical transformers to scrubbers for oil refineries to wind blades and wind turbines. They are too long, too tall, too wide and/or too heavy to fit safely on other modes of transportation. The Snake River navigation channel is particularly well suited for managing these unique shipments because there are no overpasses to manage going east, north, or south of Lewiston, Idaho. Keeping the “High, Wide, & Heavy Corridor” available for future use is a wise and thoughtful investment in the future.

Barge transport is:

- More fuel efficient (i.e., less fuel per ton of cargo, and thus lower carbon emissions) than alternative forms of transportation,
- Cleaner,
- Safer (with far fewer traffic fatalities than alternatives), and,

Having adequate maintenance of locks and dams contributes to reliability of cargo deliveries.

Millions of dollars invested locally to serve the barging industry would be stranded if the dams were removed. Alternatives to barging are not available in Asotin County. This geographical jurisdiction is the only county in Washington to NEVER have rail. There is an insufficient quantity of trucks and/or truck drivers to move this cargo. The American Trucking Association calculated a nationwide shortage of 80,000 truck drivers in 2021. This trend continues today.

An additional 23.8 million miles annually will occur on the Pacific Northwest roadways if barging ceases. Dam breaching ostensibly is to serve fish recovery, but studies have shown that micro particles from tires and brakes are extremely damaging to fish when roadways are along waterways (which they most frequently are). Not maintaining the navigation channel would be a step backwards in fish recovery.

Facilitating River Cruising as a major growth sector:

Cruising is a growth sector on the Columbia Snake River System. River cruise visitors to just the Lewis-Clark Valley (at the upper end of the navigation channel) increased by roughly 500% between 2011 and 2022. With growth and itinerary changes, the cruise industry contributions to just the Lewiston/Clarkston Valley changed from \$4 million annually in 2019 to an expected \$6 million in 2022. This 50% increase in four years is particularly notable because due to the pandemic, the industry was shut-down altogether in 2020 and was required to reduce capacity for social distancing in 2021. Cruise bookings on the Columbia-Snake River have exceeded the cruise bookings on the Mississippi River since 2018.

- Cruising options have expanded due to market demand with the result being greater economic contributions to the communities at which the cruise lines call.
  - For example, the Lewiston/Clarkston Valley has expanded air flight options to address cruise passenger needs; roughly 30% of travelers passing through this regional airport are connected to cruises.
  - Another example of growth impacts: Hotel room stays for just one of the four cruise lines calling in the Lewiston/Clarkston Valley will increase from the baseline by 5,000

room nights in 2022 and is expected to add to the baseline 8,000 room nights in 2023.

- Cruise passenger growth and economic contributions are compatible with small river communities and brings value without inundating them.
  - The Lewiston/Clarkston Valley has a population count of fewer than 65,000 people. The 29,000 cruise boat passenger projected in 2023 would increase the population by close 44% if they all came at once and stayed. But instead, they visit from April through November, in volumes manageable and complimentary to community capacity and local economic development objectives. Millions of dollars invested locally to serve the cruise industry would be stranded if the dams were removed.

Given the transportation advantages and economic impacts relating to commercial navigation described above, the Port of Clarkston respectfully requests that the Inland Waterways User Board continue to recommend rehabilitation and maintenance of the four lower Snake River locks and dams. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Rasmussen". The signature is fluid and cursive, with the first name "Chris" being more prominent than the last name "Rasmussen".

Chris Rasmussen, Executive Director  
Port of Clarkston



**Comments submitted on behalf of Tidewater Transportation and Terminals  
Inland Waterways Users Board Meeting No. 97  
Walla Walla, Washington  
August 16, 2022**

Dear Members of the Inland Waterways User Board,

On behalf of Tidewater Transportation and Terminals, Inc., it is my pleasure to welcome you to the Pacific Northwest and submit this written comment for your consideration as you hold the 97th meeting of the Inland Waterways User Board.

Headquartered in Vancouver, Washington, Tidewater has been in business since 1932 and operates a fleet of tugboats and barges and marine terminals on the Columbia and Snake River System (CSRS). Tidewater is the largest inland marine transportation company west of the Mississippi River and our vessels move millions of tons of freight every year on the commercially navigable 465 miles of the Columbia and Snake Rivers. The safe, efficient barge service we and other providers offer to the region is made possible only through this federal lock and dam infrastructure.

The Pacific Northwest is heavily reliant on our dams and the working waterways they support. This infrastructure provides safe and fuel-efficient transportation, international trade, zero-emission energy, drinking water, and irrigation. In fact, 60% of the nation's wheat moves from farms to global markets via the Columbia Snake River System, and in Washington State, 40% of jobs are tied to international trade. The benefits this system brings to the region are irreplaceable.

It is with these benefits in mind that we have deep concerns over recent proposals to breach the lower four Snake River dams. Independent economic analysis has found that the removal of the lower Snake River dams would increase CO2 emissions by an estimated 1.2 million tons each year, while causing a 100% increase in grain transportation and storage costs. In addition, up to billions of dollars in infrastructure investments would be needed in highways and rail to replace the safe, clean, and efficient transportation offered by barging. Retaining each dam throughout the CSRS is vital to sustaining not only the benefits of barge transportation, including the over 4 million tons of products moved annually in and out of the Snake River Dams, but also our economy and way of life in the Pacific Northwest.

Along with this letter, I have attached comments recently submitted to the offices of U.S. Senator Patty Murray and Washington Governor Jay Inslee, which outlines the detrimental effects to our operations and the region that would accompany dam breaching activity proposed in their draft Lower Snake River Dams Benefit Replacement Study Report.

Also key to the operation of barge service in our region is support from the Inland Waterways Trust Fund (IWTF). This important source of funding helps ensure a fully functioning lock and dam system and avoid costly delays caused by breakdowns and outages. While the Northwest currently has no new construction or major rehabilitation projects on the horizon, Tidewater has applauded recent congressional actions to increase revenues and solvency of the IWTF,



lower the cost-share requirements for projects, and consider the infrastructure needs of each fuel-taxed inland waterway system.

Specifically, Tidewater has supported an increased federal cost share of IWTF-sponsored projects, including a proposal recently approved in the U.S. Senate to increase the federal share to 75 percent of total project costs, which would help maximize the use and reach of IWTF funding. Tidewater has also supported increased diesel tax revenues through an increase of the tax from 20 to 29 cents per gallon and we support a continued dialogue regarding the future of the fund. While we support efforts to achieve a healthy and solvent IWTF, proposals to impose new per vessel charge or lockage fee for commercial barges using locks operated by the U.S. Army Corps of Engineers would be detrimental to Columbia Snake River System users. We welcome a continued dialogue on ways to further enhance the solvency of this fund and ensure it can continue to support the CSRS and other inland systems.

Although the Pacific Northwest currently has no upcoming new construction or major rehabilitation initiatives, operators in the region like Tidewater continue to pay into the IWTF. We appreciate continued recognition by Congress of this type of circumstance and requirement that all U.S. geographic areas are represented in the Capital Development Plan. It is also important that this Plan continues to be reviewed every five years to allow opportunities for the addition of projects that may arise after the list is initially developed. These two policies allow Pacific Northwest projects to receive funding from the IWTF in the event we see a major rehabilitation or new construction project arise on the inland Columbia Snake River System in the future. We are also thankful to the Portland and Walla Walla Districts of the U.S. Army Corps of Engineers and their continued coordination to ensure that funding needs on the Columbia Snake River System are proactively anticipated, identified, and addressed in a timely, operations & maintenance (O&M) fashion.

Thank you for your consideration and your continued work to support America's inland waterways. We look forward to working with the Board, as well as the Administration, Congress and industry on successful approaches to manage the IWTF and support inland waterway projects going forward.

Sincerely,

A handwritten signature in blue ink that reads 'Todd Busch'.

Todd Busch  
President and CEO, Tidewater



July 6, 2022

U.S. Senator Patty Murray  
Washington State Governor Jay Inslee

Dear Senator Murray and Governor Inslee,

Thank you for the opportunity to provide comments regarding the draft Lower Snake River Dams Benefit Replacement Study Report. These comments are submitted on behalf of Tidewater Transportation and Terminals (“Tidewater”), which is headquartered in Vancouver, Washington.

Tidewater has been in business since 1932 and operates a fleet of tugboats, barges and marine terminals on the Columbia and Snake River System. Tidewater is the largest inland marine transportation company west of the Mississippi River and our vessels safely move millions of tons of freight every year on the commercially navigable 465 miles of the Columbia and Snake Rivers, reducing congestion and wear and tear on the state’s highways and railroads, while producing far fewer pollutants and carbon emissions than trucks and trains transporting equivalent tonnage. Tidewater is a proud steward of the environment with a sterling record of environmental protection and safety, supporting the Columbia and Snake River System as one of the most efficient networks for moving commodities in the nation.

While we appreciate the consultants at Kramer Consulting and Ross Strategic reaching out to Tidewater and other stakeholders for their views, the draft report significantly underestimates the devastating impacts the loss of the Lower Snake River Dams (LSRDs) would have on businesses like Tidewater, as well as impacts to food and fuel security, affordable energy, climate, our local and state economies, rail and road infrastructure, public safety, and much more.

The Columbia Snake River System (CSRS) shipping corridor has been developed into an integrated system of inland and deep draft navigation. This corridor must be examined as a complete system, and not limited to separable parts, i.e., LSRDs. Over the years, some have proposed extreme modifications to river system operations and/or structures. These proposals have included:

- Reservoir drawdown, to increase water velocity. A month-long drawdown of the Lower Granite and Little Goose pools was tested in March 1992, taking those reservoirs nearly 30 feet below minimum operating pool. The drawdown was intended to help juvenile salmon migrate more quickly. This test drawdown delivered such negative results for migrating fish, river infrastructure, and trade, the Corps announced it would not conduct another test draw-down in 1993 and has not performed any others in this river since 1992. The Port of Lewiston’s website has a several photos of the damage caused by the 1992 drawdown; please visit <https://portoflewiston.com/our-port/media-room/photo-gallery/1992-drawdown-gallery> to view the photos.
- Breaching one or more of the multi-purpose dams on the Snake River. Breaching a dam would permanently halt barge and other commercial navigation operations for the pool behind that dam, and all points east. The level of the reservoir behind the breached project would drop



approximately 100 feet, making the stretch of river unnavigable for commercial vessels. This drop in the pool level is even lower than that of a drawdown. If all four LSRDs were breached, it is unknown whether the pool behind McNary Dam, the last main stem dam on the Columbia River, would remain navigable (due to water velocity, and shallow drafts created by sedimentation and shoaling). A similar shallow draft issue happens today at the confluence of the Clearwater and Snake Rivers. The constant need for dredging of that confluence requires funding requests through Federal appropriations for the U.S. Army Corps of Engineers, which can take years to obtain. In addition, if past experience shows us anything, lawsuits and litigation will follow any dredging plan on the Snake River, significantly delaying dispatch and administration.

This would potentially eliminate barge service to Tidewater's Snake River Terminal in Pasco, WA, and Tidewater's Umatilla Terminal in Umatilla, OR, as well as several other ports and terminals (i.e. NW Terminal – owned and operated by Marathon) along the 35 mile stretch of the Columbia River leading to the confluence of the Snake River.

Your offices will be receiving several comment letters that will detail a wealth of facts and figures, charts and graphs, and historical context regarding the CSRS. The comments in this letter will expound on the impacts with regards to barging and navigation.

#### Impacts to Tidewater and local businesses

Tidewater has 380 employees and is one of many companies that account for nearly 40% of all Washington State jobs that are tied to trade related activity. If barging was removed on the Snake River, Tidewater could no longer operate the majority of its fleet and very likely our Pasco and Umatilla terminals. We would have no choice but to lay off a significant amount of our employees and seriously consider shuttering our entire operations. This would be devastating to Tidewater's employees and their families that rely on Tidewater to make a living. The impact would also trickle down to Tidewater's local vendors and suppliers that count on Tidewater's business, as well as to the river and export grain elevators, refined liquid product providers, agribusinesses, ports, consumers, and the hundreds of farmers we consider customers.

#### Impacts to food and fuel security

Sixty (60) percent of our nation's wheat moves from farms to global markets via the Columbia Snake River System, making this gateway first in the nation for wheat and second in the nation for soy exports. Wheat loaded and barged on the Snake River makes up ten (10) percent of all U.S. wheat exports. All told, this river system is the largest export gateway on the U.S. west coast.

Breaching the LSRDs would eliminate the ability to timely transport wheat from sixteen elevators on the Snake and Clearwater Rivers to market (20 elevators, if you include the four elevators behind McNary Dam). Tidewater also provides extra barge storage for when these river elevators reach capacity. The river elevators are not set up to load unit trains and building this infrastructure would be costly and unrealistic due to land and permitting constraints. The Kramer report severely underestimates what it will take to replicate the current distribution system for the region's grain exports.



In addition to grain movements, Tidewater transports and terminals fertilizer and chemicals for the agriculture community and wood chips for the paper industry on the Snake River. Our Pasco terminal is multi-modal, accessible by barge, pipeline, rail, and truck, and is one of the larger tank farms with truck rack capabilities in the state.

**The CSRS is crucial to fuel supplies into the eastern parts of Washington and Oregon** for consumers, the agriculture industry, the railroad, and aerospace, including to Defense Logistics for Fairchild Air Force Base in Spokane, WA and Chevron for fire-fighting season. Pipelines that extend from Salt Lake City, Utah into the Tri-Cities and from Billings, Montana into Spokane are not adequate at supplying the demand of the region. For decades, Tidewater, in double-hulled barges, has transported refined liquid products on the river system to markets on the eastern regions of Washington, Oregon, and western Idaho. We are the only connection between volumes in PADD 4 (Rocky Mountain District) and PADD 5 (West Coast District) and are considered the eastern arm of the Olympic Pipeline, helping keep fuel pricing competitive and volumes available to consumers and industries in these communities. We also barge downriver from our Pasco Terminal nearly 80% of the ethanol volume blended into the Portland refined petroleum supply.

The current reliable, safe, just-in-time barging of these energy commodities would be in jeopardy if the Snake River Dams were removed.

#### Impacts to affordable energy

Tidewater's Terminal Company, which includes four terminals on the CSRS, relies on affordable energy produced by the hydropower dams, not to mention our fleet of tugs and barges that plug into shoreside power. According to the Bonneville Power Administration, the LSRDs provide both baseload capabilities and backup generation flexibility and responsiveness, generating enough clean energy to power 1.87 million homes.

#### Impacts to climate

At a time when Washington state is implementing and investing in its decarbonization goals, it makes little sense to curtail barging on the Snake River. Barging is nearly 40% more fuel-efficient than freight trains and 270% more fuel-efficient than semi-trucks. According to the Pacific Northwest Waterways Association, in 2020, over 4.2 million tons of cargo was moved on the Snake River. It would take 42,160 rail cars or 162,153 trucks to move the same amount of cargo.

Shifting commodity flows from barge to truck and rail will have a detrimental impact on the environment. Annual emissions will increase as follows:

- 860,000 additional tons of CO<sub>2</sub> per year;
- 306.5 additional tons of NO<sub>x</sub> per year;
- 7.5 additional tons of Particulate Matter per year;
- 69.7 additional tons of CO per year; and
- 7 additional tons of Volatile Organic Compounds per year.



### Impacts to our local and state economies

The CSRS is a vital trade gateway for the region and the nation. The competitiveness of U.S. products overseas is greatly impacted by domestic transportation costs. Breaching the LSRDs would cut off access to several river ports, terminals, and river grain elevators. Our Northwest farmers and other regional businesses (refined liquid products, agricultural nutrients, wood and paper products, project cargo shippers, etcetera) would need to turn to more costly, less efficient, and less safe modes of transportation.

Studies have found that some farmland values could be significantly decreased, and some farmland could be taken out of production altogether due to increased transportation costs. According to the Washington Grain Commission, Washington wheat farmers, together with the businesses and industries that directly and indirectly support the farms and their employees, provide Washington State with 18,885 jobs. Washington's wheat farmers and their employees contribute to the state's economy by spending \$0.87 of every \$1.00 earned for off-farm purchases.

It is also important to remember that commercial navigation on our inland system includes more than just barging cargo. The socioeconomic analysis must also capture the use of navigation infrastructure for cruise boats, yachts, and regular recreational boats. These vessels bring over 30,000 visitors to the Lewis-Clark Valley annually.

### Impacts to our rail and road infrastructure

While the dams themselves exhibited no damage from the earlier mentioned 1992 test drawdown, other structures in those pools, including roadway and railroad embankments, piers, and boat docks, were damaged. Without the appropriate water levels, weakened soils could not provide the proper support for in-river and shore side infrastructure. Road and rail embankments began to fail, resulting in cracking and movement of roads, damage to guardrails, and railroad track misalignment.

In addition to the impacts to existing in-water and adjacent infrastructure, the removal of barging and shift of cargo to other modes would bring significant surface transportation maintenance and construction costs as well.

### Impacts to public safety

Increased safety risks are also likely to accompany any modal shifts for Northwest cargo shipping. In 2007 the U.S. Maritime Administration (MARAD) commissioned a study to determine the impact to the general public resulting from various types of cargo shipping. The study found a dramatic difference in the ratios of accidents from each mode of transport. For every one barge accident that resulted in a fatality, there were 23 rail and 155 truck fatalities. For non-fatal incidents, the numbers were even starker, with every barge related injury corresponding to 125 rail injuries and 2,179 trucking related injuries. Using those numbers, the study looked at a test case of closing a major river to barging and found that after ten years, injuries and fatalities on the surrounding highways rose 36-45% from the increased congestion. Washington State



must evaluate risks for the traveling public if there is a diversion of cargo transportation from relatively safe barging to higher risk transport modes.

As a Northwest business, that is celebrating 90 years of service on the Columbia Snake River System, we support science-based salmon recovery and agree that more can be done to help our salmon runs. We thank you for championing salmon recovery investments, which include salmon restoration, pollution cleanup, maintaining and rehabilitating riparian lands, increasing support for hatchery operations and correcting fish passage barriers. We believe these are the kinds of investments and improvements that will help species recovery without adversely impacting the viability of Washington, Oregon, and Idaho's economies, the PNW climate commitments, and the maritime industry that supports regional and global supply chains and thousands of family wage jobs.

Thank you for your time. Please feel free to contact my office if we may be of any assistance.

Sincerely,

A handwritten signature in blue ink that reads "Todd Busch".

Todd Busch  
President and CEO, Tidewater

# COLUMBIA TOWBOAT RIVER ASSOCIATION

Portland, Oregon

August 8, 2022

Dear Chairman Murphy and Inland Waterway Users Board Members:

Thank you for holding your meeting in the Pacific Northwest, to showcase the Columbia and Snake River navigation system. We appreciate the opportunity to provide comment on the value of the river system, and the investments made to ensure the continued safe and reliable operation of the navigation locks.

Since 1942, the Columbia River Towboat Association (CRTA) has promoted the common interests of the tug and barge industry on the Columbia and Snake River System. The CRTA stands with others across the Pacific Northwest and across our Nation in support of a balanced, apolitical approach to federal infrastructure funding and solutions.

As you are aware, there is a significant amount of focus on the future of four of the eight dams on our river system. The loss of the Lower Snake River dams would have a devastating impact on maritime transportation companies like ours and breaching the dams would undermine our regional economy and entire way of life. The Northwest and our Nation is heavily reliant on our dams and the maritime transportation corridors they create. Annually, sixty-percent of our Nation's wheat moves from farm to global markets via the Columbia Snake River System. This year's wheat exports will be of vital importance to the world market as the war in Ukraine threatens the global food supply. Losing the ability to move crops on the Columbia Snake River System would spell the end of a vital trade corridor for our region, our nation, and the world.

One of the most troublesome assumptions of dam breaching is that all cargo that moves by barge on the Snake River today could be shifted to rail and truck. In 2020, 4.2 million tons of cargo was transported through the Snake River dams. If the dams were removed, it would take 162,153 semi-trucks or 42,160 rail cars to move that same amount of cargo. That means at least 201 additional unit trains and 23.8 million miles of additional trucking activity annually that will increase safety risks, congestion, and emissions in our communities.

Today, our Class-I railroads are under constant disruption due to high-levels of congestion, aging infrastructure, rail car capacities, and labor shortages. In the trucking industry, there remains a shortage of over 80,000 truckers across the nation. In short, rail and truck capacity in the U.S. and Northwest cannot support existing demand. How can those modes of transportation be expected to support an additional 4 million tons of cargo if Snake River dams are breached?

Another very troubling aspect of dam removal is its impact on the climate and communities. Shifting all cargo from barge to rail and truck would result in massive increases in greenhouse gas emissions, totaling over 1,251,000 tons of CO2 and other harmful emissions each year. It also means the loss of the zero-carbon, reliable, and affordable power that hydroelectric dams provide businesses and residents in our region. As we have seen in recent months, high energy prices create a downward pressure on our economy and disproportionately effect low-income communities.

For the reasons stated above, funding to ensure our locks and dams remain safe, reliable, and efficient is more important than ever. We greatly appreciate the leadership and support of the IWUB to prioritize funding for the Columbia Snake River System. We look forward to further discussions about how to ensure it remains a viable component of our regional and national marine transportation system.

Thank you again for the opportunity to comment. Please feel free to contact me with questions at [jhellberg@shavertransportation.com](mailto:jhellberg@shavertransportation.com) or at (503) 298-3775.

Sincerely,



Jon Hellberg  
VP of Operations, Shaver Transportation Company  
Chair, Columbia River Towboat Association



**Comments submitted on behalf of the Pacific Northwest Waterways Association  
Inland Waterways Users Board Meeting No. 97  
Walla Walla, Washington  
August 16, 2022**

The Pacific Northwest Waterways Association (“PNWA”) appreciates the opportunity to provide comments to the Inland Waterways Users Board regarding the importance of our inland navigation projects to the region and the nation. PNWA is a regional trade association comprised of approximately 150 organizations, including public and private ports, transportation, trade, tourism, agricultural, forest products, labor, and energy related entities. For 88 years, PNWA has led the way for development of economic infrastructure for navigation, hydropower and irrigated agriculture on the Columbia Snake River System (CSRS).

We have had the pleasure of talking with the IWUB over the years about the many benefits provided by the Columbia and Snake River dams, and our appreciation of the Board’s prioritization of projects on the CSRS. Despite the many benefits of dams, the call for removal of four of the eight projects remains. The good news is, that the facts about these four vital components of our river system have also stood the test of time. The Snake River dams are critical for hydropower production, barging, irrigation, and recreation. They are also some of our most fish-friendly dams in the entire Pacific Northwest, with over 95 percent of juvenile salmon surviving passage at each one. The Snake River dams were built with fish passage structures, have never blocked fish, and the Army Corps has been making steady improvements to them ever since. Today, they have truly world-class fish passage facilities making them virtually transparent to the species, and serve as examples of what we hope can be achieved at other dams in the Northwest and beyond.

Improvements at these facilities are helping boost returns, and there is good news to report. As of August 1<sup>st</sup> this year, sockeye returns at Bonneville dam were the best on record, and Lower Granite, the furthest inland dam on the Snake River, saw the 2<sup>nd</sup> highest sockeye returns since 1962. Adult chinook past Bonneville were at 120% of the 10-year average and Lower Granite has the 10<sup>th</sup> highest count by August 1<sup>st</sup> on record. This is great news for our fish and the region, and a tangible demonstration that fish are able to transit the river system in both directions.

The Snake River dams are a critical component of the regional, national and global transportation system, linking our Northwest and Midwest farmers with customers around the world. In any given year, nearly 10 percent of all U.S. wheat exports are transported by barge on the Snake River which is part of an integrated inland and deep draft navigation network that makes the CSRS the number one wheat export gateway in the nation, second in the nation for soy, and the third largest grain export gateway in the world.

Barge transportation is the most efficient, safest, and least carbon-intensive method of getting our U.S. commodities to market. It also disciplines rail and trucking rates, and is absolutely critical to the efficient movement of Northwest products. All three modes of freight transportation are essential if we are to continue being a region and nation that grows and manufactures products for export.

In 2020, the most recent year for which we have waterborne commerce data from the U.S. Army Corps of Engineers, cargo movement on the Snake River remained strong with over 4.2 million tons. To move the same amount of cargo that was shipped by barge on the Snake River by rail or road instead, it would have required more than 42,000 rail cars or over 162,000 semi-trucks. This conversion helps put things in

perspective - imagine such an increase in trucks going through our Northwest communities or adding over 40,000 rail cars to our already congested rail system. When we think of it in terms of climate impacts, eliminating barging through the Snake River dams would mean an increase of over 5 million gallons of diesel each year, bringing with it over 1.2 million tons of CO<sub>2</sub> and other harmful emissions into our sensitive air sheds.

Though wheat is often the first thing that comes to mind on the CSRS, our inland transportation network also supports containerized and petroleum products, oversized cargo like wind blades, and a growing cruise industry. Cruise boat demand has steadily increased over the last ten years and represents a growing market in the region. Each summer, thousands of passengers enjoy the Columbia and Snake River on cruise vessels which travel the 325 river miles between Vancouver and Clarkston. Over 25,000 passengers and crew visited in 2019, making use of the federal navigation channel and locks, and providing hundreds of jobs in our region. When you look at spending by passengers, the cruise lines, and their crews, there was over \$15M contributed to communities along the two rivers.

Dam breaching advocates will often single out the barging industry, and claim that maintenance of the inland navigation channel would be a "subsidy" to the industry. In reality, federal navigation channels are a national asset that benefits many sectors. We know you understand this, and that the benefits of investments in our navigable waterways radiate throughout the economy in the form of lower transportation costs for shippers, increased revenues to growers, lower prices for consumers, increased employment opportunities at ports and terminals, and the ability for our farmers and manufacturers to compete in tough international markets.

In addition to the transportation benefits from these dams, electricity from Northwest hydropower facilities typically costs three to ten times less (per megawatt hour) than nuclear, coal, and natural gas plants. The Snake River dams produce enough average megawatts to power 800,000 homes in the Northwest and are part of a complex hydropower system that provides 90% of the renewable power generated in the Northwest. The stability of hydropower allows power from intermittent renewables, such as solar and wind, to be integrated seamlessly into the grid. As we work to meet the growing electricity needs in our region, the base load generation of hydropower becomes even more important, especially to meet the requirements of our regional and national clean energy goals and anticipated electrification needs of multiple industries.

The Snake River projects keep our local economy strong and help us retain jobs by providing businesses with affordable, reliable transportation to get goods to international markets. The Snake River dams also protect our unique Northwest environment. Barging has the lowest emissions levels and best safety records of all freight transportation modes. Our Snake River dams provide clean, renewable hydropower energy to keep Northwest homes warm and bright in the winter or cooled when needed during extreme summer temperature events. The clean hydropower of the Snake River Dams are part of the answer to climate change and should be protected. It is imperative that the Corps continue to operate and maintain these projects which benefit so many here in the region and across the nation.

Sincerely,



Heather Stebbings  
Executive Director  
Pacific Northwest Waterways Association (PNWA)



August 8, 2022

Inland Waterways Users Board Meeting No. 97  
Walla Walla, Washington  
August 16, 2022

Stakeholder comments:

Northwest Grain Growers, Inc. is a locally owned grain warehousing and marketing cooperative headquartered in Walla Walla, Washington. We serve over 2,200 members at 35 locations in Walla Walla, Columbia, Garfield and Palouse Counties in Washington and Umatilla County in Oregon. The company generates over \$300,000,000 in annual gross sales of raw agricultural products, mainly wheat, the vast majority of which is exported overseas to Pacific Rim Nations using the Snake and Columbia River transportation system. Northwest Grain Growers is strongly opposed to dam breaching or operational modifications that adversely impact the current river transportation system.

Northwest Grain Growers owns and operates four barge loading grain terminals on the Columbia and Snake Rivers in Southeastern Washington shipping over 40 million bushels of grain, or 1.2 million tons, on the river system to Columbia River District export grain elevators. Two river terminals are operated on the Snake River. Sheffler is located on the Ice Harbor Pool with Lyons Ferry operating on the Lower Monumental Pool. Combined, the Snake River facilities ship approximately 150 barges per year for 550,000 tons. Two river terminals are operated on the Columbia River in the McNary Pool. Combined the Wallula and Port Kelly terminals ship approximately 185 barges per year for 650,000 tons.

The existing river transportation system is the means by which Northwest Grain Grower members access their markets. Any disruption or curtailment in the Columbia and Snake River transportation system would adversely impact our members and the local communities we serve both economically and logistically. Barging bulk grain to the Portland, Oregon export elevators is the most cost effective and environmentally sound method to transport grain from our area to our growers market.

Consideration by the Corps of imposed modifications to the river system operations or structures would have a direct impact on the flow of grain handled by Northwest Grain Growers, its members and the local economies in Southeastern Washington and Northeastern Oregon. The communities, economy, and people most impacted would be in the area along the

MAIN OFFICE: P.O. BOX 310 • WALLA WALLA, WA 99362-0210 • (509) 525-6510 • (800) 994-4290  
WITH OFFICES LOCATED IN DAYTON, WA (509) 382-2571 & ST. JOHN, WA (509) 648-3316

Washington State Highway corridor 12 through the communities of Pomeroy, Dayton, Waitsburg, and Walla Walla along with the highway 124 corridor through Prescott to Pasco. Additionally, the Oregon State Highway 11 corridor communities of Milton-Freewater, Athena, Mission and Pendleton would also be affected.

The impact of the loss of utilizing the existing barge river transportation system to move grain to market is staggering. For our Snake River terminals alone, to replace the volume of grain shipped by barge would require 15,000 semi-loads. This is based on a truck with a gross vehicle weight of 105,500 lbs. capable of hauling a maximum net load of 70,000 lbs., 35 tons, of grain. These trucks are 80 to 85 feet long. Given 250 working days to transport this grain to market, say Portland, Oregon, would result in 60 trucks being on the road each of those 250 days. If they were loaded and shipped during a 10 hour work day, that would be a semi-truck going down the highway every 10 minutes.

If Northwest Grain Growers lost all barge access to the Portland export market it would require 34,200 truckloads of grain to be shipped. Using the largest trucks legally available you would have to load 135 trucks per day. Shipped during a 10 hour work day would generate a grain semi-truck on the I-84 corridor every 4.4 minutes for just our company alone.

Without the barge transportation system to get local grower and landlord grain to market, net farm income would drop due to higher transportation costs with a corresponding economic ripple effect to the surrounding communities.

Currently, the average cost of shipping a bushel of grain from Northwest Grain Growers terminal locations to Portland export elevators utilizing the current barge transportation system is \$14.46 per ton, approximately 43 cents per bushel. To transport that same bushel from an inland terminal location to Portland via truck at current transportation rates would cost an average of \$33.33 per ton, approximately 100 cents per bushel, an increase of \$18.87 per ton or 57 cents per bushel. An increase of 57 cents per bushel on transportation costs would represent a 10% discount in farm gate income to our members, approximately \$22,800,000 per year.

The infrastructure to support unit train deliveries to Portland from this area would have to be built as the existing river terminals are just that, river terminals. They are not in the heart of production zones and cannot economically be converted to unit train loading terminals due to rail access and topography. Those assets for all practical purposes would be virtually abandoned as their use is no longer needed and the financial incentive to deliver grain to them would evaporate. For Northwest Grain Growers, the replacement cost of our four river terminals is calculated at \$120,000,000. Writing off those assets would have a major impact on

the financial position of the company. Replacing those assets with a unit train loading facility at a workable site has been estimated to exceed \$30,000,000 based on the recent construction costs associated with the McCoy unit train loader in Whitman County and the Highline unit train loader in Spokane County. The financial impact for our company with a drop in asset value due to devaluation of existing barge loading terminals and then taking on construction of a unit train loader would be catastrophic. Our members and communities would also experience a negative financial impact as rail rates are at least 40% higher than the current barge rates.

Delivering all of our grain to the export market would require shipping 100 unit trains of 110 cars each per year, or approximately 2 unit trains per week, on an already heavily congested rail corridor down the Columbia River.

The current triad transportation infrastructure of barge, rail and truck now used to deliver bulk grain to Portland export markets is needed as no one or two alternatives is capable of efficiently handling or taking over the loss of any one of the three without severe socioeconomic and safety impact to the rural communities in which we live and work.

Dam breaching or removal, with its negative impact on power generation, irrigation, transportation and navigation would be an economic and environmental disaster without any scientific proof that it would aid in salmon restoration. The dams are only a part of a modern holistic system that needs to be addressed sensibly and as a whole in order to maintain and improve salmon runs.

Should you have any questions or wish for more details on these comments, please contact me.

Respectfully,



Chris Peha  
General Manager  
Northwest Grain Growers  
P.O. Box 310  
Walla Walla, WA 99362  
(509) 525-6510



302 N. Mill Street  
Colfax, WA 99111

T/ 509-397-3791  
F/ 509-397-4758

[www.portwhitman.com](http://www.portwhitman.com)

August 9, 2022

Inland Waterways Users Board  
Institute for Water Resources  
U.S. Army Corps of Engineers  
7701 Telegraph Road, Casey Building  
Alexandria, VA 22315-3868

**RE: Inland Waterways Users Board Meeting No. 97 August 16, 2022**

Dear Members of the Inland Waterways Users Board:

The Port of Whitman County (“Port”) appreciates the opportunity to submit written comments in support of the four lower Snake River dams for consideration during your 97<sup>th</sup> annual meeting.

The Port of Whitman County was formed in 1958 by the taxpayers in southeastern Washington State’s Whitman County for three express purposes:

- Provide access to slack water navigation on the Columbia/Snake River system
- Promote industrial development
- Provide recreational opportunities on the Snake River

Today, the Port owns and operates three on-water port sites—the Port of Almota four miles downriver of Lower Granite Lock and Dam, the Port of Central Ferry on State Route 27 between Walla Walla and Colfax, Washington and the Port of Wilma, located directly across from the Snake River from historic Lewiston, Idaho and Clarkston, Washington. The Port also operates Boyer Park and Marina, a 56-acre full-service marina and campground one mile downriver of Lower Granite Lock and Dam on a long-term lease from the U.S. Army Corps of Engineers.

The four lower Snake River dams have enabled the Port— “arguably the most impactful economic development agency in the region,” according to economist Steve Peterson—to achieve an oversized economic impact on our local economy, while enhancing the area’s quality of life. Our Snake River ports, Almota, Central Ferry and Wilma, collectively employed 536 people, generated over \$139 million in output, created over \$82 million in gross regional product and contributed over \$28 million in total compensation in 2019.

In addition, the Port has not only maintained the only public marina in Whitman County for the benefit of the taxpayers but has also invested significantly in improvements. The Port is currently investing nearly \$6 million in rehabilitating and replacing the original docks at Boyer Park. Over the past 10 years, the Port has also expanded the campground, built riverfront cabins and installed a new

playground structure. Boyer Park and Marina represents a critical recreation site for the region, offering the only public marina within 60 miles, one of only a few places to recreate on water in Whitman County and a gathering place for ongoing community events such as the annual Snake River Family Festival. If the Lower Granite Lock and Dam were breached, the park would lose its marina, and with it, much of its recreational value—as we saw with Red Wolf Marina during the 1992 drawdown experiment. This significantly limits access to recreational opportunities in our community, especially for those without the physical ability, training or means to navigate a powerful river current.

Breaching the Snake River dams would also have far reaching consequences to many in Whitman County who depend on barging as the most efficient, lowest cost, safest and most environmentally conscious form of shipping.

Recent political reports, such as the Murray-Inslee Draft Lower Snake River Dams Benefit Replacement Report, have failed to demonstrate how these losses could be reconciled.

As the Columbia River System Operations Final Environmental Impact Statement (CRSO EIS) found, the four lower Snake River dams are critically important to the economy and quality of life of all Northwest communities, including Whitman County. It is crucial the U.S. Army Corps of Engineers continue operating and improving these federal dams and their world-class fish passage systems.

Sincerely,



Kara Riebold  
Executive Director  
Port of Whitman County