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Committee on Environment
and Public Works

Washington, D.C.

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THE WATER RESOURCES DEVELOPMENT ACT OF 2024: NON-FEDERAL
STAKEHOLDER VIEWS

Thursday, July 20, 2023

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee, met, pursuant to notice, at 9:35 a.m. in room 406,
Dirksen Senate Office Building, the Honorable Thomas R. Carper
[chairman of the committee] presiding.

Present: Senators Carper, Capito, Kelly, Cramer, Boozman,
Ricketts.

STATEMENT OF THE HONORABLE THOMAS R. CARPER, A UNITED STATES SENATOR
FROM THE STATE OF DELAWARE

Senator Carper. Good morning, everyone. I am pleased to call this hearing to order today.

I want to begin by taking a moment to acknowledge our Ranking Member, Senator Capito, other members of our committee, and our staffs on both sides of the aisle as we commence discussions of the 2024 Water Resources Development Act, affectionately known to all of us as WRDA. I want to thank all the folks that are here and those who aren't here, but have a hand in this, not just this year, but over the years, and for your commitment to working together on water resources infrastructure and solutions in a bipartisan way.

As many of you will recall, the biennial WRDA legislation is an opportunity for us to once again consider the policies, the projects, and the programs of the U.S. Army Corps of Engineers. Our most recent WRDA legislation passed the Senate, as you may remember, in 2022 with a vote of 93 to one. I will say it again: 93 to one. To the amazement of many, our bill became the engine that literally helped carry the annual defense authorization bill to President Biden's desk. Ninety-three to one. That is a level of bipartisanship not often seen in Congress these days.

Today, in that same bipartisan spirit, we start WRDA 2024 by hearing from several stakeholders who work closely with the Army Corps of Engineers to carry out that agency's multiple missions. As we know, the Corps collaborates with nonfederal sponsors and stakeholders across the Country, including States, including Tribes, including the

industry associations and local organizations as well. These partnerships maximize the benefits of Army Corps studies and projects and ensure that projects address community needs.

As many on this committee have heard me say more than a few times, everything I do, I know I can do better. I think the same is true for all of us. Today, we are particularly interested in hearing from our witnesses about your experiences, your perspectives on working with the Army Corps of Engineers: what is going well and where there are some opportunities for improvement.

As we begin the WRDA process with this hearing, I can't overstate the importance of collaboration between the Army Corps of Engineers and its nonfederal partners. These partnerships are essential, especially as our Nation continues to experience increasingly powerful storms, more devastating floods, and more intense and frequent droughts due to climate change.

For example, just last week, we witnessed catastrophic flooding in Vermont and upstate New York. I have heard from our colleagues, maybe you have heard from our colleagues too, from Vermont and New York what they have experienced and what their constituents have experienced and are experiencing.

In the first half of 2023, the Federal Government responded to more than 30 extreme weather events, including the record-breaking heat wave in much of the Country. I am told that the temperature on our planet a week ago may have been the highest temperature on our planet ever. That certainly got my attention. I suspect it has gotten the attention of all the rest of us, as well. This is

staggering news when we consider that just 30 years ago, we expected to respond not to 30 extreme weather events, but to maybe two in the course of a year.

As we will discuss today, the Army Corps' projects serve as our primary line of defense against these now all-too-frequent events and help protect vulnerable communities as well as our economy. The Corps' work to enhance and restore our Nation's coastline demonstrates how the agency's mission is critical in the fight not just against climate change, but certainly there, but increasingly powerful storms lead to the erosion of beaches, which make coastal communities more vulnerable to flooding. The Corps safeguards coastal towns from flooding by restoring, or "nourishing," beaches.

Coastal restoration not only helps to stabilize those beaches, but also prevents saltwater intrusion into inland areas, including valuable agricultural lands. Agriculture, along with tourism, are primary industries in my State along with tourism, and they are primary industries in many other States, as well. That is a major reason why, like so many other coastal States, we are so grateful to the Corps for its restoration of the entire Atlantic Ocean coastline in our little State, a massive project that was completed just a few weeks ago, I am told. This morning, we are going to hear a little bit more about that work to restore our bay beaches from Tony Pratt. Tony, welcome; it is nice to see you again.

It is not just the coastal towns that need protection from flooding, though. Last year, a spring blizzard hit North Dakota, leading to the worst flooding, I am told, of the Red River in more

than a decade. That flooding resulted in considerable damage not only to homes, but to businesses and to agricultural fields. The incident could have been even more devastating if not for the Army Corps' flood mitigation measures like the Fargo-Moorhead project, which we are going to hear about here today.

The Army Corps' vital work is not limited to protecting against extreme weather events. The agency and its partners also maintain our Nation's inland waterways, as many of us know, and navigation systems for our ports, which play a critical role in keeping our Nation's economy moving. In fact, 99 percent of our overseas trade moves through channels that the Army Corps of Engineers maintains. That is worth repeating. Ninety-nine percent of our overseas trade moves through channels that the Army Corps maintains. Without the Army Corps, we would be dead in the water, and so would our economy. Literally.

With that in mind, we are going to hear today from the Port of Los Angeles, the City of Angels, which is the largest port in the United States, handling some 20 percent of all incoming cargo shipments to our Country. We are also going to hear about the Upper Ohio Navigation Project. I am a graduate of Ohio State. I have a special interest in hearing about that. Thanks to receiving more than \$857 million from the Bipartisan Infrastructure Law, this project is repairing locks on the Ohio River, which facilitate commerce and support the economies of both Ohio and our neighboring Pennsylvania.

Last Congress, through critical funding from the Bipartisan Infrastructure Law and WRDA authorizations, we made historic progress

in advancing the Army Corps' ability to support infrastructure that is vital to commerce and vital to job creation. WRDA empowered the Corps to better account for climate change, to also support disadvantaged communities, and to improve infrastructure while also protecting our environment.

Having said that, we still have more work to do. Today's hearing will allow us to assess the Corps' progress from prior WRDA legislation. It will also allow us to determine where and how Congress can assist the Corps with our water resources needs in WRDA 2024.

Let me just close by saying that our committee members and our staffs on both sides of the aisle look forward to hearing testimony from our witnesses today as our committee sets priorities for the next authorization.

Three of our four witnesses are in person. We will be joined remotely by a fourth witness. With that, let me turn to Senator Capito. Again, our thanks to you and your staff for helping us tee up this hearing and for all the great work we have done on WRDA.

[The prepared statement of Senator Carper follows:]

STATEMENT OF THE HONORABLE SHELLEY MOORE CAPITO, A UNITED STATES
SENATOR FROM THE STATE OF WEST VIRGINIA

Senator Capito. Thank you. Thank you, Chairman Carper, and welcome to our witnesses.

As the Chairman has said, our hearing serves as the committee's official kickoff for the development of the Water Resources Development Act of 2024. Since 2014, this committee has kept to the biennial schedule of passing bipartisan legislation that authorizes water resources studies and projects and also sets our National policies for the Civil Works Program of the U.S. Corps of Engineers. I look forward to continuing this track record for next year.

This hearing will provide us with on-the-ground perspectives from a diverse group of stakeholders who understand how this legislation advances water resources projects across our Country. At prior hearings, my colleagues and I have heard me describe the successes of our most recent water resources legislation of WRDA 2022. So I won't belabor that point, but instead, simply remind my colleagues that WRDA 2022 authorized a significant number of new projects and studies, made important modifications to existing projects, and included several important policy changes that will help the Corps better succeed in the Civil Works Program.

The legislation also included a number of provisions that are important to my home State of West Virginia. These provisions will facilitate critical flood risk management projects and environmental infrastructure projects across the State.

The staff at the Corps and the Assistant Secretary's office are

hard at work implementing the provisions of prior WRDA legislation, and I want to thank them for their tireless efforts.

Last week, Chairman Carper and I sent a letter to our Senate colleagues soliciting requests for WRDA 2024. I look forward to reviewing the proposals for the committee's consideration in the coming months. We always want to listen to our Senate colleagues and how they are feeling about this as we share with our colleagues.

We do not anticipate the WRDA 2024 will be a policy-heavy bill. Instead, the bill will focus on authorizing new or modifying existing studies and projects, as well as making needed technical changes to prior provisions in order to reflect the intent of Congress. This limited scope will enable the Corps to fully implement the provisions of prior WRDA legislation and help ensure that the agency can be responsive to the water resources needs of all communities.

As I have said previously, it is important that any WRDA bill supports the timely and efficient delivery of water resources projects, while continuing to meet our national priorities. Flexibility is key to ensuring that the Corps can identify and carry out solutions that are tailored to address the needs of each community. Our Nation's water resources challenges are diverse and communities know more about their unique needs than the policy makers here in Washington, D.C.

We must also continue to preserve the role of nonfederal sponsors in the project delivery process and maintain the Corps' focus on its three primary missions: navigation, flood and coastal storm risk management, and aquatic ecosystem restoration.

Last month, the committee held a hearing on one of those missions: aquatic ecosystem restoration. At the hearing, we heard from nonfederal sponsors about three ongoing or completed aquatic ecosystem restoration projects. Our witnesses' project-specific stories helped us understand how we can balance our water resources needs and maximize the use of taxpayer dollars. I look forward to continuing that dialogue.

Today, we will discuss four projects in two other primary mission areas: navigation and flood and coastal storm risk management. The projects highlighted in our hearings last month and today collectively showcase the Corps' really wide-ranging portfolio of projects and their overall value to our Nation. In my opinion, these projects demonstrate the differing needs across the Country, and why maintaining a balance across all of the Corps' main missions is so very important.

While aquatic ecosystem restoration projects produce many benefits, the importance of flood and storm risk management projects and navigation projects cannot be understated, certainly in my region of the Country, for sure, as we are right on that Ohio River. The protection of life and property while bolstering our economy must continue to be prioritized as the Corps develops and executes projects.

We will also hear about the successes that are possible when the Corps and nonfederal sponsors work collaboratively to find innovative solutions. Insight from completed and ongoing projects is important to informing what, if any, modifications are needed to the Corps'

existing authorities in future WRDA legislation.

I am hopeful that we can take the lessons learned from the projects discussed today and use them to advance water resources projects of all types across the Country. As I have said previously, the work of the Corps is more critical now than ever. The testimony we will hear will help this committee as it continues its integral role in improving our Nation's infrastructure.

Mr. Chairman, I do look forward to continuing our partnership on this important legislation. I yield back my time.

[The prepared statement of Senator Capito follows:]

Senator Carper. Thank you for getting our hearing going with a smile on our faces. Thank you.

I thank my colleagues for joining us. We will have others who will join us. We have a bunch of stuff going on on the Floor today, as you may know, and a number of committees are meeting. We will look forward to their arrival and participation in this hearing as well.

My thanks again to members of our staffs, Senator Capito, you and your team, to our folks on the majority side, we are very grateful. This wouldn't be happening without your efforts.

Now, we are going to turn to our panel of witnesses. Thank you all for joining us today, three in person and one remotely, I believe. The first person that I am going to introduce of our witnesses is, I think, joining us remotely. I am not sure where she is. Dina Aryan Zahlan, Dina, where are you today?

Ms. Aryan Zahlan. Good morning. I am in the Port of Los Angeles here in Los Angeles, California.

Senator Carper. Good. It is wonderful to see you.

Dina has worked with the Port of Los Angeles for more than 20 years. Her experience, or rather, expertise has been instrumental, I am told, in many of the improvements at the port over those years.

She is a member of the American Society of Civil Engineers, American Public Works Association, and the Project Management Institute, and was named Woman of the Year in 2022 by the Los Angeles Chapter of Women's Transportation Seminar.

Thank you for joining us today. Please proceed with your statement. Thanks, Dina.

STATEMENT OF DINA ARYAN ZAHLAN, P.E., CHIEF HARBOR ENGINEER OF THE
ENGINEERING DIVISION, PORT OF LOS ANGELES

Ms. Aryan Zahlan. Thank you. Good morning, Chairman Carper, Ranking Member Capito, and to the members of the committee, thank you to Senator Padilla for inviting the Port of Los Angeles today to testify. My name is Dina Aryan Zahlan, Chief Harbor Engineer for the Port of Los Angeles.

As mentioned, the Port of Los Angeles is the Nation's largest and busiest container port. Together, with the Port of Long Beach, we make up the San Pedro Bay Port Complex. San Pedro Bay Port Complex handles nearly 40 percent of all containerized imports and 30 percent of all containerized exports for the United States. Cargo through the complex flows to and from over 160 countries across the globe and reaches every Congressional district in the Nation.

In 2022, the Port of Los Angeles managed 9.9 million container units, which facilitated \$311 billion in trade and nearly 1.6 million jobs nationwide. I have included the trade value impacts to the States that each committee member represents as part of my written testament.

Economic activity at the ports and inland ports generate many direct and indirect jobs, and it is an important source of tax revenue for communities. The more goods and passengers that travel through seaports year to year, the more infrastructure provisions and associated services are required. That is why WRDA continues to be important for the maritime industry.

When our supply chain works well, they operate largely unnoticed,

delivering essential goods, creating jobs, and driving economic growth and prosperity across the Nation. However, this has not been the case for the last three and a half years due to the pandemic. Working with the Biden Administration, Congress, the longshore workforce, and other key stakeholders, we successfully resolved the backlog of container vessels at our Nation's ports, handled record-breaking cargo volumes while implementing environmental initiatives that move the San Pedro Bay Port Complex closer to our zero-emission goals.

A well-functioning supply chain is in the national interest, and effective Federal support to improve the performance of our supply chain is dependent on the passage of the Water Resources Development Act every two years and the Army Corps' full implementation of WRDA 2020.

Across the Country, the Corps plays a critical role, as mentioned, protecting, enhancing, and restoring coastal and inland waterways from climate-impacted flooding and ultimately supports our national intermodal freight system. In turn, a well-maintained freight system supports our economy by lowering cost to businesses and consumers and increasing competitiveness for American ports.

That is why it is important for Congress to consider WRDA biennially to provide consistent support from the Corps for ports that require frequent dredging to maintain their dimensions, which has been critical for moving cargo through the national intermodal freight system. It will benefit ports, harbors, and by extension, the entire National supply chain.

It is equally important to provide the operations and maintenance

of naturally deepwater ports, like the Port of Los Angeles. We don't require major dredging maintenance. However, the Corps does have ongoing projects at our ports requiring some dredging needs and routine wharf maintenance, like the replacement of piles, fenders, decks, and wharf structural improvements. To that end, we appreciate our colleagues at the Army Corps Los Angeles District Office, and their ongoing partnership and collaborative efforts have been crucial to maintaining operations here at the port.

We appreciate the work this committee has done to open the use of the Harbor Maintenance Trust Fund through the passage of WRDA 2020. This landmark legislation included reforms for full use of HMTF revenues, a fair and equitable allocation framework for donor and energy ports and expanded uses that cover our maintenance needs.

As a donor port, each year the Port of Los Angeles accounts for over \$200 million per year in the HMTF revenue yet has traditionally received a small fraction of that return investment. We thank Congress for including in last year's budget and the Corps for including in their 2023 work plan \$56 million for Section 2106, the Donor and Energy Transfer Port Program.

Also, the new expanded uses definition established by WRDA 2020 assisted donor ports like Los Angeles by funding in-water maintenance projects that are needed most. We are able to access the \$26.6 million in unspent Section 2106 funds with this reform. The port has spent these funds within two years and has identified wharf repairs and seismic upgrades, totaling nearly \$2.5 billion of newly eligible container wharf projects for expanded use funding.

Unfortunately, the 2023 work plan did not include the HMTF revenue allocation providing 12 percent of HMTF revenue to donor and energy ports that was adopted by this committee in WRDA 2020. We do look forward to working closely with this committee, appropriators, and the Corps to incorporate all the reforms authorized in WRDA 2020 moving ahead.

When funding is allocated, the port will be able to invest in expanded use operations and maintenance projects, which include repair to damaged concrete wharfs at seven of our container terminals, replacement of deteriorated berthing structures at five marine oil terminals, and to seismically upgrade our dry bulk terminals, our cruise ship, and ferry ship facilities.

When the Port of Los Angeles does well, so does the Nation. Once again, thank you for the opportunity to testify on the importance of WRDA. With that, I will conclude my testimony, and would be happy to entertain any questions from the committee.

[The prepared statement of Ms. Aryan Zahlan follows:]

Senator Carper. Ms. Aryan Zahlan, thank you for that testimony. You are out on the West Coast. What time is it out there this morning?

Ms. Aryan Zahlan. It is a little after 6:30 in the morning.

Senator Carper. What time did you get up?

Ms. Aryan Zahlan. A quarter to 5:00.

Senator Carper. What time did you go to bed?

[Laughter.]

Senator Carper. In any event, we are glad you are here. We are missing you in person but delighted you could join us from afar.

Our next witness is going to be introduced by our colleague from North Dakota, Senator Cramer. He is going to introduce Joel Paulsen of the Metro Flood Diversion Authority in Fargo, North Dakota.

Senator Cramer. Well, thank you, Mr. Chairman and Ranking Member Capito, for having this important hearing. I enjoyed, as always, working with you and Senator Cardin and the other members of the committee on the last couple of WRDA bills, as well as all things infrastructure, evidence that is really is a bipartisan effort.

I was also reminded, as Senator Capito was emphasizing, the two-year authorizations, back to my freshman term in the House with you, Shelley, you were in the House at that time when Chairman Shuster insisted on returning to that discipline of two-year authorizations. We have a lot of things in law that we don't do, but we have stuck to that one really, really well. Kudos again to this committee for that.

I also remember his insistence on forming a public-private partnership program, which is what is going to be highlighted today by

Joel Paulsen, so thank you for the opportunity to introduce Joel.

As you said, he is the Executive Director of the Metro Flood Diversion Authority. We just call it the Diversion Authority, and I will, from now on, encompassing Fargo, North Dakota and Moorhead, Minnesota. The two States, North Dakota and Minnesota, are separated by the Red River of the north. It is a multi-State project for sure.

He has had this position at the Diversion Authority since 2019. He is the first to have it, following an extensive -- this is always fun -- following an extensive nationwide search, we found someone local. Isn't that always the best?

In this role, he oversees the delivery, operations, and maintenance of the nonfederal portions of the Fargo-Moorhead Area Flood Diversion Project, including managing the construction of \$1 billion, 30 miles, of diversion channel to carry Red River flood waters around the Fargo-Moorhead metro during severe floods. Over the decades and centuries, there have been several.

Joel has more than 20 years of experience in engineering, civil works, and traffic projects. He has worked on a wide range of projects, including utility replacements, transportation improvements, levee systems, and community planning. He has served on the Moorhead City Council, almost as tough as being on church council, but that is where the rubber meets the road in politics. The Moorhead City Council was appointed by Minnesota Governor Mark Dayton to the FM, Fargo-Moorhead, Area Flood Diversion Task Force in 2018.

As a member of the task force, he is one of 16 local residents and experts working to find solutions to achieve permanent flood

protection for Fargo, Moorhead, and the surrounding communities. He holds a bachelor's degree in civil engineering from North Dakota State University. Joel, welcome, and we are glad you are here.

Senator Carper. Thanks very much for providing that introduction.

What was the role that Mark Dayton played in your life?

Mr. Paulsen. So Mark Dayton appointed a group of Minnesota residents to basically find solutions for permanent flood protection. We were at a stalemate with a number of mitigation programs and impacts for the flood program, and the governors of North Dakota, Governor Burgum and Governor Dayton came together to basically find a solution, and I was part of that task force.

Senator Carper. That is great. Mark used to be one of our colleagues here. I think he served six years and then became governor. He is a lucky guy.

Senator Cramer. Some people do it that direction. Others go the other way.

Senator Carper. That is what I hear. We are happy you are here. Please proceed with your testimony. Thank you.

STATEMENT OF JOEL PAULSEN, P.E., EXECUTIVE DIRECTOR, METRO FLOOD
DIVERSION AUTHORITY

Mr. Paulsen. Good morning, Chairman Carper and Ranking Member Capito and members of the Senate Committee on Environment and Public Works. My name is Joel Paulsen, and I am the Executive Director of the Metro Flood Diversion Authority in the Red River Valley of North Dakota and Minnesota.

I want to thank you all, and especially Senator Cramer, for inviting me to testify today as you begin crafting the Water Resource Development Act of 2024. Biennial passage of WRDA is crucial to advancing economically significant and life-saving water resource projects like ours.

I would like to first set the stage for the purpose and the need of our project. Plans for a diversion project started after the record-setting 1997 flood just north of us, in Grand Forks, in the area of the Red River Valley. Ultimately, this flood caused \$3.5 billion in damages to the region, and the Fargo-Moorhead community knew that something needed to be done to prevent this repeat of catastrophe.

Our own major flood occurred in 2009, and we continue to live with threat of spring floods annually. The Metro Flood Diversion Authority was tasked with protecting the Fargo, North Dakota and Moorhead, Minnesota communities, and planning began for what would become the Fargo-Moorhead Area Diversion Project.

Overall, this \$3.2 billion project adds water control structures and a 30-mile stormwater diversion channel designed to divert water

around the Fargo-Moorhead community during extreme yet increasingly frequent flood events. Additionally, the project includes 13 levee modifications, 27 lift stations, multiple bridge raises, and other infrastructure improvements.

Completing a project of this magnitude under an expedited time frame was nearly impossible, given the uncertainties of the conventional Federal funding process and the substantial Corps backlog. Again, our threat of serious flooding is annual. We needed to find a faster and more innovative path to project delivery.

Thanks to the great work of this committee, the 2014 Water Resources Development Act provided us with an exciting but untested solution: a new public-private partnership program through the Corps of Engineers. By allowing us to bundle various pots of public funding alongside private financing, as well as providing the MFDA with control over the program delivery, this P3 program has allowed us to save over \$300 million in construction costs and over ten years in project delivery.

With Jacobs as our project manager, we move forward with the P3 process where we leveraged our existing sales tax to attract private financing. In addition, we were thrilled to find other Federal partners to provide over \$800 million in additional Federal financing, namely the USDOT through private activity bonds and the EPA through a WIFIA loan.

As the very first Army Corps of Engineers P3 project, there have been countless small steps and learning opportunities along the way. While I won't be able to address everything in these remarks, I will

leave the committee with some initial thoughts for you to consider for your next WRDA bill.

First, we encourage the Corps of Engineers to develop a user guide for new P3 applicants, a broad "lessons learned" document and a set of discussions to help set the tone and expectations for other nonfederal sponsors.

Utilizing a P3 is easier if done early in the process. This means being able to identify a viable financial model early enough in the process to provide private sector bidders with confidence. The same holds true for environmental permitting and being able to show a low amount of risk to the bidders.

It is also important to know that the process of getting to a final project partnership agreement took hundreds of hours of meetings between our team and the private sector financiers to create a viable financial plan, numerous environmental permits, and corresponding mitigation plans. This required a true restructuring of the Corps' role in planning and delivery of flood risk management projects.

Ultimately, this was a learning process for us and the Corps, and proper education of the P3 delivery model is necessary to ensure future projects continue being a success. Thank you again, Chairman Carper, Ranking Member Capito, and members of the committee for this opportunity. I look forward to your questions.

[The prepared statement of Mr. Paulsen follows:]

Senator Carper. And we look forward to your answers. Thanks for that testimony and for joining us today.

Next, Tony Pratt, who is well-known to a lot of us in Delaware. It is very nice to see you again, Tony. Thank you for a lot of great work you have done over the years and for coming. You are not a stranger here, so welcome back.

Tony is today the Executive Director of the Bay Beach Association, and he is here, again, from the First State. Tony also serves as the Executive Director of the American Shore and Beach Preservation Association and has a long history of service in the First State, including as part of the leadership of the Delaware Department of Natural Resources and Environmental Control.

Tony, you are now recognized for your statement. Welcome. Please proceed.

STATEMENT OF TONY PRATT, EXECUTIVE DIRECTOR, BAY BEACH ASSOCIATION

Mr. Pratt. Chairman Carper and Ranking Member Capito, nice to see you today. Members of the committee, good to see you. It is nice to be here again.

I have been before you a few times in the past and I have always enjoyed it. You have always inspired me to speak from my brain and not from my nose. I am going to do my best today not to read everything here and emulate your style, sir.

I want to congratulate this committee for its return to biennial WRDAs. It is very important to the Nation that that occur. We track that between 2000 and 2014, there were exactly two WRDAs, and by returning to the work of the Nation in these WRDAs, it is very important, and we very much appreciate it. I think the Nation appreciates it.

I want to talk a little bit about a subject, Senator Carper, that you have brought up and Senator Capito too, that the Nation suffers pretty dramatically from natural hazards every week, it seems like. There has not been a week in the last year that we have not seen a hazard of one sort or another, a natural hazard, that has not made the national news. It is snowpack in the winter; it is snow melt in the spring; it is drought; it is heat; it is forest fires. It is any number of occasions. We had last week, and it has been referenced earlier today, the event in Vermont and New York last week. A thousand-year event, it was calculated to be. The Nation has a tremendous threat from natural hazards.

My role here today is to talk about one I have spent most of my

career, 40 plus years, working on, flood risk management along the coast. Senator Carper has been a champion as our treasurer, as our long member of the House of Representatives. We always thought he was a very important person in that position. Two Senators, one representative, it was a very interesting situation. He had such power in the State of Delaware.

He became our Governor and became our Senator and is now our Senior Senator. Served us for many years, and Senator Carper has observed for many, many years the importance of protecting the coast.

The example I wanted to use today in my testimony is the Bay Beach Association's work that has been ongoing, which is protecting dozens and dozens and dozens of miles of Delaware Bay, because through the 2022 WRDA authorizations, this has gone forward.

I use an example of how we should regard the importance of coastal dunes and beaches. The National Wildlife Refuge, Prime Hook Refuge had a breach in the dunes that occurred many years ago. It was not attended to immediately. It elevated the tide back in the wetlands area, resulting in not only massive destruction of the wetlands themselves, but also very critical loss of forest habitat along the edge of the marsh.

Almost even more concerning is how far inland the saltwater went, contaminating farm fields, farm fields that are important for production of food crop as well as important chicken food that is a major industry of the State of Delaware. The poultry industry is a big driver, and we had salt inundation in the fields, agricultural fields that really impeded the ability of a farmer to produce product

for many, many years after that.

We have before us an opportunity in the 2024 WRDA to further the work of the Corps of Engineers. I think that has been observed. This is going to be catching up, I think, on many of the authorizations that have gone out before, the change in policies, new authorizations, but policy changes. I would like to leave you all with a couple of thoughts, two recommendations for enhancing the Nation's defense against coastal storms and sea level rise.

Through previous WRDA bills, Congress provided a sophisticated toolbox of authorities to help USACE meet our most pressing coastal challenges. However, there is a lag in implementation guidance and authorized studies, often never receiving funding. Please do all you can to remedy the challenges of implementation so all of your good work can actually benefit those of us who work with USACE Districts on frontline problems.

Help break the cycle of paying for the cost of hazards after the fact and avoid the damages by investing before the event. This could be helped by conducting comprehensive risk assessments of natural disasters that factor in the aftereffects of disaster recovery. Natural disasters, whether they be floods, storms, fires, tornadoes, earthquakes, extreme heat, or drought are life threatening and life altering events. The post-event cost of human suffering is very real, but is absent from the Federal Government's view on recovery and rebuilding costs.

I want to close my testimony by thanking this committee for its steadfast commitment to our Nation's coastlines, all other flooding

and water resources problems and related threats to homeland security through biennial passage of WRDA. The examples I have shared today may be just for one State. However, you could find similar examples across the Country. Thank you for taking these challenges head on.

[The prepared statement of Mr. Pratt follows:]

Senator Carper. Thank you.

Senator Cardin usually sits right here on my left. He is also stuck with me on the Finance Committee; there, he sits on my right hand. He is one of two Senators from Maryland. As Tony knows, Delaware and Maryland are part of the DelMarVa Peninsula. The "VA" is Virginia, and a lot of the issues that Tony has spoken to with respect to beach erosion and replenishment, the loss of valuable agriculture land, especially, is not only of concern to us, but also to our neighbors.

I would be remiss if I didn't note that one of the people who preceded Ben in the U.S. Senate is a woman whose birthday is today, Barbara Mikulski. I don't know if Barb is out there listening, tuned in or anything, but she is alive and kicking, and we there was a nice reception room in the Capitol that was named after her in her honor last year. She and I were on good terms. Sometimes we weren't, but usually we were. When we were on good terms, she would describe us as DelMarVa buddies. When we weren't on such good terms, she had other words she might use.

[Laughter.]

Senator Carper. Chris, I don't know how you follow this, but let me just say: last but not least, Chris Blanchard, the Treasurer of the Waterways Council and Executive Director of Cooper Consolidated, a firm that handles cargo and provides services on the inland waterways systems. Mr. Blanchard is directly familiar with the importance of the extensive system, including the upper Ohio River. Mr. Blanchard, welcome, and please proceed with your statement. Thank you.

STATEMENT OF CHRIS BLANCHARD, EXECUTIVE DIRECTOR, COOPER CONSOLIDATED

Mr. Blanchard. Chairman Carper, Ranking Member Capito, and members of the committee, thank you for the opportunity to speak today on the benefits of the Nation's inland waterways transportation system and the importance of Water Resources Development Acts.

I will focus on the improvement for inland waterways made through various WRDAs and why these changes help create and sustain jobs, increase efficiency and safety, reduce emissions, and make our inland waterway systems more resilient for decades.

My name is Chris Blanchard, and I serve as the Executive Director of Cooper Consolidated, an asset-based provider of midstream stevedoring, barge, marine, and logistics services. With operations from the mouth of the Mississippi River to Baton Rouge, we provide cargo handling and movements throughout the entire U.S. inland waterway system. I am also treasurer of the Waterways Council, the national public policy organization that advocates for a modern and well-maintained inland waterways transportation system.

The building block commodities that transit the inland waterways include energy products, fertilizer, grain to feed the U.S. and the world, sand and salt for icy roads, aggregate materials for constructions, booster rockets for NASA, wind turbine blades, military equipment, and much more.

Collectively, locks provide cost advantages that incentivize more than 500 million tons of cargo across the entire system of 176 lock sites, extending through 28 States. Nearly 11,000 miles comprise the fuel tax portion of the system on which commercial operators pay

diesel fuel tax that is deposited into the dedicated Inland Waterways Trust Fund. This tax pays for 35 percent of the cost of new construction and major rehabilitation of the infrastructure on the fuel taxed waterways.

In 2014, users of this system successfully advocated in support of raising that tax by 45 percent to its current level of 29 cents per gallon, which is the highest Federal fuel tax currently being paid by a surface transportation mode and the only source of revenue for the Inland Waterways Trust Fund.

While America's inland waterway system is the best in the world, it is not without challenges. Our international competitors have significant efforts underway to enhance their systems and improve their position in a challenging global marketplace. Today, more than 80 percent of our waterway system operated by the Corps is over 50 years old. Some segments are utilizing outdated locks that are unable to accommodate today's standard 1,200 foot long, 15 barge tows, engaging in inefficient and potentially dangerous procedure of uncoupling the tow into two sections, requiring it to pass through the lock in two trips instead of one.

As traffic on the system increases, our locks and dams require more attention and recapitalization to improve efficiency. Fortunately, this committee prioritizes consistent funding for the inland waterways, facilitating the Nation's economic well-being. These investments keep our waterways reliably available to all users, and as we increase our efficiency, the national benefit of the inland waterways will continue to grow.

I want to thank this committee for continuing to prioritize the biennial enactment of WRDAs. As a native Louisianian and avid sportsman, I assure you that your work has not gone unnoticed. The bipartisanship shown through WRDA bills proves that Congress has a significant interest in modernizing our Nation's civil infrastructure and maintaining America's advantage in global markets.

I especially thank you for your diligence and attention to modernizing the cost share formula for inland waterways construction projects. As a result, skilled building trades that construct locks and dams, operators who transit the rivers, shippers of many commodities, and the American economy is stronger for it.

While navigation often dominates the spotlight, it is essential to note that our industry is not the only beneficiary of lock and dam infrastructure. Inland waterways infrastructure strengthens surrounding communities through six critical benefits: navigation, hydropower, flood control, recreation, water supply, and irrigation. We all benefit from the Inland Waterways Trust Fund construction projects and will continue to do so through the helpful policy changes made during the WRDA process.

That concludes my testimony. Thank you for allowing me to be here today. I am happy to answer any questions.

[The prepared statement of Mr. Blanchard follows:]

Senator Carper. Mr. Blanchard, thank you for joining us, and thanks very much for your testimony.

We are going to turn to some questions. I am going to lead it off and then yield to Senator Capito.

First of all, our thanks to each of you. Dina, if you are still out there somewhere, I hope you are, we appreciate your joining us remotely. Your testimony is very much valued, and we are grateful to receive it.

Each of you understands the critical work of the Army Corps of Engineers to all of our States throughout the Country, from providing for navigable waterways, to protecting our communities, to addressing flood risks, and restoring our degraded ecosystems. We appreciate your insights. You have nonfederal stakeholders. That is very valuable.

My first question is a question for each of you. I am going to ask each of you to take a shot at it, if you would. What has been your experience in working with the Army Corps in general? How have they supported you and your efforts and your water infrastructure needs, and maybe an area or two where they might do a little better?

Mr. Paulsen, do you want to lead off? Again, experience working with the Corps, how they have been supportive, and maybe what could they do a little better?

Mr. Paulsen. Absolutely, Mr. Chairman. Overall, our partnership with the Corps is very strong. With the public-private partnership approach, it did require the Corps to change the way that they approach projects. It required them to provide flexibility, both in

permitting and contracting actions. Ultimately, the relationship was one of risk management relationship. The Corps continued to take on the components of our project that were the most risky and maintain the Federal integrity.

The nonfederal sponsor chose to take things that were marketable for private developers and the private industry and move towards that direction. It is really split delivery type of concept. In order to do that, you need to have a very strong partnership, so there isn't a day that goes by where we don't coordinate with our colleagues at the St. Paul District to continue to further move this project along.

I would like to say that this absolutely is one of the very rare projects that the Corps has that is under budget and on schedule, and the result of that is the measures that are put into place and the pressures provided by the public-private partnership.

To answer your question, Chairman, our partnership is very good, and there are certainly some lessons to learn along the way. We had rocky times, but we always found ways to work through those. We did spend a lot of time with Corps policy folks here in Washington as we developed the concept of the public-private partnership, as well as the P3 Office at the Corps of Engineers, headed by Aaron Schneider.

Senator Carper. Good, thank you for that.

Tony, same question. Maybe share a little bit, if you will, some of your experiences in working with the Corps, not all of them, but maybe one or two, and maybe highlight an area where they have been very supportive and maybe an area where they could do maybe a little better.

Mr. Pratt. I am very happy to answer the question.

I have had many years of experience, and I have had very, very positive one-to-one relationships with Corps individuals, both in the Philadelphia District, North Atlantic Division, and also at headquarters. I think the individual interactions have been top notch, and I have great respect for those individuals.

If I were to make one comment about ways in which the Corps could probably provide better services, is looking at some of the bureaucratic processes that are imposed upon them. I think the biggest issue that comes up in my mind is the stove-piping of some of the missions, that there are theoretical talks of looking at navigation needs and looking at operations management, sediment supplies and how they could benefit flood risk management, and natural resources.

There still seems to be a lot of stove-piping as where the budgets lie and where they could do better in providing an overall service, but individually, great. I think there are some business lines that need to be looked at in a more modern way.

Senator Carper. Thank you.

Mr. Blanchard, please, same questions.

Mr. Blanchard. Our organizations also enjoy a positive relationship with the Corps and a partnership. A great example of when our industry and the Corps worked together was last year. We experienced a significant drought on the inland waterway system, which impacted the ability to move cargo efficiently. The Corps, along with the Coast Guard and industry, coordinated the timely deployment of

dredges to address low spots in the river that would enable us to continue to move cargo as efficiently as possible. It wasn't an ideal situation, but they were a great partner in working with us to ensure that cargo kept moving and that we did not get to an all-stop position.

With that said, certainly, a lot of the capital projects for inland waterways that the Corps works on have oftentimes been over budget and have taken longer than anticipated, so I think there is definitely room for improvement there. We have plenty of opportunities there for improvement, but I think someone else would be most qualified to give specifics. We can certainly follow up with your staff on specific ways to improve that.

Senator Carper. Good. Okay, thank you.

Before I turn it over to Senator Capito, let me turn to Ms. Aryan Zahlan for your responses to the same questions, please. Thank you.

Ms. Aryan Zahlan. Yes, thank you, Senator. Our relationship with the local Corps office is strong and cooperative, and we are confident it will continue to be so.

We do have a request, and we believe the intent of the committee of WRDA is to direct the Corps to allocate the 12 percent for the HMTF revenue to donor and energy ports was clear. We are hoping to work with the Appropriations Committee and the Corps to implement this provision. We would like to be able to utilize those funds and allocations to advance our critical berth maintenance projects and other in-water improvements.

Senator Carper. Thanks for that. Senator Capito, please.

Senator Capito. Thank you, Mr. Chairman.

Recently, the Army Corps leadership said that your project, Mr. Paulsen, would have taken ten additional years to build if it had used the Army Corps' traditional approach rather than the P3 approach. I want to dig a little bit deeper on this, because this could impact what is going to happen in 2024.

You also mentioned it came in under budget, and that is interesting in times of supply chain challenges that a lot of projects are seeing. If you could help me, I know you have the Federal partner, you probably have State and local. Who are your other partners that are nonfederal?

Mr. Paulsen. Thank you, Senator Capito. Our private developer, through the P3 public-private partnership model, is called Red River Valley Alliance. It is a group, a joint venture, of three world-class contractors that came together. We did select them through a competitive process, and they were the best suited to meet our needs.

They also bring their own financing to the table, and that financing provides them the incentive to meet schedule, because they have to pay back their lenders, and we do not pay them until they complete whole components of the project. Components could be a bridge; it could be a drain inlet; it could be something along those lines.

We get the benefit of getting that piece of infrastructure fully complete before we ever pay them a dime. That provides them incentive, of course, to stay on schedule, because they need to meet those milestones in order to repay their lenders.

That impetus and that incentive then also applies pressure on the Corps, because this is a comprehensive project. We can't operate unless the Corps is completed with their components and the public-private partnership is completed with their components. It is really a joint venture between this private developer. Our role is really to oversee the private developer to ensure quality and that they are doing everything appropriately, and then coordinating issues with the Corps.

That doesn't happen during traditional delivery projects. When you do a design bid build, there are a lot of inefficiencies, components are broken apart. There is a lack of innovation from the contractor, who is also the designer, on our public-private partnership.

So through those enhanced efficiencies and the pressures of the private financing, it has really helped to keep our project on schedule. That is of utmost importance for us, of course, when we are under the threat of annual flooding. Any one given year could have dire consequences. Schedule is of utmost importance for us, and this model certainly has proven that it can deliver massive mega-projects on schedule.

Senator Capito. Right. So you mentioned, as on the to-do list of 2024 for the Corps, or I don't know that it would need to be legislatively so much as their best practices, because trying to figure all of this out, that is why I wanted to know, who is this partner, and how did you work that out? So, are there other P3 project with the Corps active right now that you are aware of? I am

certain they are calling you and trying to figure out how you did this.

Mr. Paulsen. Absolutely. It is my understanding that there are a few additional projects that have been authorized and could use P3. There are no other projects that are under construction, however, so we were the first project to go through project development procurement with a private contractor.

Senator Capito. How long did that take?

Mr. Paulsen. The procurement process lasted about four years. However, we were hampered by some permit issues along the way, and we did have to suspend the procurement for about a year.

Senator Capito. I am going to assume that is Federal permitting?

Mr. Paulsen. Some of it was Corps. Some of it was State permitting.

Senator Capito. State, okay. Well, that is a repeating theme in this committee.

[Laughter.]

Senator Capito. Let me ask you this, everybody. I wanted to ask everybody the same question with the remaining 40 seconds, so I will just start with you, Mr. Pratt. Are there additional authorities that you think the Corps would need to carry out projects as of what you have? It is a little bit of what the Chairman just asked, but I guess I am asking for more specifics, here.

Mr. Pratt. I don't know that it is the authorities, per se, but to be more of the will of Congress for the Corps to look at ways to optimize the work that they do. I don't know if that is specifically

within an authority or not, but it, to me, I have referred to it just a moment ago as sort of the stove-piping of the missions of the Corps sometimes don't mix as well as they should.

I think the ASA's office right now is trying to strive to correct that, and the PRNG that is coming out will also look at the benefits, counting the benefits in a better way, that we might be able to count how the benefits from a navigation project can supplement flood risk management or an environmental enhancement project, because of sediment supply.

Senator Capito. Right. Well, the Corps is an Army, and stove-piping is sort of a problem over there, DOD, in certain times and certain places. I think that is excellent.

One of the other issues that we have run into again, onto the permitting and certainly, Mr. Blanchard, you may know this, I know we have a project going on on the Ohio River right now. It is not just the Corps; it is Fish and Wildlife; it is State DEPs, and the better coordination of those, we have tried to formulate through the highway program, One Federal Decision, where there is a lead agency.

Obviously, in the Corps projects, the Corps is going to be the lead agency, but I mean, are you finding this an issue as well, the moving from agency to agency while the Corps is spearheading this, or is this not an issue?

Mr. Blanchard. Yes, ma'am. We find the same, that there are continued challenges when there are so many agencies involved in the permitting process in general. There is a good reason for a lot of that, but there certainly is an area of improvement where there could

be more coordination so that you could move the timelines up, because as the timelines continue to get added, the projects only get more expensive, and certainly, we have seen that here most recently in the economic environment that we have experienced lately.

Senator Capito. I would say, just, finally, a big takeaway here is that the P3 projects come in on time or even earlier and under budget. I think that is a welcome relief when you are trying to stretch Federal dollars. Thank you all very much. Thank you.

Senator Carper. Senator Capito, thank you very much. Senator Cramer, thanks again for joining us and for being a valued member of this committee. Please proceed.

Senator Cramer. Thank you, Mr. Chairman. Thank you to all of you. This has been fascinating. I had stove-piping running through my head ever since you brought it up, because I think it illustrates a lot of the challenges.

Mr. Paulsen, in talking about inflexibilities and the challenges, and stove-piping just within the Corps, you have a really big stovepipe situation where you do have, some of the value of the P3 is that some things are not so Corps or other things have to be, particularly the river itself and how that outlet gets built.

Describe a little, give us an example, I think you mentioned this to me earlier, an example of where the Corps' inflexibility, perhaps especially timing, didn't synch up with the other part of the project, and what the consequence of that is. I think, ultimately, this could be an area where maybe legislatively or policy-wise, we could help. You gave me a \$3 million example, I think, earlier in our meeting.

Mr. Paulsen. Absolutely, Senator Cramer. So, during procurement, it is imperative that you define the project with performance-based specifications such that the private industry can bid the project appropriately and they can price the risk, if you fail to provide criteria for portions of the project, which, in this case that you mentioned, occurred.

So, we have two aqueduct structures where we are actually taking a river over the top of the diversion channel. Those aqueduct structures have to maintain biological conductivity in the river, and, of course, appropriate velocities for fish passage. Prior to the procurement of the private developer, we were not able to get criteria from the Corps. It was very difficult. Nobody had built one of these structures before, and so folks just didn't have a user manual to say, this is what the velocities need to be.

It wasn't until after procurement that the Corps provided us with guidance on velocities for the aqueduct structures. What that resulted in was a \$3.5 million compensation payment to our developer because they had to go back and retool their designs and compensate for the criteria that we gave them.

That change was borne by the nonfederal sponsor. That was not Federal dollars. So, from our standpoint, the more comprehensive you can be upfront during the bidding process, it allows the private developers to appropriately price that risk.

Senator Cramer. One of the things I would say in defense of the bureaucracy, and I don't say that very much, is that sometimes the bureaucracy worries about how we will respond to a mistake. In other

words, we oftentimes punish the bureaucracy if we see something, and I think our attitude toward innovation itself is a little bit of the problem.

I would say this, and Shelley said so as well, when you combine a natural resource bureaucracy and a military bureaucracy, you have a really big bureaucracy, and you have a lot of complications. One of the challenges with the Corps, in my view, is that they are sort of an agency without an agency.

On a different Corps project that I worked hard on with General Semonite and trying to identify what the problem was in the bidding process for major infrastructure, I insisted on seeing the various proposals and then the responses, the bids. So we would do that in secret. I had to have lawyers all around me. It was crazy.

One of the things I noticed, and I asked a Corps engineer flat-out, it seems to me you are anti-innovation, that when a contractor responds to an RFP and provides a different way to do something, you reject it just because it is a different way, and he looked right at me and said, we believe innovation is risk.

So, it gets "risked" right out of the, it is something that could be done twice as fast at half the price. They won't do it because they still have to use those other machines that do it slower.

All of that said, I think some of this is, we as policymakers need to encourage it. I don't know how we do it from a policy standpoint, but we have to find a way forward. Well, we ought to find a way, because we need to do more things with the same amount of money or less to build on those incentives in the public sector that aren't

natural. They are natural in the private sector, and P3s are a way to do that. But having said that, any thoughts you might have on how we could encourage or inspire the Corps, incentivize them the right way would be great.

Mr. Paulsen. Absolutely, Senator Cramer. Our project is all about innovation. I mentioned previously that we use performance-based specifications. That allows the private industry to come up with the best way to build our project, the most efficient way to build our project. Now, that obviously challenged the Corps to start building a project of our magnitude without having final specifications and drawings. It really kind of caused some concern.

We did see flexibility from the Corps in allowing us to move forward with them as an observer on our portion of the project, which is P3. We have seen an immense amount of innovation come from the private contractor, which reduces costs, reduces schedule, and provides the level of quality that we are looking for. It really is the best of all worlds.

So if we want innovation, we have to have performance-based specifications, not prescriptive specifications, which the Corps is generally accustomed to.

Senator Cramer. It is a clash of cultures. Thank you.

Senator Carper. Not at all.

Senator Ricketts, thanks for coming back. You are up.

Senator Ricketts. Great, thank you very much, Chairman Carper and Ranking Member Capito, and to our witnesses for being here today.

As I have discussed in this committee before, in the State of

Nebraska, we have had some challenges with the Army Corps of Engineers. One of the challenges with regard to permitting, we had one of our natural resource districts looking to raise some levees. They weren't trying to build new levees; they were trying to raise levees.

The Army Corps took six years to get them their permit on this. Because the Army Corps took six years, we had a -- if they had just given us the permit, say, in four years, we would have been able to raise the levees.

In 2019, though, we had a flood that was a 500-year flood and damaged Offutt Air Force Base and caused nearly a billion dollars in damage. Six years is way too long to get a permit done. Like I said, even the horrible service of four years would have allowed us to raise those levees and mitigate that damage. Getting permits done in a timely manner is an important thing.

I will also note that with some new leadership at the Army Corps of Engineers, we have a much better relationship in the State of Nebraska. I appreciate that relationship being better, because I think it is to the benefit of everybody. One of the things the Army Corps of Engineers is doing is they have their permit finder database they are developing. My team has been going through that, and it seems like, in some cases, it is already outdated and is lacking important updates. Of course, if we are going to have tools to be able to track all these projects, these tools must be updated so that we can do that.

I was going to ask all the witnesses what your experience is with

regard to the permit finder database, and do you find that it is something that has been updated, that is useful, and what sort of things need to be improved on, if any, from the Army Corps? Mr. Paulsen, we will start with you.

Mr. Paulsen. Thank you, Senator. I do not have experience using that database, but I can tell you, one thing that was very advantageous for our project was the Corps allowing us to pursue some permits and do some of the NEPA requirements.

Our project wasn't always a P3. We had initially decided to do a traditional Corps project. It wasn't until this committee allowed the Corps to use the P3 and authorized them in the 2014 WRDA that we changed, and we started to look in that direction. When we did that, we started to look for flexibility with the permitting through the Corps and through the State agencies.

Another tactic that we used is having the Corps allow us to coordinate with the State agencies versus the Corps coordinating with the State agencies. There tended to be some level of, I don't want to say mistrust, but inefficiency between the Corps working with the State agencies versus the nonfederal sponsor, who is on the ground. They know the area better. We are the ones that are going to be taking care of the environment as it relates to our project long-term.

So that has been very beneficial, both from the State permitting in Minnesota and North Dakota, and has really expedited it and removed the risk of permit schedule impacts that you see so often on other projects.

Senator Ricketts. Great, thank you. Mr. Pratt, what about you

and your experience in the Army Corps' permitting database?

Mr. Pratt. I have not used the database. I can't speak to it directly. I will say that I retired five years ago from the State of Delaware as the administrator's role in waterway management. We had a number of projects that came before the Corps for permitting and felt the exact same pain. I can't say that we ever had a project that took six years in permitting. Certainly, two to three were sometimes the case.

It is a nut that needs to be cracked. We have seen a lot of discussion about it for decades, and no one seems to know exactly how to remedy it. Sometimes, it is lack of personnel. It could be the tax on the road. It could be consulting other agencies. It could be unanswered data that goes into the application itself that the Corps sits on and says they need more information. We welcome those conversations going forward, but I have not seen the database and can't comment on it.

Senator Ricketts. Okay. Mr. Blanchard?

Mr. Blanchard. Thank you for the question, Senator Ricketts. Unfortunately, I am not familiar with the particular database you mentioned.

Senator Ricketts. Do you have any other experience or suggestions on how we can improve the permitting process in general with the Army Corps?

Mr. Blanchard. Sure. I think one of the tangible things that our group has seen that was effective at one point was allowing the Corps to have continuing contracting authority. That is something, I

believe that was removed from their toolbox at some point in the past. That is one tangible suggestion that has been brought up.

There are other folks with our group that would be more familiar with some of those daily interactions on the permitting side. My knowledge base is generally more business operational.

Senator Ricketts. Okay, great. Thank you, Mr. Blanchard.

Senator Carper. Thanks for those questions. We are going to be joined, I think, by at least one more member. Senator Kelly is trying to join us.

Senator Capito is also a senior member of the Appropriations Committee, and they are doing some good work right now, so I am going to yield to her for anything else she wants to say before she puts on her Appropriations hat.

Senator Capito. Thank you, Mr. Chairman. I want to thank the witnesses, and I want to reemphasize not just to those in the room today that this is a process we are beginning very early so that we can be successful again.

As Senator Cramer said, it is something that I think we are all dedicated to, completing this in the two-year time period. So I would make sure that our fellow Senators are listening to their Corps projects and to their WRDA projects and improvements that can be made so that we can incorporate these into what I think will be an aspirational, good 2024.

The other thing is, we are really good here at patting ourselves on the back. But I will say with some of the improvements that we have made over the last two to four years, we are seeing things

changing and projects getting done and getting to completion. These are not inexpensive projects, as you know. They are very, very expensive, but they are life-changing, so thank you all very much.

Senator Carper. Senator Capito, good luck. Thanks again for being a big part of today's hearing.

I am going to go ahead and ask maybe another question or two. I expect Senator Kelly will show up very shortly. If he does, I will yield to him.

In my question here in the second round, we will go to Tony Pratt. It deals with the shore protection. I am concerned that climate change, which has been talked about here today, and frankly, talked about everywhere I go, is driving sea level rise and driving land subsidence, it is driving flooding in our State and in a bunch of other States up and down the coast of our Country.

During the time that we are in this hearing today, we will be here probably for close to 100 minutes, in the State of Louisiana, they will lose a piece of land to the sea every 100 minutes the size of a football field. It wouldn't take too much of that for us to lose all of Delaware. The size of a football field in Louisiana, so that certainly has our attention. I know it does for a lot of other coastal States.

We have been joined by Senator Kelly, who is trying to be in three places at once today. I am glad you could be here with us today. If you are ready, I will yield to you for any questions you have. You are welcome. Thanks for coming.

Senator Kelly. Thank you, Mr. Chairman, and thank you for

holding this hearing. It is so important to get this WRDA process complete.

I am the Chairman of the Transportation and Infrastructure Subcommittee, which has jurisdiction over the Army Corps, so let me just say that I look forward to working closely with you and Senator Capito and Senator Cramer to make sure that we continue the tradition of the past decade of passing a WRDA bill every other year.

For me, I am hopeful that this bill can take some positive steps in the right direction to ensuring that the Army Corps of Engineers has the tools it needs to do a number of things, including responding to drought conditions in the western United States, including through updating the flood control curves to account for drought conditions. We talked about that at a previous hearing.

But also to effectively collaborate with Tribal communities to address important water challenges that they are facing and provide some better technical assistance and planning support to small and rural communities. I know we have a lot of hard work ahead of us, but I know we can get this done.

With that, I just want to start off with a question for Mr. Pratt. While Delaware coastal projects and Arizona drought response projects are not the same thing, I do want to ask about your perspective on partnering with the Corps on projects which are not within the agency's typical flood control mission.

Mr. Pratt, can you speak a little bit more about how the benefit to cost ratio that the Corps uses to decide which projects to fund has a bias for certain types of infrastructure as compared to some others?

Mr. Pratt. How much time do we have today, sir?

[Laughter.]

Senator Kelly. On this, a minute.

Mr. Pratt. Okay. I will make it very brief. That is a very interesting question. If you look at the Corps of Engineers historically, they were developed, obviously, as military engineers, and they became, obviously, in this Country, a civil works mission centered around water, water being either supply or oversupply in the form of flooding.

When they get to your State's interest, that really beings to tilt the mission a little bit to something else. Delaware has the extreme opposite problem you have, which is we are very wet, and we are getting wetter all the time. You are dry and getting dryer all the time. The Corps would have to sort of, and I have been advocating today earlier in some of my responses, that the Corps needs to be evolved and look at things in a new light.

The principal regulations and guidelines that are in the works and coming out at some point, they have been long delayed in getting to the Corps as a guidance document. When that comes out, looking at the benefits that accrue from the work that they do, they are primarily and fundamentally an engineering outfit. They then attend to their engineering with economics and other expertise.

But I think that when we have water supply questions and issues, engineering does play a role in that, and the PRNG and the emphasis on benefits that would accrue from their work could possibly be an avenue for an expansion.

Senator Kelly. Do you think it is biased towards certain types of infrastructure?

Mr. Pratt. I think it is biased toward their historic mission, very decidedly so. I think their historic mission has been, in the Civil Works branch, either water supply directly through dams and levees, not levees, but navigation, water supply, and then flood control. I think they are very much biased in their historical approach to things, yes.

Senator Kelly. Well, thank you. In my remaining minute, I have a question for Ms. Aryan Zahlan, who I think is testifying remotely.

Senator Carper. You can take more than a minute.

Senator Kelly. First of all, thank you for attending. I am the first U.S. Senator member of Congress that ever went to the U.S. Merchant Marine Academy. I feel that I bring sort of a unique perspective to the importance of our domestic maritime economy.

I believe that Ms. Aryan Zahlan discussed in her testimony the value of reforms to the Harbor Maintenance Trust Fund, which is managed by the Army Corps to help American ports invest in our infrastructure. This infrastructure is important because it helps us stay competitive with our foreign adversaries in this space.

So could you speak a little bit to the national and economic security benefits which come from having a well-funded modern port infrastructure, and are there steps we could be taking in the next WRDA bill to further enhance those benefits?

Ms. Aryan Zahlan. Thank you, Senator, for your question. As you mentioned, the supply chain is very important. Our improvements and

the harbor maintenance tax that we provide to the Nation is crucial for us to utilize with the Army Corps in order for us to do improvements to our ports and berths and in-water structures. Our Country's ports are vital to the economy, the national economy, and historically, our six donor ports have funded port infrastructures across the Nation through this tax. Donor ports account for 50 percent of all harbor maintenance tax revenue, yet they receive less than 2 percent in revenue and return.

We are pleased to work with Congress to ensure that the donor ports receive more than their equitable share. We would like the framework to direct the Army Corps to allocate the 8 percent annual HMTF appropriations to donor ports and the 4 percent to our energy port transfer. We are embracing the definition of the expanded use to include additional in-water maintenance projects and seismic upgrades.

Senator Kelly. Well, thank you. This is an issue that is not just a domestic trade, domestic infrastructure issue. It is also connected to our national security. It is one I have spoken about in one of my other committees on the Armed Services, about having a maritime industry that works for our Country and our national defense.

With that, Mr. Chairman, I thank you again for holding this hearing. I look forward to working with you to get this bill across the finish line.

Senator Carper. You bet. Take just a minute. Some of the other members might have been talking about the kind of weather that they are experiencing in their States. You and I talked a little bit about what we all are witnessing in Arizona. It is certainly challenging.

Senator Kelly. Yes, it is pretty hot.

Senator Carper. Give us a minute or two, if you would.

Senator Kelly. Yes. Well, it is always hot in the summer. Let me start there. We are used to dealing with the heat.

But what we have seen here over the past couple weeks is, I think we are now at 20 days if today gets, I haven't checked, but if it gets above 110 degrees in Phoenix, I think that will be about 20 days in a row, which means where Gabby and I live in Tucson, it is probably around 105 or close to 110. If you are a senior or folks that are homeless, this is a really, really challenging time of year.

Now, the rest of the year is Arizona and Phoenix and Tucson and other places, we have the best weather in the Country. I think this is manageable at this point. We have mayors across the State that are taking rather proactive steps to address this issue of heat islands in cities. There are ways to do that, you know, planting more trees, material that you can put into pavement to mitigate some of the ability for the pavement to absorb and then radiate heat back.

So, we are making progress on this. It probably would have been better if we started 20 years ago. I think it is going to be important for this committee to recognize that the State of Arizona has some climate-related challenges. It is not, as we see today, it is not just water. It is heat, but more heat results in more evaporation, which then compounds our water issues.

Senator Carper. Thank you for that.

Senator Kelly. Thank you.

Senator Carper. Thanks very much. We would like to hear from

you again, and then I will wrap it up if no one else arrives. Go ahead, Senator Ricketts.

Senator Ricketts. Thank you, Mr. Chairman. I would note, Senator Kelly, you know, Nebraska is having a great week this year. It is 80 degrees; we have rain. You could move to Nebraska.

Senator Kelly. And then you get a blizzard.

Senator Ricketts. Well, okay, yes. We are known to get blizzards in February. That is true. Something that they don't get in Arizona.

One of the things that we had been experiencing and are still in the process of experiencing for the last couple of years is a drought. That also impacts, in different ways, inland transportation and so forth.

I would like to ask some of the witnesses here just what steps can Federal agencies or Congress do to help mitigate some of the impacts of droughts and low water events on our inland transportation. Actually, I think I would like to start, since I ran out of time last time, with Ms. Aryan Zahlan from the Port of Los Angeles. Since California has had a drought, did you see any impacts on that in the Port of Los Angeles, and do you have any suggestions on what we might be able to do to mitigate those?

Ms. Aryan Zahlan. That is a challenge all of us are facing across the Country. You are absolutely right, Senator. We are proactively embracing resiliency with climate change and sea level rise. We conducted a sea level rise adaptation study, but at the same time, we are also looking for ways that we could utilize drought-

tolerant opportunities for our construction methodology and for the port itself.

We are currently revisiting the study also to ensure that our infrastructure remains resilient. But drought is a challenge that we are all facing, and we are looking at ways that we could incorporate new technology, innovative thinking with regards to embracing the new world, as they say, with climate change.

Senator Ricketts. Mr. Paulsen, what about North Dakota? I know that, again, you are an agricultural State; transportation on waterways is important. What are your thoughts with regard to when we have droughts and low water events on what we can do to mitigate that, and what are things that Congress might be able to do?

Mr. Paulsen. Thank you, Senator. Our project is a flood protection project. However, we are in the unique position in North Dakota where we have too much water in the spring and not enough water in the summer.

We are actively working on a project to bring Missouri River water to eastern North Dakota. However, that is fraught with numerous permit challenges and issues in order to develop that as a water source. If you were to go back and look at our flood control project, there would potentially have been the ability to store some of that flood water with our project for the summertime when there may have been a drought.

I think it is innovative approaches like that. If we are going to be doing a mega-project that is related to flood protection, can we also address other natural disasters such as drought and provide

resiliency within our project for those sorts of things. It is a unique area, similar to your State of course.

But those are the types of things that I think that need to be talked about and looked at. Yes, we currently are trying to develop additional water resources within the State. However, permit issues are challenging.

Senator Ricketts. Do you do a lot of transportation of your agricultural products by water?

Mr. Paulsen. North Dakota, not so much. We are the beneficiary of transportation on the Mississippi. Goods come up to Minneapolis, St. Paul, and obviously are shipped up to the Fargo and the Bismarck area in North Dakota. The water transportation on the Mississippi is very important for keeping cost of goods low and supply chain intact.

Senator Ricketts. Mr. Pratt?

Mr. Pratt. Unfortunately, in my experience, I don't have any drought experiences whatsoever in Delaware. A drought in Delaware is probably six weeks without rain, and that is about as bad as it gets.

[Laughter.]

Senator Ricketts. Okay. Mr. Blanchard, same question.

Mr. Blanchard. Thank you, Senator Ricketts. Our industry, the inland waterways industry, is severely impacted by both low water drought conditions and also, I think someone mentioned earlier, the 2019, we had the opposite. We had an extreme high-water situation. That goes down and it really impacts the competitiveness of U.S. trade, because when there is low water, it means less cargo can go onto a barge, and so it takes more barges to move the same amount of

cargo. When that happens, the cost to move those goods goes up, and it hurts the competitiveness, whether it is the U.S. farmer or imports that are going to steel mills throughout the U.S. It really has an impact.

Thankfully, our industry is extremely resilient, and they worked really well in 2022 with the Corps to ensure that as we experience that severe drought, that cargo was impacted, the shipment of goods was impacted, but it did not come to a halt.

Senator Ricketts. So, do you have any suggestions though, on what we can do, what the Army Corps can do when we have low water events to be able to make sure that we can continue to use that transportation infrastructure?

Mr. Blanchard. Further advancement with the Corps with their dredging throughout the river, sort of some pre-contracted dredging, where they have the ability to have dredges when we can see. Traditionally, droughts don't show up overnight, and so there is a little bit of having more foresight and the ability to anticipate and to pre-contract dredging needs so that where there are spot areas where the river is low, where they are impassable, the Corps is prepared with contractors to address those needs to allow movement of cargo to continue.

Senator Ricketts. Great. Thank you very much. I appreciate it, Mr. Chairman.

Senator Carper. Thank you for those thoughtful questions. Thank you for your faithful attendance. Senator Ricketts and I are a couple of members of the Senate who join together every Thursday right around

noon for a Bible study. We have two Navy captains here on this committee, Senator Kelly and myself, two retired Navy captains, but we have an Admiral who is our chaplain of the United States Senate. He is good enough to host something for us. It gives us a lot of food for thought as we prepare for our other responsibilities here. Thanks again for joining us. You are welcome to stay for as long as you want. If not, I will see you later today. Thanks.

I want to come back to my question to Tony Pratt, back to shore protection. I will just repeat myself, if you don't mind, and I might have another question or two for the panel.

Tony, again, I am concerned that climate change is driving a number of things. One of those is sea level rise. It is driving land subsidence and it is driving flooding in our State and other States up and down the East Coast, the Gulf Coast, and West Coast, as well. WRDA 2022 included shore protection authorities, as you will recall, to support coastal resilience, including the authorization of the dredged material utilization project, also known as the Bay Beach Restoration Project that you testified about earlier today. Would you explain for us today the significance of the shore protection authorities to the economy of our State of Delaware, and how this project might benefit the First State and its people?

Mr. Pratt. The movement toward better regional sediment management and beneficial use of dredged material is exactly the kind of thing we have been talking about. Delaware benefits from this already, to a degree, but certainly could benefit further from it. The 2022 WRDA authorized Bay Beach protection, basically with

materials that could come out of the main channel, maintaining the main channel of the Delaware River and Bay to a 45-foot depth. There was capacity within some of the original deposition sites that can also be tapped out so we create better capacity later on. That is a regional sediment management kind of concept.

The Corps is the dual authority to maintain navigation channels and do something with the materials that they dredge out. We used to use that harbor where the spoils, dredged spoils, we now know it is as dredged materials, because for the most part, it does not contain, in Delaware, contaminants of any sort. It is either silt, which would be fine material, good materials for wetlands restoration, island creation, where we lost islands through erosion over time.

Looking at the dual responsibilities of the Corps in reducing the effects of sea level rise on both natural habitats and also man-built habitat and infrastructure, the use of utilizing any dredged material in a beneficial way should be the order of business each day rather than the exceptional demonstration-type project.

This does require crossing the missions of the Corps. When a navigation manager has a certain amount of money to dredge a certain distance of channel, the least cost option for disposal of that material has historically been the way to take it on. Looking at the fact that it could benefit a flood risk management component of the Corps, people that sit in another hallway within a Corps district, or it could enhance the environment through restoration or enhancement of wetlands that are deteriorating, sometimes cross over budget lines and mission statements.

So as we progress, and I think the 2022 WRDA really began to fully address this and I think there is some more work to be done, as institutionalizing this as the practice has taken on all together. There is a lot of need in Delaware. We know that the beaches are succumbing to sea level rise, as they have for thousands of years. Honestly, the sea level has been rising in this Country, in this world, for about 15,000 18,000 years since the last ice age. The rate is increasing, which is very concerning, and we see the effects of the last 100, 150 years of sea level rise, and that maybe be realized in more like 50 to 75 years. That is concerning.

Sediment along beaches and dunes typically move with sea level rise, marshes not so quickly. I think there is a lot of need for putting material that is dredged into good locations that could enhance both flood risk management and natural resource priorities.

Senator Carper. Thank you for those insights. Again, with respect to, I think you have touched on this, but again, with respect to the dredged material utilization project, why is the biennial process of WRDA reauthorization, why is that process critical to the project's success?

Mr. Pratt. It keeps the conversation, if nothing else, it keeps the conversation going. We can build on the successes of the last one. I think it is an iterative progression forward. We can't take giant leaps, but as we, I think as you and Congress implement authorities and policies, and then I think part of it is to see how the Corps decides to implement those responsibilities, and is there a course correction or a course enhancement needed as you go forward.

Building upon each successive WRDA is truly, I think, the best way to go forward.

Senator Carper. Thank you. Chris Blanchard, are you up for another question?

Mr. Blanchard. Yes, sir.

Senator Carper. The locks and dams on the Upper Ohio, which are part of a larger inland waterway system, enable the movement, as you have mentioned, hundreds of tons, thousands of tons of commodities every year. This system is a critical component of the navigable waterways that the Army Corps of Engineers maintains. These waterways are the backbone of our economy. I have mentioned that before. They are the backbone of our economy, moving goods from across our Nation to ports and to out of Nation ports and to inland communities and places all over the world.

I understand that much of the inland waterways infrastructure is pretty old and comprised of components that are hard to maintain or replace. I will ask you to explain for us, if you will, how the Corps projects along the Upper Ohio River will support reliability and efficiency of the system, and what this means for our economy, not just in that part of the Country, but for the entire Country.

Mr. Blanchard. Thank you. The Upper Ohio project comes down to, simply, redundancy. They have three locks, as you mentioned, that were originally built between 1919 and 1936. They underwent major rehabilitation in 1986 with a design life at that time for 25 years. Obviously, we are well past that. Every day, those locks have barges that carry cargo.

One particular project here recently in the last few years, there was a Shell cracker facility that was an \$8 billion investment that was built in that area. The vast majority of the significant parts to make that facility possible arrived by barge that came through the U.S. Gulf, through the Lower Mississippi River all the way up through the river systems to the Upper Ohio.

They are a great example of what is going on throughout our entire Country with the locks and dams. There are critical cargos regularly moving through locks and dams that are particularly past their design life. As I mentioned in my testimony, 80 percent of our locks and dams are past their design life.

Senator Carper. One other question, just geographically, paint a picture for us of Upper Ohio. I know when I think of Upper Ohio, I spent four good years as a Navy ROTC midshipman at Ohio State and learned a little bit about Ohio and the Ohio River. Just tell us what part of our Country, just sketch that for us, so we can imagine it.

Mr. Blanchard. It is the greater Pittsburgh area, and so it receives cargo that goes all the way into Northern West Virginia and then goes north and then westward on the Ohio River.

Senator Carper. Good. Thank you.

Ms. Aryan Zahlan, are you still there? Good, you are. This is overtime for you. You are probably ready to call it a day, here, pretty soon. Thanks again for joining us and getting up so early today.

As I mentioned earlier, a sizable amount of United States gross domestic product is related to import and export activities at our

ports across this land. Navigation is one of the Corps' primary missions, in addition to flood risk management. What is the Corps' role in supporting navigation at the Port of Los Angeles? I will repeat that. What is the Corps' role in supporting navigation at the Port of Los Angeles? What can you share with us about your experience in working with the Corps in that regard?

Ms. Aryan Zahlan. Thank you, Senator. The Corps' role is to maintain the Federal channel, and the Port of Los Angeles itself actually does the maintenance of the berths, at the berths. We are a deepwater port, so we don't have that much maintenance dredging in comparison to our non-deepwater ports.

We do coordinate with the Corps for those berthing improvements and maintenance dredging along the berths. The port does that work itself, and we do coordinate with the Army Corps with the permitting process. We have a regional general permit 65 and 29.

There was a question brought up earlier on how do we improve the permitting process with the Corps. We have a very good relationship with our permitting process Army Corps District Office, and the key to that is actually being proactive and discussing the project upfront sooner rather than later, as they say, to get the permitting process and understanding the conditions for that permit and then being in compliance with our Regional 65 and 29 permits.

The Corps plays an important role. We are pleased that we have the opportunity to use the expanded use funding for our projects above and beyond the maintenance dredging that we were able to implement and utilize those funds for our maintenance projects for in-water work and

seismic upgrades and wharf maintenance program.

Senator Carper. Thanks for that response.

Maybe one last question. This would be for Mr. Paulsen, if I could. As you know, the Fargo-Moorhead project takes a unique approach to addressing flood control. This project, like other Army Corps flood risk management projects across the Nation, is designed to protect a couple things: one, the safety of communities, and two, the economies of those communities, which is something that is growing more challenging in the wake of climate change, as we have already alluded.

In recent years, there have been an increasing number of climate change and extreme weather-driven flooding events with costly damage to life, to property, and to our economy. This makes flood control projects like Fargo-Moorhead especially important.

My question today is, and we will close it out with this, please describe for us, if you would, from your experience, the importance of your partnership with the Corps on flood risk management and how are you addressing these extreme weather events.

Mr. Paulsen. Thank you for the question, Chairman. I think it is a very good question. As we move forward in the future, we are going to see larger and larger flood protection projects. With the current state of funding for the Corps' Civil Works Program and the current backlog continuing to add to itself, it is a very major concern for the Nation, how are we going to address climate change and provide the flood control resiliency that this Nation needs to continue to be successful in the future?

I do believe, and our program believes, that this public-private partnership is one tool in the toolbox that can be used for large mega-projects that the Corps will inevitably need to be a part of and implement in the future.

We have been contacted by numerous other nonfederal sponsors across the Country to try to replicate our financial structure and our financial plan, as well as investigate the use of a P3 potential with the Corps. Some of these programs are huge programs, potentially \$50 billion programs for the City of New York, for the Boston Harbor, for Galveston, which already is authorized, of course.

When we start talking about \$50 billion projects and we look at the amount that gets appropriated on an annual basis to the Corps, it just doesn't add up. There needs to be other funding and financing options available to get these projects put into place. We believe our project can be replicated throughout the Nation to provide an avenue for private industry to get involved and to provide some of their funding and financing, as well as enhance the innovation and the cost savings that we have seen on our projects.

Senator Carper. Thank you for that. I am going to give our witnesses the opportunity to just take maybe a minute to say something that you would like to say and haven't been able to say it already, maybe something you would just like to reiterate for us. We will go out to the West Coast and ask Dina to help us close this out. Dina, do you want to give us one last minute, that would be great.

Ms. Aryan Zahlan. Thank you very much, Senator. We believe the intent of the committee in WRDA is to direct the Corps to allocate,

again, the 12 percent of HMTF revenue to donor and energy ports. That was clear, and we hope to work with the Appropriations Committee and the Corps to implement it. We thank you very much for all of your work in expanding the use definition for us to access the Section 2106 and the HMTF funding. Thank you very much.

Senator Carper. Thank you. I think you told us earlier that you got up at 5:00 this morning, west coast time, in order to join us, so get some sleep tonight. Thanks again.

Let's see who else. Chris Blanchard, why don't you give us a closing one-minute? When I was in the House of Representatives, they wouldn't, 435 people, you don't have time for everybody to talk forever. In the Senate, you can talk for a long time, and we do. In the House, a lot of the time, you are limited to a minute. You get to be pretty good in talking in one-minute bites. This is your practice for being House members someday. Go ahead.

Mr. Blanchard. Thank you, sir. I would just like to reiterate the efficiency of moving cargo by barge and the important to the national economy. For comparison, I think it is an important fact for folks to remember: to move the same cargo by rail versus by barge, it emits 43 percent more emissions by rail. And the same amount of cargo in truck, to move the same amount of cargo, would be 800 percent more emissions. As we talk about the climate, and I would like to remind the committee that moving by barge, and therefore investment in efficient locks and dams, helps further the movement towards less emissions.

In addition, for the 2024 WRDA bill, the Infrastructure Bill

funded seven lock and dam projects in the inland waterway system to completion. Unfortunately, recently, we have learned from the Corps that a lot of those projects, or several of them, are going to be significantly over those and will need additional money.

It would be our view and request that WRDA 2024 maintain the Congressional intent of the Infrastructure Bill and federally invest any addition of monies needed to complete those projects that were part of the investment infrastructure bill. Thank you.

Senator Carper. Good. Thank you for that.

Tony Pratt, last word?

Mr. Pratt. Yes, thanks for an opportunity for just a thought. I will extend a little bit of the thinking we have talked about a few minutes ago about beneficial use of dredged material.

One of the underserved areas within the Corps of Engineers is small boat channels. We have in Delaware, your home State, you know, perhaps, we have, I think, the number is 23 federally authorized channels within the State of which three are maintained by the Corps through dredging. We have a number of them in the inland bays that are not ever dredged by the Corps, not maintained by the Corps. I think the metric for that determining why they should be dredged is based on commercial cargo that goes through channels.

We see representation from very large urban navigation projects, but the small channel service in this Country is very underserved. If we looked at that from the perspective of sediment availability to do environmental enhancement and community protection, I think it would change the metric a little bit. I think that is something that this

committee could look into a little bit more.

Senator Carper. Okay, thank you for that. Mr. Paulsen?

Mr. Paulsen. Thank you, Mr. Chairman. We continue to maintain the P3 authorization for the Corps is of utmost importance to keep that authority. I didn't get a chance to really expand upon the WIFIA loan that we used, the EPA WIFIA loan. The Corps does also have a program that they are using similar to the WIFIA program, particularly for dams. I would suggest that further expansion of that program to apply to flood protection projects would show the benefits of the WIFIA component of our financing.

Bottom line, I don't think our project would be where it is today had we not taken advantage of the WIFIA program with the EPA. So we are eternally grateful for that and that component within our financing plan. I do think there should be continued discussion with how the Corps can utilize that financing instrument with nonfederal sponsors to move flood protection projects forward much faster.

Senator Carper. Thank you. This has been an important hearing. This is really an important subject. People of the Country, you listen to the news these days, you would think we never work together here, and we don't like each other, and Democrats and Republicans, we just go to our respective corners and just figure out how to fight and make the other side look bad.

That is not the way we work on this committee. It is not the way, frankly, we work in the Senate. We have just a wonderful working relationship with Senator Capito and our Republican colleagues. We don't agree on everything, but we agree on a lot, and I think the

people of America, if they could see the kind of collegiality and bipartisanship on this committee that they would be actually encouraged. It is important that we work together.

The greatest challenge that we face on the planet right now is our planet is getting hotter and the seas are rising. It is a threat to every nation on the planet and the people who live in those. That is the bad news.

The good news is, we can do something about it. Out of this committee, we report out other legislation, not just WRDA, but other legislation, which enables us to address those kinds of threats, climate change in very constructive ways and create a lot of jobs at the same time, which is for me, that is the great combination.

I think Mr. Blanchard talked about the energy efficiency of moving cargo by barge as opposed to by rail, and that is a good point, a very good point.

Another piece of information related to that, is can we move, I think I have this right, we can move a ton of freight by rail from Washington, D.C. to Boston on one gallon of diesel fuel on a train. Even better and more fuel efficient are barges, so that is something for us to keep in mind as we go forward.

I am going to close out. Again, I thank you all for joining us. I thank our colleagues, especially our Ranking Member, for being here and asking questions. This has been, I think, an especially useful, now as we prepare to turn for our work on the WRDA 2024 project submission process. We will be asking our colleagues from all 50 States, all 100 colleagues, to let us know what their projects, their

priorities are. Then we will go to work and try to meet as many of those as we can.

Before we adjourn, a little bit of housekeeping. Senators will be allowed to submit written questions to our witnesses for the record by 4:00 p.m. on Thursday, August 3rd, which is two weeks from today. We will compile those questions and send them to our witnesses, and we are going to ask you to try and respond to us, if you will, by Thursday, August the 17th.

Let me just turn to our staff members on the majority and minority side. Anything else? All right. As we say in Delaware, it is a wrap. This committee hearing is adjourned. Thank you so much.

[Whereupon, at 11:23 a.m., the hearing was adjourned.]