

**LEGISLATIVE HEARING ON S. 2800, AMERICA'S
WATER INFRASTRUCTURE ACT OF 2018**

HEARING
BEFORE THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

MAY 9, 2018

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

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LEGISLATIVE HEARING ON S. 2800, AMERICA'S WATER INFRASTRUCTURE ACT OF 2018

WEDNESDAY, MAY 9, 2018

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The Committee met, pursuant to notice, at 10:03 a.m. in room 406, Dirksen Senate Office Building, Hon. John Barrasso (Chairman of the Committee) presiding.

Present: Senators Barrasso, Carper, Inhofe, Capito, Boozman, Wicker, Fischer, Rounds, Ernst, Sullivan, Cardin, Whitehouse, Gillibrand, Booker, Markey, and Van Hollen.

OPENING STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM THE STATE OF WYOMING

Senator BARRASSO. Good morning. I call this hearing to order.

We are here to examine legislation titled America's Water Infrastructure Act of 2018. This is bipartisan legislation. This legislation is introduced along with Committee Ranking Member Carper, Transportation and Infrastructure Subcommittee Chairman Inhofe, and Subcommittee Ranking Member Cardin.

The Senate Committee of the Environment and Public Works has jurisdiction over much of our Nation's water infrastructure, including locks and dams, inland waterways, irrigation and water systems, and ports. These infrastructure systems are critical to keeping America prosperous and safe from dangerous floods and contaminated water sources.

This bipartisan legislation is a result of significant work in negotiations among the members of our Committee, and I want to thank each and every one of the members of the Committee for their efforts.

The discussions are ongoing. We plan to add a bipartisan manager's amendment to the bill, when we mark it up later this month, in order to address a number of other outstanding issues.

Water infrastructure is important to every region, to every State, to every tribe, and to every community in America. America's Water Infrastructure Act is going to support our Nation's economic competitiveness by increasing water storage, by deepening nationally significant ports, by addressing aging irrigation systems, and by maintaining the navigability of inland waterways across the country.

In my home State of Wyoming and across the West, water storage capacity and supply are vital to local economies. Sediment build up behind dams severely limits water storage. Our bill is

going to address this problem by directing the Bureau of Reclamation and the Army Corps of Engineers to develop sediment management plans for Federal reservoirs.

America's Water Infrastructure Act will also expand our Nation's water storage capability by facilitating the permitting of additional reservoirs. For example, in Wyoming, the bill would approve the expansion of water storage at the Bureau of Reclamation's Fontenelle Reservoir in Lincoln County.

Expanding water storage will give our farmers, ranchers, and communities a reliable supply of water in order to keep their livestock and their crops healthy. More water storage also provides an economic incentive for new businesses to grow and to create jobs throughout the Nation.

America's Water Infrastructure Act will also fix deteriorating irrigation systems that are vital for growing crops and for raising livestock.

The legislation isn't just important for rural America. Dredging nationally significant ports and maintaining our inland waterways will enhance our growing economy. Goods and raw materials need to move from the heartland to the coast for export. The bill is designed to maintain these vital arteries of commerce. It is good for big cities and for rural communities alike.

This legislation is also about health and safety. It includes provisions to repair old drinking water and wastewater systems, protecting communities from contaminated water sources. The bill will make it easier for the Army Corps to take steps to keep communities safe from flooding. It will address maintenance needs of older dams and levees that protect communities from dangerous floodwaters.

Finally, this bill will create an addition to the benefit-cost ratio framework. The addition will give local stakeholders a greater role in prioritizing Army Corps projects. Under this new provision, more projects are likely to be built in small rural and inland States.

America's Water Infrastructure Act is going to authorize or reauthorize important water infrastructure programs and projects that benefit all 50 States, so I urge my colleagues to work with me in a bipartisan way to pass this important legislation so we can create American jobs and promote our Nation's prosperity, health, and safety.

With that, I would like to turn to the Ranking Member and co-sponsor of the legislation, Senator Carper, for his statement.

**OPENING STATEMENT OF HON. THOMAS R. CARPER,
U.S. SENATOR FROM THE STATE OF DELAWARE**

Senator CARPER. Thanks, Mr. Chairman.

As my colleagues know, I take the train most days down to Washington from Delaware. Almost every day somebody on the platform, waiting to catch the train, will come up to me and say I wouldn't have your job for all the tea in China; you must hate your job. I really don't at all. I feel lucky to be here. I feel lucky to serve with the men and women around us on this Committee and in the Senate.

I wouldn't want to spike the football too early, but this is a day to celebrate. This is a victory, I think, in introducing this legisla-

tion, for bipartisanship, for fiscal responsibility. This is a victory for environmental soundness. It is good for the economy and embraces the idea of using some common sense, so I think we can be proud of this.

My colleagues hear me from time to time quote Lincoln. What is the role of government? The role of the government is to do for the people what they cannot do for themselves. Think about that.

One of the major roles of government is to create a nurturing environment for job creation and job preservation, along with a lot of other stakeholders. We try to do that, and I think successfully with this legislation.

So, my thanks to our colleagues on my left here, Senator Cardin, my thanks to Jim Inhofe and your staff, certainly to our Chairman for working with us and with our colleagues on this Committee and off the Committee to address America's water infrastructure needs.

Our bill, titled "America's Water Infrastructure Act," is an important piece of legislation, given that the authorization law under which the Corps of Engineers currently operates expires come December. I am proud of the bipartisan work we have done together on this legislation. We are stronger together, and I hope that it will serve as a model for work that we on this Committee, along with others, can do in the future, this year and beyond.

Before I comment on the bill, I just want to thank all the witnesses for joining us today. I especially want to thank Jeff Bullock, who is our Secretary of State for the State of Delaware, who previously worked with me when I was a Congressman and with my chief of staff as Governor, and for a little bit as chief of staff for my first year in the U.S. Senate.

Sitting right behind in the audience is Jonathan Jones, who worked as part of our team, who was my chief of staff. Two of my chiefs of staff here, former chiefs of staff here.

People ask me why I have had some success. I always surround myself with people smarter than me, and these are a couple of them, and we are delighted that they are here.

I want to welcome back Tony Pratt, who is the President of the American Shore and Beach Preservation Association. He has been here before. He is a senior member of our Department of Environmental Protection in Delaware Natural Resources and Environmental Protection, and we thank Tony for joining us, and all of our other witnesses, too.

Coastal issues are extremely important to everybody in the room, but especially to the lowest lying State in our country, that would be Delaware, and the water resources bill is critical to our State's economy as it is to many other States.

Delaware's economic reliance on the Corps' work is not unique. I was astounded by this fact, but over 90 percent of U.S. overseas trade volume—over 90 percent of U.S. overseas trade volume—moves through coastal channels that the Corps maintains. Think about that. Over 90 percent of U.S. overseas trade volume moves through coastal channels that the Corps maintains. They have an incredible job, incredible responsibility for all of us.

The Corps inland waterways and locks form a freight network. Think of it almost as a water highway that provides access to inter-

national markets through our ports. They also serve as critical infrastructure for the U.S. military.

Our bill authorizes investments in this system in multiple ways, multiple ways. Most notably, it positions the Corps to be an active partner with ports, with communities, with States, with tribes, and other stakeholders in growing and expanding our Nation's economy.

A reinvestment in this partnership is much needed. For the better part of a decade now, the executive branch has calculated water project costs and benefits in a way that has led to a backlog of unfunded and uncompleted—but needed—projects. Our bill works to address this problem by authorizing new funding and project planning requirements at the Corps' most local level, including individual Corps districts.

This legislation requires local participation in the development of new district plans, too, and hopefully this participation will allow for a more transparent and long-term look at the Corps' activities and serve to build a better and bigger groundswell of support for increased appropriations for the agency's initiatives down the line.

Our legislation also invests nationally in both coasts and inland waterways. I am particularly proud of a provision that will support the selection of natural infrastructure alternatives as a practical solution in situations where and when the development of gray or more traditional infrastructure alone may not work.

The Corps of Engineers also works to reduce risk to human safety and property damage from flooding. Flooding alone currently costs the United States billions of dollars annually.

As the 2017 hurricane season illustrated, our Nation needs to be ready for the next extreme storm or flood event, because it is coming. Earlier this year, NOAA, the National Oceanic and Atmospheric Administration, announced that the total cost for extreme weather and climate events in 2017—get this—exceeded \$300 billion, a new annual record in the U.S. It is clearly not a matter of if the next extreme weather event is coming; it is a matter of when.

Our bill allows the Secretary of the Army to waive the cost share for hazard mitigation related feasibility studies so that we can be shovel ready before the next storm hits. Additionally, the bill modifies the Corps' existing emergency authorities to allow the agency to participate in storm damage recovery for a longer period of time, make more resilient infrastructure decisions, and where appropriate, cost share infrastructure replacements so resources can go further.

The American Society of Civil Engineers Infrastructure Report Card gives our country's dams, our levees, our inland waterways a D, as in dog, as in decrepit. It gives our country's dams, levees, and inland waterways a D, representing an overall cumulative investment backlog of nearly \$140 billion in an authorized but unconstructed portfolio of \$60 billion.

The bill reauthorizes the Corps' dam safety programs and makes needed changes as proposed by civil engineers.

Clearly, we have a lot of important work to do to move this bill across the goal line. However, if we continue to work, as we have, in a bipartisan fashion, I think we will get the bill done, and our country will be better for it.

Mr. Chairman, thank you again for your leadership on this bill and for your staff's hard work.

I also want to thank our partners. I want to thank Senator Inhofe, who has worked in these vineyards before; Senator Cardin, as well, and your staffs for being a part of this process.

I just want to briefly recognize the staff members who are among those who worked very hard on this bill. They include Brian, Andy, Pauline, Lizzy, Craig, May, Jennie. In addition, I want to thank Christina Baysinger, Skylar Bayer, and John Kane of our own staff on the minority side. All of our staff has spent countless hours working together through provisions that matter not just for Wyoming, not just for Delaware, but for our Nation as a whole.

Again, we welcome our witnesses. We look forward to hearing from each of you this morning to make this very good piece of legislation even better in the weeks to come.

Thank you so much.

Senator BARRASSO. Well, thank you very much, Senator Carper.

I would like to now recognize the Chairman of the Subcommittee on Transportation and Infrastructure, Senator Inhofe, if you have some comments you would like to share with us.

**OPENING STATEMENT OF HON. JAMES M. INHOFE,
U.S. SENATOR FROM THE STATE OF OKLAHOMA**

Senator INHOFE. Well, I do. I do. I would introduce the staff people like Senator Carper did, except they are all over at the EPA, so they are not here today.

Anyway, I thank you and the Ranking Member, Senator Cardin, for having this thing. I can remember the years that I chaired this Committee. We had gone through a number of years where we were supposed to do this, and everyone knows this, we were supposed to do it every 2 years. We had some periods of 4 or 6, and one 8-year period where we didn't do it. We got back on schedule, and I applaud the leadership of this Committee for continuing that.

Now, in all the people who are here today, it is important that we keep it up, we keep it going, and we do it in the proper way. It is one of the few things that really works well in Government, is the way we do the WRDA bills.

In Oklahoma, our State DOT has an 8-year plan which is updated yearly and is publicly available. Now, everybody knows, there are no secrets in this thing. They know what we are planning to do, they know well in advance. They participate in it.

The budget reforms in this bill will provide an ongoing 5-year window of certainty and transparency, and allow for more input from stakeholders when creating priorities within the Corps' districts and headquarters.

The bill will also help our communities in building out their water and wastewater systems and assist them in complying with the many Federal mandates that are creating so many problems for so many people.

The growing communities in my State of Oklahoma, like Bartlesville, will be able to contract for additional water storage without breaking the bank. We have clarified language so that the stakeholders along the McClelland-Kerr Arkansas navigation system.

Everyone in this room knows because you are all experts, but out in the real world, how many people know that we are navigable in the State of Oklahoma or in Arkansas? As we go through, I remember 100 years ago, when I was in the State Senate, someone came to me from the World War II Submarine Veterans Association, and they said, we'd like to demonstrate what we can do in Oklahoma. We are going to take a World War II submarine all the way from the Gulf of Mexico up through Arkansas to Oklahoma to the Port of Muskogee.

They said it couldn't be done. All my adversaries were saying we are going to sink Inhofe with his submarine. All these things were going. But we actually did get all the way up there, and it was a great experience, so we are on the map.

With entrepreneurs in Oklahoma like Grant Humphries—I was down at his operation not too long ago. I can remember when the Corps didn't provide any kind of help in recreational activity. They are doing it now, and we are doing it successfully.

I know that no bill is perfect, and I know there are some concerns related to the Hopper dredge, and we are working on language, working closely with those who have a personal interest in that. We want to be sure that, if the private sector has areas where availability is not there, a compromise can be reached to try to accommodate those needs.

So, I look forward to continue to work with my colleagues to improve this bill. This will be one of the major pieces of legislation that we can all be proud of.

Thank you, Mr. Chairman.

Senator BARRASSO. Thank you, Senator Inhofe.

I would now like to recognize the Ranking Member of the Subcommittee on Transportation and Infrastructure, Senator Cardin, if you have comments you would like to share with us.

**OPENING STATEMENT OF HON. BENJAMIN L. CARDIN,
U.S. SENATOR FROM THE STATE OF MARYLAND**

Senator CARDIN. Well, Senator Barrasso, I want to join with Senator Carper and Senator Inhofe in congratulating you for bringing this bill to the Committee's attention in the best traditions of our Committee. I agree we should be doing these reauthorizations every 2 years in order to make sure that the authorizations are contemporary with need. It is our Committee's responsibility to do it, and you are carrying that out in the best traditions. It is certainly bipartisan, and it is focused on clean, safe water for our Nation, advancing water infrastructure for both public health and our economy, and doing it in a fiscally responsible way, so I am proud to be part of this effort.

For our Nation, let me just mention three bills that I worked on with other members of this Committee in the U.S. Senate that parts are incorporated into this America's Water Infrastructure Act. I am pleased that a good part of S. 1137, the Clean, Safe, Reliable Water Infrastructure Act, is included. Senator Boozman has been one of the leaders on that, Senator Inhofe and Senator Duckworth, an important bill that deals with drinking water and wastewater infrastructure in our country.

Parts of S. 692, the Water Infrastructure Flexibility Act, Senator Fischer was very much engaged in that Act, along with Senator Brown, that deals with the affordability, which is important to all parts of our country, but particularly to my State, in Baltimore, it is a major issue and deals with integrated planning of our water infrastructure.

And then S. 451, the Water Resources Research Amendments, again by Senator Boozman, that we worked on for additional research into the effectiveness and efficiency of new and existing water treatment works.

So, there is a lot of important work that is being done for national strategies dealing with modernizing our water infrastructure.

I am proud of the impact this will have on the State of Maryland. I know that members of this Committee may be getting a little bit tired of my mentioning the Chesapeake Bay. I know that Senator Carper is not, and Senator Van Hollen is not, but others may. But the Chesapeake Bay, obviously, is a matter of major concern. Maryland is a coastal State, and this bill will help us deal with our coastal issues of the Chesapeake Bay and certainly the needs of the Port of Baltimore. We have other ports; we have a port in Salisbury, making sure that our channels are kept dredged at the right levels.

I say that because this bill will deal with Poplar Island and Mid-Bay Island ecosystem restoration projects, and I really want to underscore this, because, when I first came to the U.S. Congress, the location of sites where we could put dredge material was extremely controversial, extremely controversial. Hart-Miller Island is famous for congressional races based around the future whether we could find sites to put dredge materials.

That is no longer the case in our region thanks to Poplar Island, which not only serves as a location for dredge material, but is an ecosystem restoration project. Just recently I had the opportunity to take the leadership of the Army Corps to the site to take a look at it, and it is a model site for what we should be doing in reclaiming lands that were once there. This was once a habitable island that had gotten down to about five acres. It is now being restored to thousands of acres, and it is thriving as an environmental site.

The next location will be Mid-Bay, and this legislation provides for the continuity of the locations for dredge sites in Maryland in the Chesapeake Bay for keeping our channels to the depths that are needed, because that is critically important to our economy and the ports.

There is a provision in this bill that deals with the Anacostia River to complete the feasibility study. That is important.

Last, Mr. Chairman, I want to mention the point you mentioned, and that is the cost-benefit analysis dealing with smaller facilities. We have, in Maryland, numerous sites that are critically important to get Army Corps work to deal with recreational and tourism issues, and your leadership here will make it more likely we can get those projects on schedule to get the work that they need.

I am proud to be part of this effort.

Senator BARRASSO. Thank you, Senator Cardin.

I would like to now ask Senator Boozman if he would like to introduce one of our guests.

Senator BOOZMAN. Thank you, Mr. Chairman.

I just want to take a second to give a special thanks to Dennis Sternberg being here today. Mr. Sternberg has spent almost 40 years in water and wastewater industry in Arkansas, hailing from Greenbrier, Arkansas. Twenty-nine of those years were spent working in almost all field positions, as a field rep, EPA program manager, USDA circuit rider, and wastewater technician trainer.

He and his Arkansas Rural Water Association staff are truly committed to the future of rural communities by assisting utilities throughout the State with the many challenges rural and small utilities continue to face.

He holds the highest water and wastewater licenses in Arkansas: Class 4 water distribution and Class 4 water treatment and Class 4 wastewater license in Arkansas.

In 2006 Mr. Sternberg received the Executive Director of the Year Award from National Rural Association, and in 2009 the United States Department of Agriculture and National Rural Water Association recognized Dennis for leadership in emergency response preparation.

Mr. Sternberg, we truly do appreciate you being here and appreciate you bringing your knowledge of so many years, so much experience to the Committee today.

Senator BARRASSO. Thank you very much, Senator Boozman.

Well, we have a wonderful panel here to join us today.

Pat Riley is here, the Advisory Committee Member from the Family Farm Alliance; Mr. Sternberg, who has just been recognized, is the Executive Director of the Arkansas Rural Water Association; Kristina Swallow, thank you for joining us, the President of the American Society of Civil Engineers; and then, of course, Jeff Bullock, Secretary of State from Delaware.

I understand when you started working for him you had hair. That's what I hear.

[Laughter.]

Senator BARRASSO. And Tony Pratt, President of the American Shore and Beach Preservation Association.

I want to remind our witnesses your full written testimony will be made part of the official record today. If you could please keep your statements to 5 minutes so we may have additional time for questions.

I look forward to hearing your testimony, beginning with Mr. Riley.

Please proceed. Welcome.

**STATEMENT OF PAT RILEY,
ADVISORY COMMITTEE MEMBER, FAMILY FARM ALLIANCE**

Mr. RILEY. Thank you, Senator Barrasso, Senator Carper, and members of the Committee. I am new to this, so bear with me.

My name is Pat Riley. I live near Roundup, Montana, which is in central Montana, the Missouri Breaks country. I am a farmer-rancher and also a consultant throughout the State that works with farmers and ranchers to deal with water rights and water resource issues.

I previously served as a manager of the Rivers Adjudication in northeast and southeast Montana, which entailed working on the Upper Missouri and the Yellowstone River Basin for a number of issues.

Prior to that I managed Montana's Irrigation Development Sustainment Program and worked with a lot of Indian tribes, up 'til 2014, where I moved back into the private area.

I am here to represent the Family Farm Alliance and bring perspective for the Upper Missouri and Yellowstone River Basins, where I live and I work. The Alliance has provided extensive testimony, written testimony, and I am only going to address a couple of different issues. Although I do have an interest in many other issues; it is just, with 5 minutes, I picked three of those.

The first section that I wanted to talk about was Section 1024. This deals with the watercraft inspections on the Upper Missouri and the Columbia Basin in regard to the aquatic invasive species issue. Just in the last 2 years in Montana we have had two Bureau of Rec projects where, in fact, the zebra mussels, some sign of the zebra mussels has hit our State, and we are in panic mode, and inspections are taking place in Montana, and we are actually formulating that. This will definitely help us to try to preserve our waters, even though the Eurasian milfoil has been in our State for a number of years, and we are trying to deal with that.

Section 3306 and 3403, these are the sections about the reservoir sediment problems that we see day to day in our State and throughout the United States. Siltation is a chronic problem throughout the West. I have looked at reservoirs from BIA, any Federal projects to State projects to local projects, and many of the reservoirs are 70 to 100 years old.

There are some of the reservoirs that I work with that are 50 percent full of silt right now. Well, if you think of that from my perspective as a farmer and rancher, this means that when I had 20 inches of water to use on my crop, now I have 10. I can't raise the crops I need to raise with 10 inches of water. So, this is a huge issue, siltation, from the farming side. Flood control is also a huge issue.

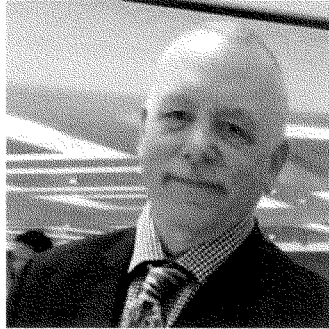
The biggest reservoir area is an Army Corps project, the Fort Peck Reservoir project. It is 19,200,000 acres feet of water. It is the upper of the three big reservoirs on the Missouri River. Well, if you assume that say it was 25 percent full of silt, which is 1930s vintage, that would be a likely scenario. We are talking about 5 million acre-foot that is used for flood control and irrigation and those sorts of things. That is a huge chunk, and it is only growing each and every day. I run into it all the time; we see it out on smaller projects where that has dramatically increased. And when you have silts of that level, your evaporation goes up because water becomes shallower.

The final section that I want to talk about is the tribal, one that is very near and dear to me, Sections 3807 and 3808. These are the tribal water right projects. I work solely on Indian water right projects in our State. We have seven reservations and thousands of acres of irrigation in BIA projects. Most of the BIA projects, I have to admit, are in woeful state. If I was to compare the Bureau of Rec projects in our State, they are probably 30 percent worse

than the Bureau of Rec projects, who we all know have 100 years of infrastructure that has been sitting there and falling apart. We need to deal with this. On the tribal projects, there are some that I would call almost non-functional.

I know that was just a brief of the things that I reviewed, but I felt like I needed to take as little time as possible, and I would like any questions that you would like to provide me later on. Thank you.

[The prepared statement of Mr. Riley follows:]



Pat Riley
Advisory Committee Member
Family Farm Alliance

Pat Riley owns and manages Riley Water Consulting, in Roundup, Montana. He has over 25 years of experience addressing water resources and energy challenges in the Missouri River watershed.

Raised on an irrigated farm in Northeast Montana in the Bureau of Reclamation's Glasgow Irrigation District, Mr. Riley's grandfather was the first Postmaster for the Army Corps of Engineers at Fort

Peck Reservoir Project, located on the upper Missouri River.

After attending Northern Montana College and serving in the military, Mr. Riley oversaw the river adjudication review and examination process in Northeast Montana (for the Missouri River) and later, Southeast Montana (Yellowstone River). He spent a year working with Montana's Water Right Compact Commission, the Bureau of Indian Affairs, and the Crow Tribe as they developed technical work relative to the Crow Tribal Compact. In 2000, Mr. Riley was hired to set up and run Montana's new Irrigation Development and Sustainment Program. During this time, he also served as the Montana Department of Natural Resources and Conservation representative to the Upper Missouri Water Association. Further, Mr. Riley worked on energy issues and legislation in Montana and Washington, D.C., and worked closely with the Montana Legislature on numerous issues

In 2013, Mr. Riley left state government and has managed his own water right consulting business, as well as serving on the Musselshell Watershed Group and the Lower Musselshell Conservation District. He also operates a small cow-calf operation in the Bull Mountains and on the Musselshell River.



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**Testimony for the Hearing Record of Pat Riley
On behalf of
Family Farm Alliance**

**Submitted to the United States Senate
Committee on Environment and Public Works**

**Legislative Hearing on "America's Water Infrastructure Act of 2018"
May 9, 2018**

Good morning, Chairman Barrasso, Ranking Member Carper and Members of the Committee:

On behalf of the Family Farm Alliance (Alliance), thank you for the opportunity to present this testimony on the "America's Water Infrastructure Act of 2018" (AWIA). My name is Pat Riley, and I live along the Upper Musselshell River, a tributary to the Upper Missouri River, in Montana. As you know, the AWIA, also known as the Water Resource Development Act (WRDA), is a biennial piece of legislation that is the main vehicle for authorizing water projects to be studied, planned and developed by the U.S. Army Corps of Engineers (Corps). It is also the legislative vehicle for implementing policy changes with respect to the Corps' water resource projects and programs. As such, this legislation is very important to the rural communities of the Western United States.

ABOUT THE FAMILY FARM ALLIANCE

I have served on the Advisory Committee of the Family Farm Alliance for the past decade. This Committee consists of water professionals like district managers, engineers, consultants and attorneys. The Alliance is a grassroots organization of family farmers, ranchers, irrigation districts, and allied industries in 16 Western states. The Alliance is focused on one mission: To ensure the availability of reliable, affordable irrigation water supplies to Western farmers and ranchers. We are also committed to the fundamental proposition that Western irrigated agriculture must be preserved and protected for a host of economic, sociological, environmental, and national security reasons – many of which are often overlooked in the context of other national policy decisions.

PERSONAL BACKGROUND

I was raised on an irrigated farm in Northeast Montana under the Bureau of Reclamation's Glasgow Irrigation District. My grandfather was the first Postmaster for the Army Corps of Engineers at Fort Peck Reservoir Project, located on the upper Missouri River. After attending college and serving in the military, I oversaw the river adjudication review and examination process in Northeast Montana (for the Missouri River) and later, Southeast Montana (Yellowstone River). I also spent a year working with Montana's Water Right Compact Commission, the Bureau of Indian Affairs, and the Crow Tribe as they developed technical work relative to the Crow Tribal Compact. In 2000, I was hired to set up and run Montana's new Irrigation Development and Sustainment Program. During this time, I also served as the Montana Department of Natural Resources and Conservation representative to the Upper Missouri Water Association. Five years ago, I left state government and have managed my own water right consulting business, as well as serving on the Musselshell Watershed Group and the Lower Musselshell Conservation District. I also operate a small cow-calf operation in the Bull Mountains and on the Musselshell River.

Given my background, I hope you will appreciate that my testimony will focus on how those provisions of the 2018 AWIA will benefit the Upper Missouri River watershed, as well as rural communities and agricultural water users in those areas of the country located west of the 100th meridian. I believe I can provide a unique perspective on the challenges rural producers face in the West, and how many of these provisions will help us and the towns we live in. The federal government has an enduring role in water supply and flood control infrastructure development and management that, consistent with state water laws, includes working with local water managers and communities on both a policy and operational level and, in partnership with them, providing support for their efforts to protect lives and property, as well as securing a stable and sustainable water supply.

Some of the key provisions of AWIA 2018 that apply to the Upper Missouri River system and the West include modifications to Fontenelle Reservoir in Wyoming, flood protection on the Snake River, reauthorization of the national levee safety program, adjustment of flood control rule curves on non-Federal reservoirs, control of invasive species, and evaluation of federal agency capabilities and capacity, among others.

WESTERN – SPECIFIC PROVISIONS

AWIA 2018 addresses numerous projects and challenges in the Western U.S.; I would like to address three specific areas of AWIA.

Upper Missouri River provisions

I would like to personally thank the Committee for the high priority it has placed on addressing flooding issues we face in the Upper Missouri River system, where reservoirs are filling with

sediment, ice jams contribute to flooding damages, and where we could use some additional tools to better understand the hydrology and predict extreme streamflow events.

Many of the irrigation projects I have been involved in the Upper Missouri Basin are mostly served by storage reservoirs that are between 40 and 90 years old. State of Montana reservoirs are experiencing the same challenges as Corps and Reclamation reservoirs. Montana has many reservoirs that now store only 1/3 of their designed capacity, which means that one of two things will happen under current conditions: operators must either reduce the number of acres that they irrigate, or they must turn full-service irrigation projects into partial-service projects and continue to irrigate acres, with the understanding that, in many years, middle and late season irrigation will not take place. This also reduces the ability of those lands to support any crop that requires late season water, such as corn, soybeans, and other high value crops.

Section 1179 of WIIN 2016 authorized an Upper Missouri River pilot program for the development and implementation of sediment management plans for reservoirs owned and operated by the Corps, on request of project beneficiaries. Sediment management plans are intended to prevent sediment from reducing water storage capacity at reservoirs and increasing water storage capacity through sediment removal at those reservoirs. We support Section 3401 of AWIA 2018, which amends section 1179(a) of WIIN 2016 by requiring that the Corps and the Bureau of Reclamation (Reclamation) prioritize funds to multi-state sediment management plans developed thereunder and makes clear that Reclamation shall participate in this sediment management pilot program.

Section 3501 makes permanent an existing pilot program for preventing and mitigating flood damages associated with ice jams. Not only does it increase the minimum number of pilot projects to be carried out from 10 to 20, it also places priority on projects in the Upper Mississippi River Basin. Section 3502 prioritizes funds for flood and drought monitoring in the Upper Missouri Basin. The Corps, in coordination with the National Oceanic and Atmospheric Administration, USDA Natural Resources Conservation Service, the U.S. Geological Survey, and Reclamation, would be authorized to carry out activities to improve and support management of Corps projects, including soil moisture and snowpack monitoring, restoring and maintaining existing snowpack monitoring sites, and operating streamflow gages. We concur with and support these provisions in AWIA 2018.

Authority to make entire active capacity of Fontenelle Reservoir available for use

The Fontenelle Dam, located in southwest Wyoming on the Green River, is a principal feature of the federal Seedskaadee Project. The project provides water storage and flow regulation on the Green River and generates power for municipal and industrial use, as well as wildlife and recreational benefits. The current active storage capacity of the reservoir is 260,000 acre-feet. Since 2011, the State of Wyoming has proposed expanding the active storage capacity of the reservoir. The House of Representatives recently passed H.R. 648, a bill that allows the Fontenelle Dam to be modified to increase the active storage capacity to 345,000 acre-feet. The expansion of

this water storage and management project will increase storage without noticeable change to the environmental footprint of the project.

Section 3301 of AWIA 2018 provides for the study, design, planning and construction activities that will enable the use of all active storage capacity of Fontenelle Dam and Reservoir, including the placement of sufficient riprap to allow the increase in active storage capacity of the reservoir to be used for the authorized purposes of the Seedskadee Project. The Secretary of the Interior may enter into agreements necessary to carry out these activities and the State of Wyoming must provide the Secretary with funds for any such activities providing additional storage at Fontenelle Dam and Reservoir. The Alliance and the National Water Resources Association expressed support for this project at a March 2017 hearing conducted by the Senate Energy and Natural Resources Committee.

Snake River basin flood prevention action plan

Section 3609 requires that the Secretary develop within 90 days of enactment of AWIA 2018 a flood prevention action plan for each state or portion of a state within the Snake River basin in consultation with the Commissioner of Reclamation. It further requires that following coordination with local stakeholders, a report be submitted within 180 days of WRDA 2018's enactment to Congressional committees on these flood prevention plans that were developed. We support the coordinated approach advocated in this section and strongly urge that these programs examine aquifer recharge and other new water storage opportunities that could be developed as part of these plans, particularly in Idaho.

ADDRESSING THE UNIQUE CHALLENGES OF RURAL COMMUNITIES

The AWIA 2018 includes several sections I believe would give local interests a stronger role in flood management and provide a balanced fair means of addressing the challenges faced by rural communities with limited funds and human resources.

AWIA provisions that improve the role of local management entities

The Family Farm Alliance has long believed that state laws and institutions must be given deference in issues relating to water resource management. The best decisions on water issues happen at the state and local level.

The AWIA 2018 includes several provisions we support that could allow local interests to play a stronger role in Corp of Engineers Programs:

- Section 1001 (“Corps budgeting”) requires that the Corps provide Congress on an annual basis with a 5-year budget and work plan that includes public input. This section could allow an additional opportunity for projects or initiatives of regional or local significance to move forward in the Corps’ budget process.
- Section 1009 (“Project partnership agreements”) is intended to help non-Federal sponsors understand their obligations by better defining and describing operation and maintenance, repair, replacement and rehabilitation (OMRR&R) costs in future project partnership agreements.
- Section 1020 (“Non-Federal study and construction of projects”) is intended to clarify that if the Federal portion of the cost-share is paid by a non-Federal interest, then the Corps is required to provide the requested technical assistance on any aspect of a feasibility study.
- Section 1025 (“Reauthorization of non-Federal implementation pilot program”) extends the authorizations and appropriations for the non-Federal implementation pilot programs at \$50 million for each of fiscal years 2020 through 2021. These pilot programs evaluate the cost-effectiveness and project delivery efficiency of non-Federal interests carrying out feasibility studies and the construction of projects for flood risk management, storm damage reduction, and other actions.

AWIA 2018 provisions that assist flood control efforts in rural communities

The “one size fits all” approach applied by the Corps in its benefit-to-cost (B/C) ratio analysis does not always work for Western rural communities. The Corps’ B/C analysis is structured such that it favors projects in urban areas, but projects in rural unincorporated areas are more difficult to qualify for Federal funding under the Corps process. The analysis is not effective in agricultural areas because land values are sometimes much lower than urban values, and therefore difficult to qualify. For levees, the incremental analysis is too regionalized and does not account for the whole watershed; instead, it looks only at part of the system. The criteria need to recognize the interconnectedness of a system; if levees in a single flood control district fail, the entire watershed may fail, too.

Rural water management and flood control agencies are also sometimes left behind in the process because they are unable to meet all application requirements (especially the B/C analysis component) because they are so expensive to perform. It is extremely difficult for a rural water district or county to pursue grants with the current stringent cost-benefit analysis requirements.

As such, many local agencies would like to see adjustments to the Corps B/C ratio analysis for Western rural and disadvantaged areas to include other benefits not currently captured. We are pleased to see that Section 1003 requires that the Comptroller General of the United States conduct and submit it to Congress a study on the benefit-cost procedures of the Corps and the Director of

the Office of Management and Budget (OMB). Among other things, the study would include an examination of the benefits that the Corps do and do not include in the benefit-cost calculation.

Section 3601 will help rural flood control management activities in rural areas of the Upper Missouri River Basin, Snake River Basin, and Red River Basin. This provision addresses PL 84-99 (Flood Control and Coastal Emergency Act) emergency management activities. It provides extended emergency assistance (beyond 30 days) to communities with non-Federal levees that are threatened or damaged by floods or storms. Specifically, it requires the Secretary to provide assistance for the operations and maintenance of any constructed project that becomes permanent under PL 84-99 due to the extended presence of assistance from the Secretary.

Indian Irrigation Fund Reauthorization

Indian Irrigation projects on Montana's seven reservations are in disrepair. When compared to Bureau of Reclamation projects, they appear to be in far worse shape. Most of the projects were built at the same time as Reclamation projects but have always been underfunded when it comes to operations and maintenance. Section 3807 reauthorizes the Indian Irrigation Fund through September 30, 2028, and continues key provisions related to the funding and expenditure from the Indian Irrigation Fund through fiscal year 2028. We support this important program, which provides resources for maintenance, repair, and replacement activities for aging Indian irrigation projects used by tribal and non-tribal ranchers to grow crops and raise livestock in Wyoming, Montana, and many other western states.

IMPROVING WATER INFRASTRUCTURE DEVELOPMENT

With water infrastructure in the spotlight in this Congress, the Family Farm Alliance has testified several times before Senate and House legislative and oversight committee hearings over this past year. We believe any new federal water infrastructure investments or financing tools should be made available for improvements in water conveyance, surface water storage, aquifer storage and recovery, groundwater recharge, wastewater and stormwater management, water reuse, desalination, and water use efficiency projects.

Aging water infrastructure

Water infrastructure legislation must also apply to the remediation of existing aging water infrastructure as well as to the development of new infrastructure. Water infrastructure that was built early in the last century is aging, and once-available federal grant and loan programs used in the past to rebuild this important infrastructure have been greatly diminished. Meanwhile, some progress, including provisions in the 2016 Water Infrastructure Improvements for the Nation (WIIN) Act, has been made at the federal level towards supporting the development of new and improved water supply infrastructure to keep up with the growing water demands of expanding cities, energy production, and environmental needs.

Existing economically critical water infrastructure owned by federal agencies like the Corps of Engineers and Reclamation is aging and is in need of rehabilitation and improvement. In the West, for example, most Reclamation facilities are between 50 and 100 years old. Such aging infrastructure presents a further challenge because it requires ever increasing maintenance and replacement investment. Investing in this infrastructure on the front end will save ratepayers' money in the long run and allow us to preserve and protect these facilities, and the many benefits they provide, for future generations.

AWIA 2018 addresses some of these concerns. Section 3302 raises the per project cost limit from \$10 million to \$40 million for rehabilitation of pre-1940 Corps constructed dams to address aging flood control reservoirs constructed or contributed to by the Corps. Section 3204 extends the authorization of appropriations for the National Dam Safety Program Act at \$9.2 million for each of fiscal years 2020 through 2021, which promotes the development of a dam safety education and awareness initiative to assist the public in preparing for, mitigating for, responding to, and recovering from dam incidents.

We are also pleased to see what appears to be a renewed appreciation for traditional water infrastructure in AWIA 2018. In the past decade or so, policy makers have placed increased emphasis on "non-structural" management methods and ecological concerns in analyzing a water resource project. Non-structural alternatives include but are not limited to modification of public policy, regulatory policy, and pricing policy, including utilization of "natural" infrastructure is placed on "full consideration" of nonstructural alternative actions or plans that meet planning objectives. Increasingly, we see that these actions are considered to be an "integral" part in the evaluation of federal investments in water resources. In recent years, we believe that a bias for selecting "natural" approaches is limiting, in practice, a full consideration of all alternatives. We are pleased that Section 1023 will require that the Corps consider any natural infrastructure alternative that is determined for a flood risk management project to be at least as suitable and equally as cost effective as traditional infrastructure over the life of the project.

Clean Water State Revolving Fund Loan Program Green Project Reserve

The U.S. Environmental Protection Agency's (EPA) Clean Water State Revolving Fund Loan Program (CWSRF), an effective loan program that addresses critical water infrastructure needs while benefitting the environment, local communities, and the economy. Currently, the CWSRF and its Green Project Reserve (GPR) is included every year by appropriation committees. Congress' intent in enacting the GPR was to direct State investment practices in the water sector to guide funding toward projects that utilize green or soft-path practices to complement and augment hard or gray infrastructure. Among other goals, the GPR is intended to enhance water and energy conservation and promote innovative approaches to water management problems.

Some of our members, particularly in Oregon, would like to see the CWSRF program included in the WRDA bill and make the 10% GPR permanent. Oregon rural communities, like many other Western states, continue to face high levels of unemployment. CWSRF-funded projects provide

much needed construction and professional services jobs. Moreover, as a loan program, it is a wise investment that allows local communities to leverage their limited resources and address critical infrastructure needs that would otherwise be unmet. However, continually reducing the amount of funds available for these types of worthwhile projects has created increased uncertainty for potential borrowers about whether adequate funding will be available in future years. CWSRF is often an integral part of an overall package of state, federal and local funding that necessitates a stronger level of assurance that loan funds will be available for planned water infrastructure projects. Reductions in the CWSRF could lead to loss of grant funding and delay or derail beneficial projects that irrigation districts have been developing for years.

Improved transparency and accountability in water project development

Repairing and modernizing the West's aging water infrastructure is a challenge critical to federal agencies like the Corps and Reclamation, as well as to the water users served and protected by aging facilities. The Alliance has always believed that transparency and accountability are crucial to any federal/non-federal partnership for infrastructure development and investment – for both existing and new facilities. Section 1004 amends the current Corps cost-sharing requirements for feasibility studies and project construction to require that whenever a local cost share is required for a water resources development project, each Corps district is required to maintain a balance sheet of the funding for the project. If a project comes in under-budget, the relevant share of the funds must be credited back to the non-Federal sponsor in the appropriate cost-share ratio. Section 1022 requires that the Secretary carry out any disposition study for a Corps project in a “transparent” manner. This includes offering opportunities for public input during the study, and publishing and making publicly available final disposition studies. The Alliance certainly supports the transparency and reporting requirements intended with this section.

Streamlined processes and improved management flexibility

The Alliance has worked closely with the Administration, Congress and Members of this Committee, including Chairman Barrasso, to find ways to streamline regulatory hurdles in order to assist in developing new, environmentally-sensitive water storage projects and other necessary infrastructure improvements. Future economic growth is heavily impacted when proposed water supply storage projects are blocked. If a reliable water source cannot be secured, then private investment and development cannot take place. AWIA 2018 contains important provisions intended to accelerate the efficient development of important water infrastructure projects.

As many of you are aware, developing new storage projects is much easier said than done. Often, efforts to advance new storage projects can be colossal, requiring millions of dollars and man-hours of investment, even in the most optimistic scenarios. Currently, I am involved in an off-stream storage reservoir on the Musselshell River that would only store about 5,000 acre-feet but would serve the entire lower end of the river basin with water in drought periods. Even though this project is essential to the survival of many ranches in the lower basin, this project has languished for over ten years, in large part due to having to deal with bureaucratic red tape. Other options and

alternatives to develop reliable water supplies are difficult to implement in the Upper Missouri River Basin. This might explain why a young farmer is a rare person in our neck of the woods.

Alliance President Patrick O'Toole has also testified before several Congressional committees in the past decade about the permitting challenges he encountered in building the Little Snake Supplemental Irrigation Supply Project (High Savery Project) in Wyoming. That project was built in less than two years but took more than 14 years to permit. Mr. O'Toole's experience with the High Savery Project clearly demonstrated that cooperative efforts are important for moving projects through the National Environmental Policy Act (NEPA) and other permitting processes. On the High Savery Project, the lead federal agency wasted a great deal of time making decisions on the project and at times seemed unable to make decisions. These delays not only postponed the project, they resulted in wasted time and money. We believe that state agencies (in Mr. O'Toole's case, the Wyoming Water Development Commission, or WWDC) and local project sponsors should become cooperating agencies in the NEPA process if possible and if not, should be allowed to serve on the project NEPA interdisciplinary team.

Section 1031 of AWIA creates a Board of Appeals for water storage projects undergoing consideration of a permit decision. The Board is made up of two representatives of state water development commissions and agencies with water storage needs, two representatives of the Corps and one representative jointly selected by the Secretary and entities. The provision requires the District Engineer to develop and provide to the applicant a purpose and needs statement that describes whether it concurs with the purpose and need statement of the applicant. The applicant then has the opportunity to appeal the purpose and need statement. The provision also requires that all permit conditions be provided to the applicant in advance of a permit decision. The applicant also has the opportunity to appeal the conditions prior to permit issuance.

We believe the effect of this provision would be to provide equal footing for state agencies with all federal agencies, including contributions to and evaluation of related environmental documentation. Establishing working relationships with the agencies involved in the NEPA process and permitting is important to keep projects on schedule and to avoid costly delays and disagreements. It is impossible to eliminate all problems associated with permitting dam and reservoir projects, but good cooperation and communications between agencies and groups, with an understanding of each participant's expectations, will help in problem resolution.

Another area of AWIA - Section 1019 - intends to ensure that section 1002 of WRRDA 2014 does not limit the Corps' available options to fund work related to feasibility scoping, project management planning, and review plan development. The 2014 provisions repealed requirements that the Corps conduct a reconnaissance study prior to initiating a feasibility study. It also created an accelerated process that allows non-federal project sponsors and the Corps to proceed directly to the feasibility study. Section 1034 of AWIA 2018 states the sense of Congress that the Secretary should simplify and expedite the process for including in-kind work in project partnership agreements to allow for more flexibility for potential changes to such work.

Innovative financing - WIFIA

Western water providers have invested millions of dollars in local and regional projects and strategies in recent years to improve water supply reliability. Those investments have been a major factor in the West's ability to manage through years of severe drought and flood. The Alliance believes that new innovative federally-backed financing tools will be needed in the coming years to assist in constructing new and improved water infrastructure. One such example is the congressionally authorized and funded Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) program at the EPA and the Corps. Water infrastructure is a long-term investment, and longer repayment and lower interest terms will be crucial to attracting investment in these water supply facilities. Such financing tools, which are currently not available in the financial markets, could help fund investments in constructing new water storage reservoirs (both on- and off-stream as well as groundwater storage), regulating reservoirs, canal lining and piping open channels, computerized water management and delivery systems, real-time monitoring of ecosystem functions and river flows to manage limited water supplies to benefit both fish and people, and watershed-based integrated regional water management project planning and implementation.

The WIFIA program was recently updated by the 114th Congress in the passage of the WIIN Act and WIFIA loans were funded for the first time in the FY 2017 omnibus appropriations bill. Section 4002 of AWIA 2018 extends the authorization of WIFIA at \$50 million for fiscal years 2020 through 2021, for a total of \$100 million. It further extends the authority of the EPA Administrator or the Secretary of the Army to use not more than \$2.2 million of the appropriated amounts for administrative costs. Additionally, Section 1028 of AWIA 2018 requires the Secretary to conduct a study on WIFIA implementation impediments for Corps projects. The study should investigate the obstacles that need to be removed so that the Secretary can implement WIFIA and identify all projects that the Secretary determines are potentially viable to receive assistance thereunder. We support these provisions, and we would ask that Congress consider a "WIFIA-like" alternative, or access to WIFIA loans for non-federal water supply and management projects that support Reclamation's mission and projects.

FAMILY FARM ALLIANCE ISSUES OF CONCERN

The Alliance has been engaged in several of the programs and issues addressed in AWIA 2018. The following section summarizes the Alliance's position and involvement with the National Levee Safety Program, adjustment of flood control rule curves, control of invasive species, and evaluation of federal agency capabilities and capacity.

Reauthorization of National Levee Safety Program

Section 3205 extends the National Levee Safety Program's authorization of appropriations for fiscal years 2020 through 2021. Since late 2010, Western water managers have become aware of, and have become increasingly concerned with actions undertaken by the National Committee on

Levee Safety (NCLS). This group, authorized in WRDA 2007, includes the Corps and FEMA as the only federal agencies represented on the NCLS. The NCLS was established to deal with post-Katrina flood risk issues, with an emphasis on Corps levees. However, the NCLS developed a plan that essentially could apply Corps-developed national engineering specifications and standards to levees and canal embankments throughout the country, with little to no initial coordination with Reclamation and Western water managers.

Currently, it does not appear that Reclamation's canals and water supply infrastructure are subject to the Corps' inventory and inspection program, since these facilities remain subject to Reclamation's own inspection regime. However, it is still not clear how non-federal canals that carry water for water delivery and power purposes would fall under the levee safety program. Congress should ensure that National Levee Safety Program implementation does not duplicate existing levee and canal embankment standards adhered to by water and power users through Reclamation's jurisdiction and the Western states.

Flood control rule curve adjustments

In developing water supply projects for the future, the Alliance believes that we must also consider how we manage and optimize the operations of existing water infrastructure, including optimizing flood control rule curves at existing federal and non/federal dams and reservoirs to meet both flood control and water supply demands. We believe these opportunities could produce some of the most cost-effective water supply sources we can invest in today.

Earlier this year, we supported provisions in Senator Flake's S. 2563 – "Water Supply Infrastructure and Drought Resilience Act of 2018" that would establish a pilot project to adjust flood control rule curves for Reclamation dams that meet the criteria of eligible projects and allow for certain non-federal entities to fund adjustments to these operational documents. Some of our members report that reviewing and adjusting Corps flood control curves can be a steep challenge. Water users who have been working with the Corps in some cases have found it a difficult process, with the Corps very cautious about making such changes. We fully support the intent of Section 3202 of WRDA, which authorizes the Secretary to accept non-federal funds from the owners of non-federal dams for the review and revision of water operations manuals and flood control curves where the Corps regulates the non-Federal facilities for flood control. It remains to be seen how these provisions will help in getting the Corps to be more open to modifications of flood curves to enhance water storage at affected facilities while continuing to protect downstream communities from flooding.

Invasive species

The Alliance for nearly a decade has supported administrative and legislative actions and funding for biological controls, mitigation management, and elimination of invasive species, including but not limited to quagga mussels and striped bass. A key priority in recent years has been to fund activities to fight the spread of quagga mussels in Western water bodies. We support the intent

of Section 1024, which increases to \$30 million the Corps' authorization for watercraft inspection stations intended to prevent the spread of aquatic invasive species in the Columbia River Basin. It also provides \$30 million in authorized appropriations for inspection stations in the Upper Missouri River Basin.

Evaluation of Corps of Engineers capabilities and capacity

Section 1002 of the new WRDA bill requires the National Academy of Sciences (NAS) to conduct studies to examine how the Corps can increase transparency in cooperating and working with Congress, State and local units of government, and local stakeholders, as well as other cost-share partners, government agencies, and stakeholders. This section also calls for studies to be conducted to determine whether the Congress should use a system-wide authorization process for water resources development projects (as opposed to project-based process), and whether the present structure and organization of the Corps is the most effective for its continued operation or whether the Corps structure and organization should be modified. Section 1017 proposes to study and evaluate the measures necessary to increase the capabilities of the Corps to undertake the planning and construction of water resources projects on an expedited basis and to comply with all requirements of law applicable to the Corps' water resources program.

We support this philosophy. The Alliance in 2005 asked its members to comment on the performance of Reclamation, with an eye towards developing specific recommendations for a similar study undertaken by the National Research Council (NRC) of the NAS to advise Reclamation on the organizational, management, and resource configurations to provide Reclamation with the capability to fulfill its core mission. The final NRC report, along with efforts driven by the Alliance and other national water and power organizations, led to Reclamation's Managing for Excellence (M4E) initiative. Reclamation embarked on a months-long analysis of the agency's operations and policies, thoroughly examining core capabilities in several key areas and their ability to respond in an innovative and timely manner to future needs. The *Managing for Excellence* Action Plan, published in February 2006, outlined a process and timeframe for identifying and addressing the specific 21st Century challenges to fulfill Reclamation's mission. The Plan's findings are still relevant today. We would hope that similar, useful guidance could ultimately be generated by Sections 1002 and 1007 of the 2018 WRDA bill.

MISCELLANEOUS ISSUES

Report on debris removal

The Secretary of the Army in 1945 was authorized to remove accumulated snags, obstructions, and other debris located in or adjacent to Federal channels, when in the opinion of the Chief of Engineers such work is advisable in the interest of navigation, flood control, or recreation. Section 3121 requires that Secretary report to Congress to what extent the Corps has used its authority to

remove debris from federal channels and adjacent waters. In recent decades, Western water and flood control managers have faced increased challenges associated with removing debris that can impact flood control capacity of channels and interfere with water diversion intakes. The report proposed in Section 3121 will describe how the Secretary has evaluated potential debris removal projects and detail recommendations for a pilot program to implement the limits of this authority. We support these provisions.

Regional sediment management

Section 3403 addresses sediment obtained through the construction, operation, or maintenance of an authorized Federal water resources project or a Reclamation project, including Federal reservoirs authorized for flood control. It requires that the Corps and Reclamation develop in consultation with one another regional sediment management plans at full federal expense (subject to the availability of appropriations). Additionally, the Secretary and the Commissioner must carry out projects at locations for the sediment's use in the construction, repair, modification, or rehabilitation of projects associated with Federal water resources projects and Reclamation projects. This section appears to be well-intended, and we hope that local water users and flood control managers will be included in the development of these proposed plans, since it is likely all or part of the cost of implementing these plans will rest on these non-federal water users and flood managers.

Importance of port and waterway navigation projects to Western agriculture

Western producers rely on the movement of goods through West Coast ports and major waterways. Projects like port deepening are critical for agriculture so that Pacific coast ports can remain competitive by accommodating today's larger ships. It is critically important to include funding to maintain the federal waterways leading to these ports. This funding helps ensure that navigation channels are dredged and jetties are maintained, allowing safe and efficient movement of goods in and out of the West coast's deep draft harbors. For example, Army Corps navigation projects on the Columbia River are important for agriculture, since inputs like fertilizer and fuel will travel upriver and grains and crops grown by producers go down river. Reliable and well-funded maintenance and repairs of lock systems are also important to agriculture in the Columbia River Basin.

It is water and the movement of goods that tie parts of our great region together. WRDA is legislation where these funding and policy challenges can be addressed

CONCLUSION

Extreme hydrologic events – marked by drought on one end, and floods on the other – will require everyone in the West to adopt a new paradigm, one that truly promotes wise management of this limited and valuable resource. This new paradigm will also mean additional investment in technology, conservation and new water storage and management infrastructure in order to deal

with the uncertainties that lay before us. We believe the America's Water Infrastructure Act of 2018 prepared by your Committee shows a strong commitment to existing and future water infrastructure, recognizes the unique challenges faced by rural communities, and takes strong strides to address those challenges.

The public infrastructure challenges our Nation is currently facing are daunting, and they will require innovative solutions. The infrastructure investments made by prior generations have benefited this country for over a hundred of years. Now it is this generation's responsibility to invest in our water infrastructure for future generations.

Thank you again for the opportunity to testify on this important legislation. The Family Farm Alliance and our members stand ready to assist you in your efforts and I will answer any questions you may have.



Protecting Water for Western Irrigated Agriculture

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June 7, 2018

The Honorable John Barrasso, M.D., Chairman
The Honorable Thomas Carper, Ranking Member
United States Senate
Committee on the Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510.

Re: Questions for the Record

Dear Chairman Barrasso and Ranking Member Carper:

On behalf of the Family Farm Alliance, I thank you for the opportunity to testify before your May 9, 2018 Committee legislative hearing on S.2800, "America's Water Infrastructure Act of 2018". It was an honor to represent the family farmers and ranchers our organization represents in the 17 Western states.

Following the hearing, Chairman Barrasso submitted the following question for the record:

Mr. Riley, this legislation would reauthorize the Indian Irrigation fund through the end of fiscal year 2028. This important program provides resources for maintenance, repair, and replacement activities for aging Indian irrigation projects used by tribal and non-tribal ranchers to grow crops and raise livestock in Wyoming, Montana, and many other western states. Can you elaborate as to why it is so important to the livelihoods of ranchers who use these irrigation systems to repair these systems?

This is a very good question. Indian Irrigation Projects on Montana's seven reservations are in disrepair, especially when compared to Bureau of Reclamation (Reclamation) projects. Most of the projects were built at the same time as Reclamation projects, but operations and maintenance activities for the Indian Projects have generally been underfunded. Often times, much of the land owned within and under Indian projects is held in fee by non-Indian interests, while the project is operated by the Bureau of Indian Affairs (BIA).

Over the course of my 35-year career, I would rate over half of the BIA Irrigation projects I have reviewed as barely operational. I would rate perhaps another 15% as only able to operate at high- or flood-water conditions, which considerably reduces the value and return on these projects. As grave as the infrastructure condition is on some of the 100-year old Reclamation projects, I believe BIA projects are far worse, with some exceptions.

These irrigation projects are closely tied economically to the reservations and local communities. When they can only function at a very limited level, the ability to produce high input and value crops - such as sugar beets, dairy quality alfalfa hay, corn, and malt barley - is significantly impaired. Repairing and maintaining these projects to increase agricultural production imparts benefits that go well beyond the reservation boundaries and generates regional economic benefits for both tribal and non-tribal residents.

Because of these issues, some tribal lands within these projects return no money and others can only produce minimal crops such as grass hay because of operational and drainage issues. Reauthorizing the Indian Irrigation fund through the end of FY 2028 would certainly provide much needed resources for maintenance, repair and replacement activities used by tribal and non-tribal ranchers alike. These activities in turn will contribute to improved returns and feed production for the ranchers served by Indian Irrigation projects.

Thank you again for this opportunity to work with your Committee.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Pat Riley

Pat Riley
Roundup, Montana

Senator BARRASSO. Thank you very much, Mr. Riley.
Mr. Sternberg.

**STATEMENT OF DENNIS STERNBERG, EXECUTIVE DIRECTOR,
ARKANSAS RURAL WATER ASSOCIATION**

Mr. STERNBERG. Thank you.

Good morning, Chairman Barrasso, Senator Boozman, and members of the Committee. It is an honor to be here, and we are grateful that you have included the voice of rural America in this hearing.

Thank you, Senator Boozman, for consistently listening to and helping rural Arkansas, including holding the first hearing on Senator Wicker and Senator Heitkamp's technical assistance bill, which is contained in today's legislation. And thank you, as well, for sponsoring the SRF WIN with Senator Booker.

Rural and small town USA depends on this Committee to ensure that the interests of rural communities are contained in Federal legislation. The Great Compromise of 1787 that allows for proportional representation of States, including very rural States, in Federal policy is alive and well in this Committee and in your legislation. Thank you for that, Senators Barrasso, Carper, Inhofe, and Cardin. Rural America is very appreciative for the very helpful and beneficial provisions in your water legislation, America's Water Infrastructure Act of 2018, and we urge its passage and enactment.

My name is Dennis Sternberg, and I am the Executive Director of Arkansas Rural Water Association, a non-profit association of small and rural community water and wastewater utilities in Arkansas. But I also am here representing the National Rural Water Association, which has over 31,000 member community utilities.

We are very appreciative that your legislation includes numerous drinking water and clean water provisions that make the America's Water Infrastructure Act a comprehensive water legislative package. I would like to focus my comments on the important and beneficial provisions under Title 5.

Section 5004, Technical Assistance. Approximately 80 percent of the country's 14,500 wastewater utilities serve populations fewer than 10,000. As you know, small and rural communities have a much more challenging time complying with Federal Clean Water Act permits and operating complex wastewater systems due to the lack of technical resources in small communities. This legislation provides a solution to the lack of technical resources in small communities by providing technical experts, as we call them, Circuit Riders, in each State to be shared by small and rural communities. For these Circuit Riders to be effective and helpful, they must be able to directly travel to any given community to work specifically to solve any of the specific problems.

Section 5010, the Water Workforce Investment. We welcome this new Federal attention and emphasized mission for water workforce development. Like me, when I first started working, not every young person entering the work force necessarily has the option to go to college. A college degree is of value, but it is not required. A true apprenticeship model would be a welcome enterprise for the water worker universe. In any given day, water workers may be operating heavy equipment to repair broken lines, working with

toxic chemicals, welding, conducting tests, operating process controls, complying with Federal rules, managing construction, and the list goes on.

Section 5011, Sense of Congress Relating to the State Revolving Funds. Thank you for supporting the funding for the SRFs. They are essential in funding water infrastructure and projects to comply with the Federal rules, especially the small and rural communities in our State and the country that have more difficulty affording service due to lack of population density.

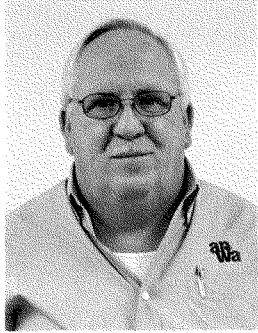
Section 5012, the GAO Study on WIFIA Projects. We hope the GAO will review the WIFIA program considering it does not require any economic needs based targeting, credit elsewhere means testing, or focus on compliance. Small and rural communities support Senator Boozman and Senator Booker's SRF WIN Act, which improves WIFIA by authorizing an opportunity for States to direct some portion of the WIFIA funding to be used by each State's SRFs.

Section 5006, Water Infrastructure Flexibility. We support the legislation for improving the current affordability analysis used by EPA to make compliance reasonable on ratepayers, especially in economically disadvantaged populations. Under the Safe Drinking Water Act, EPA adopted a policy that families can afford annual water rates of 2.5 percent of the median household income, which adversely impacts rural communities that have higher percentages of people living in poverty and the lower MHI.

This Committee is very important to rural and small town America, and we are grateful for the opportunity to testify today for the attention and consideration you have provided in crafting this most recent legislation.

Thank you very much.

[The prepared statement of Mr. Sternberg follows:]



**Dennis Sternberg, CEO
Arkansas Rural Water Association
Lonoke, Arkansas**

Dennis Sternberg is CEO of Arkansas Rural Water Association (ARWA) and is starting his 40th year in the water and wastewater business. Dennis started in January 1979 attending the Neosho Missouri Water & Wastewater Technical School and graduated with "Highest Honors". Dennis then was hired by the City of Bull Shoals, AR. and for the first 9 years was employed by the City of Bull Shoals. He then accepted a position with National Rural Water Association for 15 months.

Arkansas Rural Water Association offered him a position in March of 1989 and Dennis worked as a Field Representative until March of 1993 when Dennis became CEO of ARWA, where he continues to serve in that position today.

In 2006 Dennis received the Executive Director of the Year Award from National Rural Association and in 2009 the United States Department of Agriculture and National Rural Water Association recognized Dennis for his "Leadership In Emergency Response Preparation".

Dennis holds the highest water and wastewater licenses in Arkansas, a Class IV Water Distribution and Class IV Water Treatment and Class IV Wastewater License.

Dennis is married to Mary Grady Sternberg and they live in Greenbrier, AR. and have three children, Amber Grady Jones, Stephen Grady and Denise Sternberg French and two precious grandchildren Scout French and Grady French.

For more information on ARWA go to: www.arkansasruralwater.org.



TESTIMONY OF
DENNIS STERNBERG
 EXECUTIVE DIRECTOR OF THE
ARKANSAS RURAL WATER ASSOCIATION
 ON BEHALF OF THE
NATIONAL RURAL WATER ASSOCIATION
 BEFORE THE
**UNITED STATES SENATE COMMITTEE ON
 ENVIRONMENT AND PUBLIC WORKS**

MAY 9, 2018

S. _____, *America's Water Infrastructure Act of 2018*

Good afternoon, Chairman Barrasso, Senator Boozman and Members of the Committee. It is an honor to be here and we are grateful that you have included a voice for rural America at this hearing. Thank you, Senator Boozman for consistently listening to and helping rural Arkansas including holding the first hearing on Senators Wicker and Heitkamp's technical assistance bill which is contained in today's legislation – and thank you as well for sponsoring the "Securing Required Funding for Water Infrastructure Now Act" with Senator Booker.

Rural and small town USA depends on this committee to ensure that the interests of rural communities are contained in federal legislation. The "*Great Compromise*" of 1787 that allows for proportional representation of states, including very rural states, in federal policy is alive and well in this committee and in your legislation. Thank you for that, Senator Barrasso; this has been very apparent since your first legislative hearing in February of 2017 that featured the interests of rural communities in federal infrastructure policy. Rural America is very appreciative for the very helpful and beneficial provisions in your water legislation, "*American's Water Infrastructure Act of 2018*," and we urge its passage and enactment.

My name is Dennis Sternberg, and I am the Executive Director of the Arkansas Rural Water Association – a non-profit association of 563 small and rural community water utilities in Arkansas. I am also representing the National Rural Water Association which has over 31,000 community members. Our mission is to enhance drinking water and wastewater service, safety, compliance and quality in small and rural communities.

My main message to the committee today is that the small and rural communities in all states support your water legislation, "*American's Water Infrastructure Act of 2018*." We appreciate the balance crafted into the legislation that has allowed for the broad bipartisan and stakeholder support that is necessary for passage in Congress. We applaud the committee for striking the delicate balance and compromise in crafting such a comprehensive legislative water package – a great accomplishment. We urge the committee and the Senate to pass it as soon as possible to help small communities with the operation of their wastewater utilities and compliance with all the federal regulations under the Clean Water Act.

We are very appreciative that your legislation includes numerous substantive and necessary Title 5 drinking water and clean water provisions beyond the traditional Corps of Engineers provisions that make the *"American's Water Infrastructure Act of 2018"* a comprehensive water legislative package. I would like focus my comments on the important and beneficial water provisions under Title 5.

Section 5004. Technical Assistance for Treatment Works

We are very appreciative of Senator Wicker and Heitkamp's sponsorship of S. 518, "The Small and Rural Community Clean Water Technical Assistance Act" and support its inclusion in the *"American's Water Infrastructure Act of 2018,"*

Most all of our country's sewer systems or wastewater utilities are small. Approximately 80 percent of the country's approximately 14,500 wastewater utilities serve a population of fewer than 10,000 persons. In Arkansas, for example, approximately 340 of the 370 community wastewater utilities serve small communities (i.e. less than 3 million gallons per day of flow). In Illinois, it is approximately 700 of 800; in Maryland, it is 130 of 170; and in Mississippi, it is approximately 270 of 300.

Small and rural communities have more difficulty affording public wastewater service due to lack of population density and lack of economies of scale. This challenge is compounded by the fact that rural communities have lower average median household incomes and often have higher rates of poverty. Likewise, we have a much more challenging time complying with our federal Clean Water Act permits and operating complex wastewater treatment systems due to the lack of technical resources in small communities. While we have fewer resources, we are regulated in the exact same manner as a large community - and often operating similarly complex treatment systems that are smaller in scale but no less sophisticated to operate and trouble-shoot. Many small communities may only have one operator with multiple duties, not just wastewater treatment - while a large community may have a team of technical experts including engineers, chemists, and highly trained operators - all as part of their full-time staff. S. 518 provides a solution to the lack of technical resources in small communities by providing technical experts, we call them Circuit Riders, in each state to be shared by all small and rural communities who are in need of assistance. A Circuit Rider is a person with expertise in wastewater treatment operation, maintenance, governance and compliance who constantly travels the state to be available on-site to any community in need of assistance. For these Circuit Riders to be effective and helpful, they must be available to travel directly to any given community to work specifically with a community's unique treatment and personally educate that operator, mayor, or other local official on how to solve their particular problem. They have to be available when the community needs the help which can be nights, winters, after natural disasters, weekends, etc. Also, they must be non-regulatory to gain the trust of the local communities. Every small community wants to provide quality wastewater to protect their citizens and the environment, but they need to know, often with hands-on demonstration, just how to operate their wastewater systems. Circuit Riders operate free of charge to small communities which often saves the community many thousands of dollars from having to hire consultants or open themselves to civil penalties under the Clean Water Act - they only work in the interest of the small community they are assisting.

I started working for Arkansas Rural Water Association as a Circuit Rider. In this position, I traveled to every, yes every, small town with a sewer system to help them at some point. I often visited communities just to check in on them, develop a peer-to-peer relationship and keep educating them on how to best operate their utilities.

The small town of Kensett, Arkansas provides a good recent example of technical assistance. Last year, the Kensett Waterworks called for help with their sewer systems concerning a problem with their activated sludge plant. The plant had suddenly become upset, the clarifier was not settling and

they were experiencing pass-through to the chlorine contact chamber resulting in cloudy, dirty looking effluent and noncompliance. A rural water Circuit Rider traveled to the community and inspected the plant and their records and noticed a decline in the sample results over a four month period. After discussing several ideas, it was found that the return sludge pump didn't appear to be working properly. This finding led the Circuit Rider to disassemble the pump and line to clean them. At this point, they found the cause of the problem – the line had been blocked by biological growth. After clearing the lines and pumps, the Circuit Rider recommended they feed some artificial enzymes and food supplements to try to jump-start the recovery of the plant. A follow-up visit after four days found that conditions had greatly improved. In addition to providing the technical solution to their problem, this assistance saved the community approximately \$1,000 per day in potential fines. If enacted and appropriated, S. 518 would allow for thousands of similar assistance events each year; every Circuit Rider can visit over 20 communities in a month.

The Small and Rural Community Clean Water Technical Assistance Act would authorize two new technical assistance provisions under CWA that are similar to provisions currently authorized under the Safe Drinking Water Act. First, S. 518 would establish a federal Clean Water Act (CWA) technical assistance program, administered by the EPA, to assist small public wastewater treatment systems (those serving not more than 10,000 people) in complying with CWA regulations. The bill would authorize \$15 million a year over five years for technical assistance. Second, the bill would authorize states administering Clean Water SRFs to use up to two percent of their state grant to fund technical assistance initiatives to small wastewater treatment works in their respective states. A similar program currently is authorized and operating within the states' Safe Drinking Water SRF.

Section 5008. Study on Intractable Water Systems

Small communities remain very interested in discussing policies to encourage compliance; we believe there are many unutilized initiatives to expeditiously improve compliance that would be supported by small and rural local governments. We understand that EPA has set a target to halve the rate of noncompliance in 3 years. Most small community noncompliance with the Safe Drinking Water Act and Clean Water Act can be quickly remedied by on-site technical assistance and education. The current federal regulatory structure is often misapplied to small and rural communities because every community wants to provide safe water and meet all drinking water standards. Much of the noncompliance with EPA water rules (including those for what EPA calls "health" violations) is not necessarily a public health risk. In addition to a greater emphasis on technical assistance, strengthening the state revolving fund targeting to communities in noncompliance would provide additional funding for compliance solutions including partnerships if locally decided. Additional technical assistance and state revolving fund targeting are the most effective ways to achieve reductions in noncompliance. If a community is out of compliance with the Safe Drinking Water Act, civil enforcement can drive a community to a compliance solution. However, they should be able to choose their preferred compliance solution whether it be new treatment, regionalization, technical assistance, exemptions, variances, governmental changes, etc. Under the Safe Drinking Water Act, state regulators (or states) have broad discretion in applying civil penalties, binding administrative orders, or even condemnation for noncompliance and are able to use that discretion to incentivize compliance solutions including very detailed administrative compliance orders. States have very helpful guidance on the use of their enforcement authorities to influence compliance. Any new Safe Drinking Water Act (SDWA) federal authorities that could assist, result in, or give preference to the ability of a for-profit water corporation to assume the water infrastructure of a local government over local objections would be very controversial and not in the best interests of the local citizens. Please consider a general SDWA provision prohibiting this outcome.

Section 5010. Water Infrastructure and Workforce Investment

We welcome this new federal attention and emphasized mission for water workforce development. It takes more than 380,000 highly skilled water and wastewater personnel to ensure the public supply of safe drinking water and to protect our lakes, streams and groundwater. Advancements in water treatment and supply technology have increased the skills and training required of this workforce. Water professionals are ultimately responsible for meeting stringent regulatory standards, replacing aging infrastructure, recruiting and training new operations specialists, and responding to and recovering from disasters.

In addition to increasing professional demands, utilities will soon be forced to replace many of their most experienced employees. Over the next decade, the water sector is expected to lose between 30 and 50 percent of the workforce to retirement. Many of these employees have worked at the same utility for the majority of their careers, and they will depart with decades of valuable institutional knowledge.

NRWA and state rural water associations currently provide training on operator certification, financial sustainability, environmental compliance, utility management and governance to 80,000 water professionals annually in all 50 states. In July, 2017, NRWA announced the certification of our "National Guideline Standards of Apprenticeship" with the U.S. Department of Labor. This standard will ensure a well-trained and capable water sector workforce to meet the increasing demands of the water industry. Our apprenticeship program is tailored to water system operations specialists and wastewater system operations specialists. Additional apprenticeships programs are in the works for water utility system customer service personnel and technical assistance specialists.

Section 5011. Sense of Congress Relating to State Revolving Funds

When thinking about national water infrastructure proposals, please remember that most water utilities are small and have more difficulty affording public water service due to lack of population density and corresponding lack of economies of scale. While small communities have fewer resources, we are regulated in the exact same manner as a large community; we outnumber large communities by a magnitude of 10-fold, and federal compliance and water service is often a much higher cost per household. Small community water infrastructure projects are more difficult to fund because they are smaller in scale – meaning numerous, very complicated applications have to be completed and approved compared to one large project. This is compounded by the reality that small communities lack the administrative expertise to complete the necessary application process. Because water infrastructure is often less affordable (i.e. a much greater cost per household) in rural America, a water infrastructure project poses a greater financial risk compared to a metropolitan project and, very importantly, requires some portion of a grant, not just a loan, to make the project feasible. The higher the percentage of grants required to make a project work results in less money repaid to the infrastructure funding agency and a correlating diminution of the corpus fund. The state revolving loan funds (SRFs) address these principled federal policy objectives by requiring that federal subsidies be targeted to the communities most in need based on their economic challenges combined with the public health necessity of the project. Also, the SRFs for additional subsidization include forgiveness of principal that can be used in disadvantaged communities. Commonly, low income or disadvantaged communities do not have the ability to pay back a loan, even with very low interest rates, and require some portion of grant or principal forgiveness funding to make a project affordable to the ratepayers.

There is a current misconception among some stakeholders that the SRFs have a limitation on size or scope of a water project and don't leverage federal dollars. States can currently leverage a smaller amount of water funding to create a much larger available loan portfolio. Similarly, states can use their federal SRF grants to leverage larger loan portfolios. According to the EPA, State SRF programs can increase funds through different types of leveraging such as:

- Using fund assets as collateral to issue tax-exempt revenue bonds;

- Using funds from one SRF program to secure the other SRF program against default through cross-collateralization;
- Using funds from one SRF program to help cure a default in the other SRF program through a short-term cross-investment; and
- Increasing disbursements to incrementally fund multiple projects within a capital improvement plan.

A 2015 Government Accountability Office (GAO) report on the state revolving funds found: "EPA tracks the amount of additional loans that are made because of leveraged bonds. States' Clean Water SRF programs have issued approximately \$31.8 billion in loans with leveraged bonds, and states' Drinking Water SRF programs have made approximately \$5.3 billion in additional loans with leveraged bonds..." [Source: State Revolving Funds, August 2015 GAO- 15-567]

Regarding the misconception some stakeholders are advancing that the SRFs have a limitation on size or scope of a water project, there is no size or scope limitation for water projects under the state revolving funds. According to EPA, most SRF funding is allocated to large communities:

- Approximately 72 percent of clean water SRF funding is awarded to large communities (Clean Water State Revolving Fund Annual Review).
- Approximately 71 percent of drinking water SRF funding is awarded to large communities (Drinking Water State Revolving Fund National Information Management System).

A simple review of projects funded by the SRFs show numerous projects that cost over 50 million dollars. It appears that the SRFs are used in every large water project in the country. This assertion should be verified by the EPA. The state of New York lists multiple projects funded by the drinking water SRF that cost over one billion dollars

Section 5012. GAO Study on WIFIA Projects in Small communities, Rural Communities, Disadvantaged Communities, and Tribal Communities

One of our concerns with the new Water Infrastructure Finance and Innovation Act (WIFIA) is that it lacks any needs-based targeting, credit elsewhere means-testing, or focuses on improving public health or compliance. In fact, WIFIA subsidies are limited to communities that have good credit (33 USC § 3907), thus precluding WIFIA subsidies from addressing the country's most needy water problems including Flint, Border Colonias, and other more rural low-income communities with contaminated drinking water. Small and rural communities support Senators Boozman and Booker's "Securing Required Funding (SRF) for Water Infrastructure Now (WIN) Act" which improves the Water Infrastructure Finance and Innovation Act (WIFIA) that was authorized by the Water Resources Reform and Development Act of 2014. As currently authorized, WIFIA allows federal water infrastructure funding to circumvent states' determined prioritization (that is determined annually by states in their intended use plans) by allowing the U.S. EPA to direct funding to water projects without regard to states' priorities. The legislation improves the status quo by authorizing an opportunity for states to direct some portion of WIFIA funding to be used by each of the states for their predetermined priority projects based on need, merit, and state interests.

In general, states should be provided a right of first refusal to direct the proportional amount of any WIFIA funding to their state SRF. We believe your Governor would also agree with our suggestions.

Section 5006. Water Infrastructure Flexibility

Under the Safe Drinking Water Act, the EPA must make a finding that their rules are "affordable" [(42 U.S.C. 300g-1(b)(15)(A))]. To determine affordability, EPA adopted a policy that families can afford annual water rates of 2.5% of median household income (MHI). The use of MHI computed as a national aggregate as the sole metric for determining affordability has many problems and should be revised to be reasonable for small communities and allow access to affordable compliance treatment options.

The Congressional Research Service (Tiemann – October, 2007) published a report on the Safe Drinking Water Act for Congress, including a section on variances and affordability for small communities containing the following:

"Prompted by intense debate over the revised arsenic standard and its potential cost to small communities, the [Congressional] conference report for EPA's FY2002 appropriations (H.Rept. 107-272) directed EPA to review its affordability criteria and how small system variance programs should be implemented for the arsenic rule. EPA began the review and sought the advice of the EPA's National Drinking Water Advisory Council (NDWAC) and Science Advisory Board (SAB). After considering recommendations from its affordability work group, the NDWAC reported to EPA in 2003. The council acknowledged the statutory basis for small system variances and recommended changes, but cautioned that "significant practical, logistical, and ethical issues mitigate against the use of variances." The National Rural Water Association, a member of the NDWAC work group, dissented and issued a separate report urging EPA to adopt a safe and affordable variance approach that would make variances available to small communities, as authorized by Congress."

It appears EPA agrees that their affordability policy is not appropriate for small communities. After reviewing the competing recommendations cited in the CRS report, EPA concluded the following in March, 2006: *"Some stakeholders have argued that the current criteria are too stringent and fail to recognize situations in which a significant minority of systems within a size category may find a regulation unaffordable. After seven years of experience with the current criteria, EPA agrees it is time to consider refinements to address the situations of communities with below average incomes or above average drinking water and treatment costs (FR p.10671 – March, 2007)." EPA has not finalized a new policy after making this declaration in 2006.*

Problems with the Current EPA Policy

- EPA has stated that the purpose of their affordability determination is to "look across all the households in a given size category of systems and determine what is affordable to the typical, or middle of the road household" [Federal Register (Jan. 22, 2001) 6975-7066]. EPA's MHI standard does not consider the quantity, concentration, rural demographics, and financial abilities of low-income families or disadvantaged populations to afford the rule as required by the Agency's Environmental Justice Policy [Executive Order 12898].
- EPA's current policy does not consider the important differences between median-income households and low-income households that are unable to finance and pay costs of this magnitude. MHI masks the financial hardship that low-income communities and low-income households have in meeting many of the existing regulations. The purpose of a national affordability determination should be to identify the likelihood that small water systems will be able to afford to comply with a regulation without creating a serious risk of adverse health consequences. The fact that a certain level of expenditure is affordable to the median income household in a community tells us very little about the ability of the low-income households in the community to afford the same level of expenditure. EPA concluded that it does not accept the contention that "an increase in water bills would force a low-income household to trade off health care or some other 'essential' expenditure to pay the water bill [Federal Register (Jan. 22, 2001) 6975-7066]."

- There is a weak correlation between MHI and the level of poverty in a community; at the median income, the level of poverty can have a wide range (i.e. zero to more than 20 percent in U.S. counties). Communities with the same median income can have poverty rates and the presence of low-income households that vary drastically from one another.
- In 1996, with the passage of the Safe Drinking Water Act, small town America welcomed a new law with provisions to assist small communities as described by Senator Baucus on the Senate Floor, *"The bill provides special help to small systems that cannot afford to comply with the drinking water regulations and can benefit from technologies geared specifically to the needs of small systems. Here is how it would work. Any system serving 10,000 people or fewer may request a variance to install special small system technology identified by EPA. What this means is that if a small system cannot afford to comply with current regulations through conventional treatment, the system can comply with the act by installing affordable small system technology."* To date, EPA has determined all regulations are affordable for small communities and therefore has not allowed any use of small system variance technologies.

EPA's policy of assuming all families and communities can afford the same rate increases appears to adversely impact rural communities that have higher percentages of people living in poverty. We believe that EPA's affordability determinations need to be modified to adequately reflect the ability of low-income families and communities to afford the rule without harming their communities.

Closing

This committee is very important to rural and small town America; every federal dollar that has been granted to the many thousands of small towns to build, expand, and maintain their drinking water and wastewater infrastructure through the state revolving funds was authorized by this committee. Also, every federal regulation under the Safe Drinking Water and the Clean Water Act was likewise authorized by this committee. We are grateful for the opportunity to testify today and grateful for the numerous opportunities this committee has provided rural America to be included in the crafting of federal water and environmental legislation and policy.

Senate Committee on Environment and Public Works
Hearing entitled, “Legislative Hearing on S.2800, America’s Water Infrastructure Act of 2018”
May 9, 2018
Questions for the Record for Mr. Sternberg

Chairman Barrasso:

1. Mr. Sternberg, this bill provides for technical assistance for treatment works in small and rural communities. Specifically, it authorizes EPA to provide technical assistance grants to small and medium wastewater systems so they can comply with the Clean Water Act. Can you provide details as to why the technical assistance is so important to small and rural communities? Can you also explain why specifically on site technical assistance is so important to these communities?

(June 28, 2018)

Most U.S. water utilities are small; over 91 percent of the country’s 50,259 drinking water systems serve communities with fewer than 10,000 persons. These communities, many of which are small and rural communities, often have difficulty providing safe and affordable drinking and water and sanitation due to limited economies of scale and lack of technical expertise. This challenge is compounded by the fact that rural communities have lower average median household incomes and often have higher rates of poverty. Likewise, these communities have a much more challenging time complying with federal Clean Water Act permits and operating complex wastewater treatment systems due to the lack of technical resources. While small and rural communities have fewer resources, we are regulated in the exact same manner as a large community - and often operate similarly complex treatment systems that are smaller in scale but no less sophisticated to operate and trouble-shoot. Many small communities may only have one operator with multiple duties, not just wastewater treatment - while a large community may have a team of technical experts including engineers, chemists, and highly trained operators - all as part of their full-time staff. On-site, circuit rider-type technical assistance provides a solution to the lack of technical resources in small communities by providing technical experts to be shared by all small and rural communities in need of assistance.

In fact, the type of assistance most helpful to small communities is this “on-site” and in-field technical service provided by circuit rider-type technicians that is shared within a state.

If Congress authorizes additional technical assistance for medium-sized water systems, we would be eager to expand our circuit rider-type technical assistance to medium-sized water utilities. We respect the findings of the Congressional authorizing committees as the need for federal technical assistance to medium-sized water utilities increases.

The circuit rider concept was designed by Congress in 1976 in response to the passage of the Safe Drinking Water Act in 1974 to allow small communities access to technical expertise that is available to larger communities and to allow the new law to be implemented effectively in the over 54,000 small and rural water systems throughout the country (at that time).

Each community's water infrastructure is unique, which means technical assistance must be available to address a community's particular problem. These small public water systems and the communities they serve rely on on-site technical assistance for meeting federal training regulations, complying with EPA regulations, navigating EPA fines, and operating their drinking water utilities. Of the billions of dollars provided to EPA by Congress each year, smaller communities who lack access or resources to obtain this kind of technical expertise will tell you the most benefit comes from the dollars provided to on-site technical assistance provided by circuit riders. In addition, the value of this funding is amplified as these staff members often educate and train others to maintain these water systems.

All communities want to ensure quality water and stay in compliance, and this is more easily achieved with the necessary technical resources that this funding would provide communities with small public water systems. Some communities have just one person available to provide this technical assistance, so this funding is critical to ensuring access to safe and affordable drinking water and sanitation.

All circuit riders have expertise in wastewater treatment operation, maintenance, governance and compliance and they constantly travel their state to be available on-site to any community in need of assistance. For these circuit riders to be effective and helpful, they must be available to travel directly to any given community to work specifically with a community's unique treatment system and personally educate that operator, mayor, or other local official on how to solve their particular problem. They have to be available when the community needs the help which can be nights, winters, after natural disasters, weekends, etc. Also, they must be non-regulatory in practice to gain the trust of the local communities. Circuit riders operate free of charge to small communities which often saves the community many thousands of dollars from having to hire consultants or open themselves to civil penalties under the Clean Water Act – they only work in the interest of the small community they are assisting.

A typical on-site contact could include ensuring the water service is protected and secure, discovering and repairing a faulty gas chlorination system, assisting a community to remove and replace the filtration media, training a new operator to run that particular treatment system, finding engineering and construction errors in a new sewer system, implementing a non-point pollution prevention plan, solving lead and copper rule problems, or completing all the paperwork for funding programs including the state revolving funds. It is often more difficult for small communities to access SRF funds than large communities due to the administrative burden. Often the assistance saves thousands of dollars for the community and keeps the system in long-term compliance with EPA rules – and it is the only assistance available to the community. Drinking water safety is not a good fit for a regulatory model because everyone wants to provide safe water. Local water supplies are operated by people who are locally elected and whose families drink the water every day. Enforcement may not be the best way to help a small disadvantaged community provide better drinking water.

What small community local operators and government officials want and need is someone they trust to teach them how to comply in a simple and affordable manner – and similarly, how to operate and maintain their treatment system. Again, this often means being available to travel to the community on nights and weekends – when the problem occurs. Each community's water infrastructure is unique which means technical assistance must be available to address that community's particular problem. This is why circuit riders must be available to travel directly to local communities on their time schedule – and have hands-on operational experience in many different water systems. Additionally, it is essential that the assistance

provider only represents the community's interest in order to identify the most economical solution and provide the best advice for local decision-makers.

In 2012, the Agency was provided discretion over the allocation of annually appropriated Safe Drinking Water Act technical assistance funding. The Agency used the discretion to eliminate the two full-time circuit rider-type positions that were operating in all states. In response to concerns raised by our rural and small communities, Congress enacted legislation to mandate that the Agency direct the technical assistance funding to where it is most helpful.

In 2015, Congress enacted the *"Grassroots Rural and Small Community Water Systems Assistance Act"* which requires that the Agency provide a "preference" in determining the awarding of the funding. This operative "preference" provision ensures Congressional intent is followed by requiring the Agency to direct funding to organizations that small and rural communities find are most beneficial: *"To ensure that technical assistance funding is used in a manner that is most beneficial to the small and rural communities of a State, the Administrator shall give preference under this paragraph to nonprofit organizations that, as determined by the Administrator, are the most qualified and experienced and that the small community water systems in that State find to be the most beneficial and effective."*

The Agency essentially disregarded the law when it neither used, considered, or implemented the "preference" authorization in the competition for the funding (October 20, 2017, Request for Applications) nor in the awarding of the funding (April 11, 2018, Announcement). The Agency actually programmed the funding before the fiscal year 2018 Consolidated Appropriations Act had been enacted and the provisions had significantly changed from the previous year's provisions.

Implementation of the provisions in the *"Grassroots Rural and Small Community Water Systems Assistance Act"* will simplify the Agency's competitive bidding process and remove subjectivity. As stated in the bill's House Committee Report, *"The Committee does not intend S. 611 to require EPA to conduct national surveys to determine which non-profits are most qualified and experienced and that small public water systems find most beneficial and effective. Instead, the Committee prefers that the Agency minimize the Administrative burden on itself, the non-profits, and the eligible small and rural water public water systems in meeting the requirements of the law."* This allows the Agency to simply give preference to small community water system applications (or assistance) and match them to the most beneficial and effective organizations.

On June 9, 2017, seven U.S. Senators (including the Chairman) urged the new EPA Administrator to use his executive discretion to award fiscal year 2017 funding under the authorities in the Wicker/Heitkamp bill. On July 25, 2017, EPA replied to the Senators and stated it would comply. EPA's October 20, 2017 Request for Applications (RFA) contains no mention of PL 114-98 or its provisions for governing the awarding of technical assistance funds. And EPA did not use the PL 114-98 authorities in the awarding of the funding (April 11, 2018).

Please contact Mike Keegan <keegan@ruralwater.org> with the National Rural Water Association with any questions.

Dennis Sternberg
Executive Director
Arkansas Rural Water Association

Senator BARRASSO. Thank you, Mr. Sternberg.
 Ms. Swallow, thanks so much for being with us today. Welcome.

**STATEMENT OF KRISTINA SWALLOW,
 PRESIDENT, AMERICAN SOCIETY OF CIVIL ENGINEERS**

Ms. SWALLOW. Thank you. Chairman Barrasso, Ranking Member Carper, and members of the Committee; thank you for inviting me here today to testify on the importance on a long-term, strategic investment in our Nation's water resources.

I am Kristina Swallow. I am a licensed professional engineer, and I am the President of the American Society of Civil Engineers, a professional engineering society representing over 150,000 members.

It is wonderful to be back here in Washington, DC, where I previously served for 3 years as an AAAS fellow and legislative aide to Senator Tom Udall.

Many of you are familiar with ASCE's Infrastructure Report Card that we release every 4 years. ASCE's 2017 Report Card gave our Nation's infrastructure a grade of D+ and determined that there is an investment gap of \$2 trillion over the next 10 years. Our Failure to Act Economic Study found that our Nation's deteriorating infrastructure and growing investment deficit hurts our Nation's economy. Failing to invest by 2025 carries enormous economic costs, to the tune of nearly \$4 trillion in lost GDP and 2.5 million jobs lost in 2025 alone. It also costs every single family in our Nation \$3,400 a year in disposable income.

WRDA bills are critically important to the health of our Nation's water resources, which in turn play a crucial role in the Nation's economy, public safety, and the preservation of our environmental resources. Our levees, dams, inland waterways, and ports protect hundreds of communities, support millions of American jobs, and generate trillions of dollars of economic activity.

As you are well aware, many of these infrastructure assets have reached or exceeded the end of their design life and need to be repaired and modernized. Two programs that ASCE has long championed are the National Dam Safety Program and the National Levee Safety Program. Both are crucial components of risk reduction and protect communities, critical infrastructure, and trillions of dollars of property.

The National Dam Safety Program was reauthorized in WRRDA 2014 and has helped inventory nearly 90,000 dams across the country, assessing their condition and providing training and tools to dam safety programs.

The National Levee Safety Program, enacted in WRRDA 2014, has helped to create an inventory of our Nation's levees. We now know the location and condition of nearly 30,000 miles of levees. However, there is much work to be done to further inventory the thousands of miles of levees not yet in the data base.

We are pleased that America's Water Infrastructure Act of 2018, or WRDA 2018, includes a reauthorization of both programs.

ASCE is also supportive of alternative financing mechanisms for water resources projects, including the WIFIA program, which can be utilized by the Corps for a variety of water resources projects. We are pleased that this bill includes reauthorization of WIFIA and

we encourage the Corps to continue their implementation of the program.

ASCE championed Section 5014 of WRRDA 2014, authorizing the Corps to enter agreements with non-Federal interests to finance construction of at least 15 water resources development projects. We were pleased that President Trump's infrastructure proposal included provisions to remove barriers to implementation of this program. We urge the Committee to follow in the Administration's lead by authorizing a user fee collection and retention under this Corps pilot program.

Finally, we ask the Committee to include the SRF WIN Act in WRDA 2018. This legislation offers an innovative new tool to leverage limited Federal resources and stimulate additional investment in our Nation's infrastructure, while safeguarding against any cuts to the existing State revolving funds and WIFIA programs.

In conclusion, ASCE believes our Nation must prioritize investment in our water resources infrastructure systems. Strategic, robust, and sustained investments through long-term, reliable Federal funding, as well as through the utilization of alternative financing mechanisms must be made quickly if we hope to close the growing gap and restore America's world class infrastructure.

I thank you for holding this hearing. ASCE looks forward to working with you and the members of the Committee to find solutions to our Nation's water resources investment needs, and I look forward to taking your questions later.

[The prepared statement of Ms. Swallow follows:]



Kristina Swallow, P.E., ENV SP, F.ASCE
President
American Society of Civil Engineers

Kristina Swallow is the current president of the American Society of Civil Engineers (ASCE). Kristina is a civil engineering leader with more than 20 years of professional practice in water resources, transportation, and land development. Among her many past roles, she served as Region 8 Director, Region 8 Governor, Chair of the Education Activities and the Diversity and Women in Civil Engineering committees, and ASCE's 150th

Anniversary Steering Committee.

Kristina has a diverse professional background that includes serving as a program manager in the capital improvements division for the City of Las Vegas, as a transportation policy advisor for a U.S. Senator in Washington, DC, and working as a land development consultant in the fastest growing city in the United States, including five years as a small business owner.

She is passionate about civil engineering and the benefits of infrastructure for communities, especially transportation systems.

She is married to a civil engineer, Dave, and has three dogs and a cat. In her spare time, she enjoys running, aerial acrobatics, exploring new cities, and just trying new things.



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America's Water Infrastructure Act of 2018 Hearing

Wednesday, May 9, 2018

Committee on Environment and Public Works

U.S. Senate

Ms. Kristina Swallow, P.E., ENV SP, F.ASCE
2018 President of the American Society of Civil Engineers

*On behalf of the American Society of Civil Engineers

Introduction

Ms. Kristina Swallow, P.E. is the current president of the American Society of Civil Engineers (ASCE). She is a civil engineering leader with more than 20 years of professional practice in water resources, transportation, and land development as a consultant, small business owner, and with city government. In addition to many other roles within ASCE, she also served as ASCE's AAAS (American Association for the Advancement of Science) Congressional Fellow and as a Legislative Aide, working on transportation policy issues for three years for U.S. Senator Tom Udall of New Mexico.

Ms. Swallow holds a Bachelor of Science in Civil Engineering from the University of Arizona, as well as a Master of Science in Engineering from the University of Nevada, Las Vegas.

ASCE appreciates the opportunity to discuss the importance of long-term, strategic investment in our nation's water resources systems. We also want to thank the U.S. Senate Committee on Environment and Public Works for your efforts to keep the Water Resources and Development Act on a biennial authorization cycle. ASCE is eager to work with the Committee in 2018 to find ways to further improve our nation's vital water resources systems.

ASCE's 2017 Infrastructure Report Card and 2016 Economic Study, *Failure to Act: Closing the Infrastructure Investment Gap for America's Economic Future*

Infrastructure is the foundation that connects the nation's businesses, communities, and people, serves as the backbone to the U.S. economy, and is critical to the nation's public health and welfare. Every four years, ASCE prepares a comprehensive assessment of the nation's 16 major infrastructure categories in its *Infrastructure Report Card*. Using a simple, familiar A to F school report card format, the Report Card examines current infrastructure conditions and needs, assigning grades and making policy recommendations to raise the grades.

ASCE's 2017 *Infrastructure Report Card*¹ gave our nation's cumulative infrastructure grade a grade of "D+" and determined that there is an investment gap of \$2 trillion over the next 10 years. Additionally, ASCE's 2016 economic study, *Failure to Act: Closing the Infrastructure Investment Gap for America's Economic Future*², found that our nation's deteriorating infrastructure and growing investment deficit has a cascading effect on our nation's economy, impacting business productivity, gross domestic product (GDP), employment, personal income, and international competitiveness; in fact, our failure to act by 2025 carries an enormous economic cost to the tune of nearly \$4 trillion in lost GDP, which will result in a loss of 2.5 million jobs in 2025.

The economic consequences of our nation's infrastructure deficiencies also extend to families' disposable incomes, with each household in the U.S. losing \$3,400 each year through 2025; if left unaddressed, the loss will grow to an average of \$5,100 annually from 2026 to 2040. It is possible to close the infrastructure investment gap and avoid the economic consequences caused by this deficit, but it will require sustained and robust investment.

Our nation's water resources systems are crucial to our nation's economy, public safety, and the preservation and enhancement of our environmental resources. Our levees, dams, inland waterways, and ports protect hundreds of communities, support millions of American jobs, and generate trillions of dollars of economic activity. However, many of these infrastructure assets have reached the end of their design life, and the investment gap must be closed if we hope to both repair and modernize our water resources systems to be competitive in the 21st century.

Water Resources Systems

Dams & Levees

Our nation's 90,580 dams and over 30,000 miles of levees are critical components of risk reduction and protect communities, critical infrastructure, and trillions of dollars in property. However, it is estimated that \$80 billion is needed in the next 10 years to

¹ <https://www.infrastructurereportcard.org/>

² <https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/ASCE-Failure-to-Act-2016-FINAL.pdf>

maintain and improve the nation's levees, while the Association of State Dam Safety Officials estimates the cost of rehabilitating our nation's federal and non-federal dams to exceed \$64 billion. Included in this is the U.S. Army Corps of Engineers' (USACE) estimate that more than \$25 billion will be required to address dam deficiencies for Corps-owned dams; at the current rate of investment, these repairs would take over 50 years to complete.

Investment is needed to rehabilitate deficient dams and to complete the national inventory of levees outside of the USACE's authority. ASCE supported the Water Resources Reform and Development Act (WRRDA) of 2014's reauthorization of the National Dam Safety Program and the Water Infrastructure Improvements for the Nation (WIIN) Act's authorization of the High Hazard Potential Dam Rehabilitation Program. We are, however, concerned that the National Dam Safety Program consistently receives only a portion of its annual \$13.9 million appropriations, while the High Hazard Potential Dam Rehabilitation Program has yet to receive any appropriations. Likewise, WRRDA 2014 created a new National Levee Safety Program to promote consistent safety standards, create levee safety guidelines, and provide funding assistance to states for establishing participating levee safety programs, yet it has received no funding other than funding for the levee inventory.

Ports

The nation's 926 ports support over 23.1 million jobs and are responsible for \$4.6 trillion in economic activity. In fact, our ports serve as the gateway through which 99 percent of America's overseas trade passes. To remain competitive in the global market and to accommodate larger vessels, ports have been investing in their facilities and plan to spend over \$154 billion from 2016 to 2020 on expansion, modernization, and repair. However, ports are contending with larger container ships and do not always have adequate access to the user-fee funded Harbor Maintenance Trust Fund (HMTF), which would help these facilities prepare for larger vessels. Underinvestment in our nation's ports has resulted in, by some accounts, a 25 percent decrease in port productivity in the past ten years.

ASCE supported the provision in WRRDA 2014 designed to encourage the use of the HMTF revenues for its designated purpose. The HMTF's balance currently sits at over \$9 billion, but full appropriations of these funds have not yet occurred. Once fully funded, it will take five years of complete HMTF funding to dredge and restore channel depths and widths. ASCE urges the Committee to continue implementing the WRRDA 2014 agreement and increasing expenditures accordingly.

Inland Waterways

The USACE operates and maintains a vast network of 25,000 miles of inland waterways and 239 locks that support half a million jobs, deliver more than 600 million tons of cargo annually, and are the nation's connection to inland and ocean ports and international markets. Barge transport is the most fuel-efficient mode of the transportation of goods, but with a majority of locks and dams reaching well beyond their

50-year design life and thus requiring frequent shutdowns for maintenance and repairs, nearly half of all vessels traveling through our inland waterways experience delays.

ASCE supported the 2015 increase of the Inland Waterways Trust Fund user tax, and although recent increases in investment have resulted in some improvement in the projected completion date of many inland waterway lock and dam rehabilitation projects, funding must continue at a higher and more consistent level to meet the large backlog of needs.

ASCE also championed Section 5014 of WRRDA 2014, which authorizes the USACE to enter agreements with non-federal interests, including private entities, to finance construction of at least 15 authorized water resources development projects. We were pleased that President Trump's infrastructure proposal included several provisions to remove barriers to implementation of this program. Alternative financing and delivery mechanisms are an important new resourcing tool that can help the USACE meet the growing needs of our nation's inland waterways infrastructure.

ASCE was pleased that WRRDA 2014 authorized a new water infrastructure financing mechanism, the Water Infrastructure Finance and Innovation Act (WIFIA), to be administered by the USACE and the U.S. Environmental Protection Agency (EPA). The WIFIA concept is modeled after a similar transportation project assistance program, the wildly successful Transportation Infrastructure Finance and Innovation Act (TIFIA). Under this program, the USACE is authorized to provide WIFIA support for an array of projects, including environmental damage reduction projects, hurricane and storm damage reduction projects, flood damage reduction projects, coastal or inland harbor navigation improvement projects, and/or inland and intracoastal waterways navigation projects.

ASCE's 2016 economic study found that from 2026 through 2040, the average annual investment gap for waterside improvements, including dredging and lock and dam repair, is expected to be \$1.9 billion, which will result in an economic loss of \$2.8 trillion of GDP and 1.2 million fewer jobs in 2040 than would otherwise be expected with modernized water resources systems in place.

America's Water Infrastructure Act of 2018 – WRDA 2018 – Solutions

We are pleased with many of the provisions that have been included in America's Water Infrastructure Act of 2018, or WRDA 2018, including reauthorization of the National Dam Safety Program and the National Levee Safety Program.

We are also pleased with the bill's important alternative financing and delivery mechanisms, including a reauthorization of the WIFIA program, and we urge the USACE to continue its implementation of the WIFIA program.

Additionally, we support the provision that allows the USACE to retain user fees at recreation facilities for the use of operation, maintenance, and management at the site

where the fee is collected, and we urge the Committee to follow in the Administration's lead by authorizing new user fee collection and retention under the Section 5014 pilot program of WRRDA 2014.

We are disappointed that the bill does not include S. 2364, the Securing Required Funds for Water Infrastructure Now (SRF WIN) Act, a bill designed to help tackle our nation's water resources infrastructure investment deficit. Despite increased efficiency methods and sustainable practices, there is a growing gap between the capital needed to maintain drinking water and wastewater infrastructure and the actual investments made. By 2025, the disparity between needed and anticipated funding for drinking water and wastewater systems will be \$105 billion.

The SRF WIN Act is an innovative new financing mechanism that blends the most successful parts of the State Revolving Funds and WIFIA to create a program that gives State Infrastructure Financing Authorities access to WIFIA loans for drinking water and wastewater infrastructure. This program would offer a new and efficient tool to leverage limited federal resources and stimulate additional investment in our nation's infrastructure while safeguarding against any cuts to the existing State Revolving Funds and WIFIA program. We encourage the Committee to include this new program in WRDA 2018 and look forward to working with you on this important new water resources financing mechanism.

Finally, ASCE urges Congress to act quickly to address the widening investment gap for water resources systems. We ask Congress to:

- Pass a Water Resources Development Act this year, to continue the two-year cycle;
- In line with the President's infrastructure proposal, give the USACE contract authority for projects to avoid the stop-and-start of construction currently occurring because of the annual appropriations process;
- Fully utilize alternative financing and delivery methods, such as public-private partnerships, when appropriate, including implementation of both the USACE's WIFIA program and Section 5014 of WRRDA 2014, and;
- Fully appropriate funds for existing federal infrastructure programs that have been authorized, including:
 - the WIFIA program at \$175 million over five years;
 - the High Hazard Potential Dam Rehabilitation Program at \$445 million over ten years;
 - the National Dam Safety Program at \$13.9 million annually;
 - the National Levee Safety Program at \$79 million annually, and;
 - the Harbor Maintenance Trust Fund at the full amount of fees collected to be allocated for its intended purpose.

The projects funded by these programs have already proven to be successful; providing more funding to existing programs rather than creating new programs will reduce overhead costs and startup time while still allowing for significant and noticeable improvements across our nation's water resources systems.

In conclusion, ASCE believes our nation must prioritize the investment needs of our water resources systems to ensure public safety, a strong economy, and the protection of our environmental resources. Strategic, robust, and sustained investments, through long-term, reliable federal funding, as well as through the utilization of financing mechanisms, must be made quickly if we hope to close the growing funding gap and restore America's world-class infrastructure. We thank you for holding this hearing and look forward to working with the Committee to find solutions to our nation's water resources investment needs.

Senator BARRASSO. Thank you so much for your testimony.
Mr. Bullock, welcome back to the Committee. Look forward to hearing from you. Thank you, Mr. Secretary.

**STATEMENT OF HON. JEFFREY BULLOCK,
SECRETARY OF STATE, STATE OF DELAWARE**

Mr. BULLOCK. Thank you, Mr. Chairman, to my Governor, Tom Carper, to members of the Committee, for the privilege of appearing before you today and offering some brief remarks about the America's Water Infrastructure Act of 2018 and the importance of this legislation not just to my State and the Mid-Atlantic region, but to our Nation as a whole.

I am Jeff Bullock. I am the Secretary of State of the State of Delaware, but today I am here as the Chairman of the Diamond State Port Corporation. The Diamond State Corporation is a corporate entity of the State of Delaware. It was established in 1923, and it owns and operates the Port of Wilmington.

Our port, like many ports in America, touches the lives of millions of Americans every day. The banana you had for breakfast this morning came through the Port of Wilmington probably Monday or Tuesday of last week, and 3 weeks ago was growing on a tree somewhere in Central America. The grapes you enjoyed this winter were from Chile; also came through the Port of Wilmington. Those little clementines that we love to eat around the holidays, came from Morocco, also through our port.

Now, Senator Carper knows we are in the process of a planned expansion at the Port of Wilmington to provide more capacity for our existing customers and for future businesses, and that is one of the reasons that this bill is so important to us as we move forward.

Just let me say that over the last couple of years I have had the opportunity to visit a number of ports both in the United States and around the world, and perhaps more importantly, to talk to any number of port experts internationally, and I can tell you for certain that many of our ports, including my own in Wilmington, are falling behind and not able to keep pace with our competition.

Maintaining marine infrastructure such as public ports is essential to our Nation's economic future. Delaware and the Corps of Engineers have long enjoyed a great relationship for as long as I can remember and as long as I have been involved in the port, which goes back to the Carper administration, almost 25 years now, but the importance of the Corps as we move forward with this expansion is even more essential.

The reasons for that are pretty clear: we are in the midst of a rapidly changing global marketplace, and ensuring the Corps is running efficiently is more critical now than perhaps ever before. Ports are strong partners with the Corps of Engineers to ensure that we can meet the trading needs of our country and the needs of the flow of commerce and keep that moving forward.

But ports are also under an increasing amount of competitive pressure. Shippers are demanding greater efficiency and lower costs. Increased velocity, the rate at which our goods move through ports and arrive at their final destination, is now the measure of our success.

WRDA is an opportunity to look at process improvements, as well as make transformational changes in how our Nation provides resources to our seaports. Our regional ports also work closely with the American Association of Port Authorities and support the recommended changes and core processes that will make navigational projects move more efficiently and support stronger partnerships.

The amount of freight that is going to move through U.S. ports is going to continue to increase significantly. Our own Port of Wilmington has seen growth of 150 percent just in the last 8 years. I want to applaud the work of the Chairman and the Ranking Member on the provision included in this legislation which highlights transparency and accountability in cost sharing for water resource projects.

The foundation to building a project or conducting a feasibility study should always be done in good faith, and with the provisions set forth in Section 1004, local communities and States are now able to see the balance sheets of their respective projects. Furthermore, any unused moneys from a project that comes in under budget will be credited back to the non-Federal sponsor. For States and local communities like mine, who continue to work under tight budgets year after year, this is a big win.

Another provision in the bill that we strongly support is Section 1012, Extended Community Assistance to Disadvantaged Communities. Properly identifying and understanding the disadvantaged community greatly improves efforts to engage with those community members.

In closing, let me say the U.S. Army Corps of Engineers is a valued partner in managing States' waters and beaches through navigation, environmental restoration, flood control, and other projects. Without this legislation, the partnership that so many of us count on around the country as vital to our economic growth will be stymied.

And as for ports, I would remind us all of these things: 23 million American jobs are supported by U.S. seaports; \$6 billion of goods are handled through seaports each and every workday; \$312 billion a year in tax revenue is generated by port activity; and \$4.6 trillion of economic activity is related to our seaports annually. Very clearly, our ports are a central part of our country's economic future.

Thank you again for having me today. I look forward to any questions you might have.

[The prepared statement of Mr. Bullock follows:]



The Honorable Jeffrey W. Bullock
Secretary of State
Delaware Department of State

Jeffrey W. Bullock was sworn in as Delaware's 80th Secretary of State on January 21, 2009 and re-confirmed by the Delaware Senate on January 18, 2017. As Secretary of the most diverse department in state government, he oversees nearly twenty different agencies including Corporations, Historical and Cultural Affairs, Arts, Libraries, Veterans Affairs, Professional Regulation, and Human Relations. In addition, Secretary Bullock has a number of constitutional responsibilities, including serving

on the Board of Pardons.

Secretary Bullock has dedicated most of his professional career to public service. He shares Governor John Carney's strong commitment to providing outstanding customer service and making state government work better for the people it serves. In more than eight years as Secretary of State, he has been a transformational leader in advancing priorities in the areas of education, job creation and more efficient and effective government.

Under Secretary Bullock's direction, the Department of State continues to raise significant revenue for the State of Delaware. Through agencies such as the Division of Corporations and the State Bank Commissioner, the Department contributed more than \$1.26 billion to the state's General Fund in Fiscal Year 2016.

Secretary Bullock has focused on maintaining Delaware's preeminence as the "Corporate Capital of the World" by seeking to protect the state's General Corporation Law. For over a century, Delaware's General Corporation Law has served as a model for other states. With a hands-on approach, Secretary Bullock has led a coordinated effort to prevent passage of federal legislation that would jeopardize Delaware's unique position in corporate governance.

During his tenure, Secretary Bullock also brought the International Trade and Development Group (ITG) under the umbrella of the Department of State, leveraging Delaware's corporate law reputation to pursue economic development opportunities around the world.

Secretary Bullock has a wide range of executive public sector experience, including prominent roles in leading Delaware's two largest governments. From 1994-2001, he served as the chief of staff to Governor Thomas R. Carper. More recently, Bullock was the Chief Administrative Officer for New Castle County, Delaware's largest county.

Secretary Bullock is a native Delawarean who grew up in Claymont and holds a degree from the University of Delaware in Economics and Political Science. He lives in Wilmington with his wife, Susan Frank, and their two daughters, Kate and Caroline.

Testimony
The Honorable Jeff Bullock
Secretary of State of Delaware
Chairman of the Diamond State Port Corporation
Before the
U.S. Senate Environmental and Public Works Committee
Wednesday, May 9, 2018

Chairman Barrasso, Ranking Member Carper, and Members of the Committee, thank you for the opportunity to testify before you and provide remarks on "America's Water Infrastructure Act of 2018" and the importance this bill has on the nation, the northeast region and Delaware.

I am Jeff Bullock, Secretary of State of Delaware and the Chairman of the Diamond State Port Corporation (DSPC). Diamond State Port Corporation, a corporate entity of the State of Delaware, was established in 1923 and owns and operates the Port of Wilmington.

The existing Port is an aging Port that has experienced significant changes over the last 90 years. Delaware's legislature established the DSPC with the power to conduct its own business affairs. In 1995, the DSPC purchased the Port from the City of Wilmington, partly to help provide funding streams to keep the Port operating in an increasingly competitive environment.

The Port, situated on 308 acres of land at the confluence of the Christina and Delaware Rivers, is the first major port cargo vessels encounter on the Delaware River. The Port is situated within a Foreign Trade Zone and includes seven ship berths for general cargo, one petroleum berth, one floating berth for bulk juice and one multipurpose Autoberth; 800,000 sf. cold storage in 6 warehouses, one of the largest in US; and 250,000 sf. dry warehouse with covered rail service.

The Port of Wilmington is a full-service deep-water port and marine terminal handling about 400 vessels annually with an annual import/export cargo tonnage of more than 6 million tons. Today, Delaware's port is the busiest terminal on the Delaware River.

Cargo handling equipment includes: a 100-ton mobile harbor crane and four multi-purpose gantry cranes. All cranes are capable of high speed container operations and the handling of breakbulk, bulk and heavy lift cargoes.

Dry storage facilities include: nearly 33 acres of open space used for RoRo, containers, steel, wind energy components, and lumber as well as 250,000 sf of dry warehouse space.

Temperature controlled facilities include: 6 separate warehouses aggregating approximately 800,000 sf of chilled and freezer storage space. This makes Wilmington one of the nation's largest dock side cold storage facilities.

Currently, we are in the process of a planned expansion at the Port of Wilmington to provide more storage capacity for existing and future commercial businesses, which is why the America's Water Infrastructure Act of 2018 is such an important piece of legislation for Delaware, but I would expand that by saying it is important for the nation as a whole.

Maintaining maritime infrastructure - such as public ports is essential to the nation's economic future. Delaware and the Corp of Engineers have a good working relationship and recently hosted Assistant Secretary of the Army RD James to show him first hand the plans for the Port expansion. The relationship between the Port of Wilmington and the US Army Corps of Engineers is vital to the success of the expansion. I would be remiss, however, if I did not say that they have always been a terrific partner prior to the expansion.

The Corps of Engineers is critical to our region supporting ports in New York, New Jersey, Philadelphia, and Baltimore in addition to Delaware. These ports are economic drivers for our regions and ensuring these ports are modernized and well maintained are critical to our ability to deliver the goods that our region and the nation need, as well as helping U.S. companies export to world markets. The Corps' work also supports the many private terminals including the chemical and oil terminals on the Delaware River that both import and export this vital cargo. These ports also provide important jobs for the region.

The cargo at these ports are diversified, some handling fruits and vegetables, vehicles, wind energy components and steel like Wilmington, with others focusing on general cargo, bulk and break-bulk cargo. This diversity is important to serve the variety of cargo needed for both imports and exports. Water transportation continues to be the most cost effective and environmentally clean mode of transportation. By having a diversity of ports, we can have cargo closer to distribution centers and make sure our roads are not jammed with cargo coming from only one port and then transported to and from our region. As a top agricultural and farming state, Delaware farmers also rely on ports to help them be successful.

We are in the midst of a rapidly changing global marketplace and ensuring the Corps is running efficiently is critical. Ports are strong partners with the Corps of Engineers to ensure we can meet the trading needs of our country and keep the flow of commerce going.

WRDA is an opportunity to look at process improvements as well as make transformational changes in how our nation provides resources to our seaports. Our regional ports also work closely with the American Association of Port Authorities (AAPA) and support the recommended changes in Corps processes that will make navigational projects move more efficiently and support a stronger partnership. We hope you will give these recommendations due consideration in this bill.

This includes the recent industry agreement to support guaranteed use of annual Harbor Maintenance Tax (HMT) revenues to establish a sustainable funding sources for harbor maintenance. As you know, the federal government imposes the HMT to maintain our system of ports and this year's WRDA is an opportunity to fix a broken system by guaranteeing full use of annual HMT revenues, ensuring tax fairness and resulting in the long-term sustainability of our nation's harbor maintenance needs. Enacting this solution will help not only the ports in our region, but ports throughout the U.S. Enacting a long-term funding solution for port maintenance is good for ports, and good for the nation. Having just completed an historic deepening project for the Delaware River, it is critical that we have adequate resources to maintain it in the future.

The amount of freight moved in the United States is projected to grow beyond expectations by the year 2045. It has been estimated that by the year 2037, the U.S. will export more than 52 million shipping containers through U.S. seaports each year. If the infrastructure of our ports and the Army Corps of Engineers is not prepared and adequately funded we will fail to be prepared for the growing demand of the safe and efficient movement of freight.

Before closing, I would like to applaud the Chairman and Ranking Member on the provision included in this legislation which highlights transparency and accountability in cost sharing for water resource projects. The foundation to building a project or conducting a feasibility study should always be done in good faith, with the provisions set forth in Sec 1004, local communities and states are now able to see the balance sheets of their respective projects. Furthermore, any unused monies from a project that comes in under budget will be credited back to the non-Federal sponsor. For states and local communities who continue to work under tight budgets year after year, this is a win.

Another provision in the bill we would like to compliment the committee on is Sec 1012, extended community assistance to disadvantaged communities. Properly identifying

and understanding a disadvantaged community greatly improves efforts to engage with community members. Engagement requires the investment of both time and money. This provision will lessen the burden of matching the cost sharing by allowing the Secretary the ability to reduce the minimum non-Federal cost sharing requirement of 45 percent as well as not imposing a requirement on a project serving in a disadvantaged community, should that be warranted.

The Army Corps of Engineers is a valued partner in managing states waters and beaches through navigation, environmental restoration, flood control and other projects. Without this legislation the partnership that so many across the country sees as vital to their respected economic growth is stymied.

Lastly, I would like to quote some statistics from the American Association of Port Authorities about what's at stake if we don't have a supported & funded US Army Corps of Engineers

- 23M American jobs supported by US seaports
- \$6B value of goods handled by seaports each weekday
- \$312B a year in tax revenue generated by port activity
- \$4.6T value of economic activity related to seaports annually

Thank you, again, for inviting me to testify before you today. I am happy to answer any questions you may have.

Senate Committee on Environment and Public Works
Hearing entitled, "Legislative Hearing on S.2800, America's Water Infrastructure Act of
2018"
May 9, 2018
Questions for the Record for Secretary Bullock

Chairman Barrasso:

1. Secretary Bullock, coastal ports are important to rural communities in Wyoming because many products from our farms and ranches are transported to coastal ports for both national and global distribution. Can you describe some of the impacts to rural and other economies if coastal ports are not maintained at adequate widths and depths?

Answer:

Thank you, Chairman Barrasso.

Each port across the country has characteristics specifically unique to that state or port. For example, the type of cargo delivered or type of containers and products that are handled. Therefore, each port is essential to the overall flow of commerce across the entire country. To maximize the needs of the country – on an economic level – regions depend on easy access to specific ports and efficient operations at those ports. If the ports are not maintained at adequate widths and depths, then the ports role in maintaining the flow of commerce is hindered. The national economy is a shared responsibility between state and federal governments, the ports play a critical role in that responsibility.

Senator BARRASSO. Thanks so much, Mr. Bullock.

Mr. Pratt, welcome to the Committee. We look forward to hearing from you.

**STATEMENT OF TONY PRATT, PRESIDENT,
AMERICAN SHORE AND BEACH PRESERVATION ASSOCIATION**

Mr. PRATT. Good morning. I want to, first of all, start by thanking the Chairman and Ranking Member for the leadership in bringing this bill forward, as well as the Subcommittee leadership in bringing this bill forward. It is very important we keep on a biennial track.

I am the President of the American Shore and Beach Preservation Association, an organization founded in 1926 that is intended to help care for the Nation's coastlines and beaches through science and technology.

We want to start today by saying how happy we are looking at the 5-year budget plan that has been proposed. It is, to me, very reflective of the fact that when earmarks, members' requests, were eliminated a number of years ago from a user standpoint, non-Federal partner user standpoint, many of the transparencies that we enjoyed in that process of having open discussions was lost. We find ourselves in a world of a mystery kind of black box, where the Congress is appropriating funds for Corp of Engineers work, we wait by the sidelines in years of continuing resolution into the mid-spring to find out what work we are going to be seeing coming forward, and we are then, at that time, able to come up with our matching funds and the Corps has to conduct contractual work in a short period of time. The 5-year budget plan opens this process up to a better dialogue and a better vision for the future, and we look forward to working with the Corps and you all with that.

I like the fact of the bill's incorporation of the Integrated Water Resources Management, which is a modernization step that will help improve services delivery to the Nation. Looking to align authorities, improve opportunities for information sharing, and supporting complementary and integrated solutions to water resources challenges among partners and stakeholders is a valuable step forward for the Corps and its partners and project beneficiaries.

The required guidance to ensure that the 5-year budget and work plans take into consideration a full array of Corp business lines to maximize the return on the Federal investment is supported. This helps put natural infrastructure investments on par with gray infrastructure investments.

As I have stated in testimony to this Committee previously, water and coastal infrastructure, just like manmade infrastructure, is about assets that society depends on, and most particularly, it is about U.S. jobs. Creating jobs and protecting jobs that are blue collar jobs, as well as white collar jobs, these are American jobs that cannot be outsourced. Service industry at the coast is alive and well and abundantly serves the Nation's economy. Investment in natural infrastructure through multi-business line investment secures that economic return for generations to come.

Another issue that has been a challenge in the past is how well informed the conversation on Federal water resource investment has been. Our observation has been that the benefit-cost analysis

has not well served that purpose; it does not consider the return of Federal investment very well at all. Whereas, the total cost of projects are accounted for, there are many national benefits that are not included. This is a disservice to the Nation, we believe.

We strongly advocate for a more informed BC process that informs appropriators on the full return of national benefits on the investment made. The 5-year budget plan and the integrated water resources approach are a major step forward in realizing this goal. We again thank you for your inclusion of these and look forward to future discussions with you on approving the benefits calculations. We are also very happy to see the call for the GAO study that will examine the possible BC calculation reforms. This is a wise course of action and very much needed.

By the fact that the EPW Committee remains committed to a biennial Water Resources Development Act, the Corps' Civil Works budget remains on a forward looking track, and each subsequent WRDA provides opportunity to continue to build improvements and modernization of the Corps' Civil Works mission.

ASBPA is also appreciative of the inclusion of the Great Lakes Coastal Resiliency Study. Combined with the North Atlantic Study, the South Atlantic Study, and Gulf Coast studies that have gone on, we are perching our Nation very much in a better position to have a resilient coastline when future storms occur. This is an objective we strongly support.

Finally, the National Academy's study is endorsed. This study will take a broad view of the way in which the Nation's water resources development projects are delivered. The NAS study should take into consideration how the Administration views the Corps' mission and supports it through budget and policy.

We strongly support an overview of how the Corps currently operates and if there are improvements that could be made to get projects completed as quickly and efficiently as possible, should they be identified and pursued. ASBPA offers our assistance in any way you may find our expertise and experience with coastal water resources protection projects helpful in accomplishing your stated goals.

I want to thank you for the opportunity to talk with you today and look forward to any questions you may have.

[The prepared statement of Mr. Pratt follows:]



Anthony P. Pratt
President
American Shore and Beach Preservation Association

Tony is the current President of the American Shore and Beach Preservation Association. He currently serves on the Advisory Board to the Department of Homeland Security Coastal Resilience Center of Excellence based at UNC, Chapel Hill. Pratt was a member of the National Research Council Committee on Beach Nourishment and Protection, and the Heinz Center Panel on Risk Vulnerability and the True Costs of Coastal Hazards. He served elected office in Lewes, a coastal town in DE, four years of which were as Deputy Mayor. He worked for the Shoreline and Waterway Management section of Delaware's Department of Natural Resources and Environmental Control for the last 37 years.

Despite the demands of his day job, you're likely to find Pratt crouched along the waterline or in a mucky marsh near one Delaware's beaches working as a nature photographer during his off hours. He is an accomplished professional photographer, and in 2014 Pratt captured a rarely seen phenomenon called the green flash, which comes off the top of a rising or setting sun and is visible only for a fraction of a second under the perfect atmospheric conditions.

Testimony of Anthony Pratt
American Shore and Beach Preservation Association (ASBPA)
To the Senate Committee on Environment and Public Works
On America's Water Infrastructure Act of 2018

May 9, 2018

I am Anthony Pratt representing the American Shore and Beach Preservation Association (ASBPA) for which I serve as President. ASBPA, founded in 1926, is a 501(c)3 nonprofit organization that advocates for healthy coastlines by promoting the integration of science, policies and actions that maintain, protect and enhance the coasts of America. From its formation, ASBPA has worked with Congress to help pass significant legislation that helps define and refine the strong, necessary role the federal government plays in the management and preservation of our nation's shorelines.

I want to thank Chairman Barrasso and Ranking Member Carper for their strong leadership in bringing this bill forward. It is encouraging to see Congress working so well across the aisle to address the Nation's water resources infrastructure challenges.

ASBPA is very pleased with the 5 year budget plan. When Member's Requests (earmarks) were eliminated transparency in the budget for water resources was lost. As a non-federal sponsor of Corps projects for many years it was a great benefit for me to know what was proposed in the Corps annual appropriation as the budget discussions went through Congress. The current process is a 'black box' in that Congress appropriates Corps funding and the Administration determines where projects will be done through the work plan without specific discussions on specific projects between Members and the Administration. As a local sponsor, in the world of Continuing Resolution budgets, it was extremely difficult to wait until mid-federal fiscal year to learn what projects are included in the work plan and to supply the required cost share funding on very short notice. It is likewise difficult for the Corps to follow a rigorous bidding process in such a short time frame. With a 5 year outlook for planned work greater efficiency and better partnering will occur. Projects can be better prepared for and non-federal sponsors will be better perched to have match funds available.

The Bill's incorporation of Integrated Water Resources Management is a modernization step that will improve service delivery to the Nation. Looking to align authorities, improve opportunities for information sharing, and supporting complementary and integrated solutions to water resources challenges among partners and stakeholders is a valuable step forward for both the Corps, its partners and project beneficiaries.

The required guidance to ensure that the 5 year budget and work plans take into consideration a full array of Corps' business lines to maximize the return on the federal investment is supported. This helps put natural infrastructure investments on par with gray infrastructure investments. As discussions continue this year on how to best address the Nation's infrastructure needs, the benefits to the nation

of maintaining natural infrastructure, particularly on the coast, are vital to include. Well managed and maintained beaches, dunes and wetlands are the first line of defense against storm waves and tidal surge. As I have stated in testimony to this committee previously, infrastructure refers to the structures, systems, and facilities serving the economy of an industry, country, or area, including the services and facilities necessary for its economy to function. Water and coastal infrastructure, just like man-made infrastructure, is about assets that society depends on – and, most particularly, it is about U.S. jobs. Creating jobs and protecting jobs, blue collar jobs and white collar jobs, American jobs that cannot be outsourced. Service industry at the coast is alive and well and abundantly serves the nation's economy. Investment in natural infrastructure through multi-business line investment secures that economic return for generations to come.

Another issue that has been a challenge in the past is how well informed the conversation on federal water resources investment has been. Our observation is that the benefit/cost analysis has not served the consideration of the return of federal investment at all well. Where the total costs of projects are accounted for there are many National benefits that are not included. This is a disservice to the Nation. We strongly advocate for a more informed b/c process that informs appropriators on the full return of National benefits on the investment made. The 5 year budget plan and the integrated water resources approach are a major step forward in the realization of this goal. We again thank you for the inclusion of these and look forward to future discussions with you on improving the benefits calculations. We are also very happy to see the call for the GAO study to examine possible BC calculation reforms. This is a wise course of action and very much needed.

By the fact that the EPW Committee remains committed to a biennial Water Resources Development Act the Corps' Civil Works budget remains on a forward looking tack and each subsequent WRDA provides opportunity to continue to build improvements and modernization of the Corps' Civil Works mission. The Corps strives to deliver service and projects to the Nation and depends on biennial WRDA's to address policy and procedures to improve delivery services and authorizations for needed work.

ASBPA is also appreciative of the inclusion of the Great Lakes Coastal Resiliency Study. Combined with the North Atlantic Coast Comprehensive Study, the South Atlantic Coast Comprehensive Study, and coastal Louisiana and Texas studies much of the continental U.S coast will have comprehensive resiliency plans in place. This is an objective we strongly support.

The National Academy's study is endorsed. This study will take a broad view of the way in which the Nation's water resources development projects are delivered. ASBPA supports a fresh look at how the Corps functions and an examination of its structure with regard to how it can optimize efficiency, coordination, transparency and cost savings. We look forward in helping in any way possible in promoting and carrying out this National Academy study.

We add the thought that the NAS study take into consideration how the Administration views the Corps' mission and supports it through budget and policy. We strongly support an overview of how the Corps currently operates and if there are improvements that can be made to get projects completed as quickly and efficiently as possible they should be identified and pursued. ASBPA offers our assistance in any way you may find our expertise and experience with coastal water resources protection projects helpful in accomplishing your stated goals.

Senator BARRASSO. Well, thank you so much, Mr. Pratt. Thanks to all of you for your testimony.

We have a diverse group of stakeholders who have already provided letters and statements of support for America's Water Infrastructure Act of 2018. They include the Family Farm Alliance, the U.S. Conference of Mayors, the National League of Cities, the National Association of Counties, the American Society of Civil Engineers, the National Rural Water Association, the American Water Works Association, the Association of Metropolitan Water Agencies, the National Association of Clean Water Agencies, and the Portland Cement Association.

I ask unanimous consent to submit all of these letters and statements in support of the bipartisan legislation for the record.

Without objection, it is done.

[The referenced information was not received at time of print.]

Senator BARRASSO. Let me start with a question.

Mr. Riley, if I could ask you, please. Developing adequate water supply for future uses in States like Wyoming, Montana, can be difficult because of the regulatory permitting process. We have talked about this. It can also be challenging when the Corps disagrees with a State about the purpose and the need of proposed water storage or to adhere to unexpected permit conditions that come with the permit. These roadblocks often happen later in the permitting process, upending projects after significant time and resources have already been spent by the State.

Can you explain how future economic growth is impacted in States like Wyoming and Montana when adequate water supply storage is blocked by cumbersome Federal red tape, and can you explain how this bill will help address this important issue?

Mr. RILEY. Senator Barrasso, members of the Committee, usually, when these red tape and these processes are blocked, we have already spent millions of dollars of State and private money to get to that stage. It is kind of like running into a roadblock when the Army Corps puts their foot down, because the only option for us at that point is to come back to you gentlemen, and that becomes very difficult when you live a 2-days' flight from Washington, DC.

In the proposal—sorry about the section, I don't remember—about having the Committee or the group set up, it gives us a second chance to lay out our facts, because oftentimes the perspective of the man making the initial decision, this allows us to have people in the room that understand what we are talking about. It gives us a second chance. Not that we will always get there, but if you kill that momentum—I have been in many projects—when you kill it, you kill it, and it is hard to get back. I know of some storage projects we have done in our State that got killed, and they are done.

Senator BARRASSO. Following up, we know that adequate and affordable water supply is critical to farmers and ranchers in Wyoming, Montana. Our reservoirs across the West to Midwest have lost significant water storage capacity due to sediment build up. This legislation we are discussing today increases water supply in existing reservoirs by developing sediment management plans for these reservoirs through the use of partnerships between the Corps and the U.S. Bureau of Reclamation.

If we restore these reservoirs' capacity by removing this excess sediment, what will be the impact for family farmers across the West and Midwest?

Mr. RILEY. Senator Barrasso, members of the Committee, I can address that from a personal note. I actually farmed in the Milk River Valley, which is a Bureau of Rec project, and our upper reservoir is about 65 percent full of silt. That stores half of our water supply. So, if I can put that in real terms, that \$200 hay, which is kind of where we talk, that costs me about \$300, \$350 an acre.

As a young farmer early in my career, it almost took me out of the business. You can't manage on that; you can't bank on that. That is what that storage really means, in a nutshell, to the farmer. It could be his malt barley crop or his beet crop, also.

Senator BARRASSO. Thank you.

Ms. Swallow, this legislation authorizes several Corps projects for construction and encourages expedited completion of several projects that are already underway. Each of these projects serves an important purpose, such as providing for navigation, for flood risk management, for hurricane and storm damage, risk reduction, ecosystem restoration. You have seen the list.

Can you further elaborate on why ongoing and future Corps projects are so critical when it comes to maintaining America's economic viability, including job creation, economic growth, and our global competitiveness?

Ms. SWALLOW. Thank you for that question, Chairman Barrasso. The Corps maintains a network of 25,000 miles of inland waterways, 239 locks, and over 13,000 miles of levees. All of these assets help move our goods out to other parts of the country, as well as our international markets, they protect our communities, and they provide access to clean drinking water and other benefits to our communities.

Unfortunately, we have not been funding the Corps as needed. These facilities are not just decades old, some of them are a century old; and while they were designed with the best information we had at the time, they are no longer meeting their needs, they are beyond their design life, and they weren't designed for the traffic they are seeing today. It is critically important for our economy and for our communities that we continue to invest in the Corps; and not just invest, but increase that investment to really meet their needs.

Senator BARRASSO. Senator Carper.

Thank you all.

Senator CARPER. Mr. Chairman, I am happy to yield to colleagues.

If any of you have time constraints, I am happy to yield. I am not in a hurry to get out.

Senator INHOFE. I am good. I will wait for you. I don't want to miss what you are saying.

[Laughter.]

Senator CARPER. Liar, liar, pants on fire.

[Laughter.]

Senator CARPER. All right; John, do you want to go first?

Senator INHOFE. Whoever doesn't want to hear.

[Laughter.]

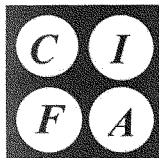
Senator BARRASSO. Well, I have some questions for Mr. Sternberg.

Senator BOOZMAN. Thank you all so much for holding this very important hearing.

Before I get started, I would like to take a second to offer a group of support letters for the SRF WIN Act that we have been talking about and some of you all have mentioned in your testimony. This includes the National Rural Water Association, the Council of Infrastructure Financing Authorities, the American Society of Engineers, the Associated General Contractors of America, the American Council of Engineering Companies, the National Association of Clean Water Agencies, Ducks Unlimited, the American Public Works Association, the Rural Community Assistance Partnership, the Water Systems Council, the International Union of Operating Engineers, the Vinyl Institute, the Hydraulic Institute, California Association of Sanitation Agencies, Orange County Water District.

I would also like to take a second and thank the EPA Office of Water, the Council of Infrastructure Financing Authorities, American Water Works Association, Water Environment Federation, and the Association of Metropolitan Water Agencies for providing us technical assistance to ensure that we preserve the WIFIA and SRF programs for years to come.

[The referenced information follows:]



**Council of
Infrastructure
Financing
Authorities**

President
Jeff Freeman
Minnesota

Vice President
Terry Deputy
Delaware

Treasurer
Kristin Bettridge
Washington

Secretary
Kim Colson
North Carolina

Executive Director
Rick Farrell

Suite 201
316 Pennsylvania
Avenue, S.E.
Washington, DC 20003

Tel: (202) 547-7886
Fax: (202) 547-1867

November 28, 2017

The Honorable John Boozman
United States Senate
SH-141 Hart Senate Office Building
Washington, D.C. 20510

RE: Strong Support for SRF WIN Act

Dear Senator Boozman:

I am writing on behalf of the membership of the Council of Infrastructure Financing Authorities (CIFA) to indicate our support for your legislation, the "Securing Required Funding for Water Infrastructure Now Act" which proposes an important new source of funding for State Revolving Fund programs that will enable states to expand assistance to communities to build and improve water infrastructure.

CIFA is the national organization of State programs that manage the Clean Water State Revolving Funds and the Drinking Water State Revolving Funds. State SRF managers work with local communities to provide financing of critical projects to assure safe and clean water for our citizens. The SRF programs have a remarkable record of success in improving water quality but there remains an urgent need to continue and build on that investment if progress is to continue. The "SRF WIN Act" will allow state to access additional needed financing to assist more communities to meet their water infrastructure needs.

We believe the SRF programs remain the most effective means of providing municipalities the necessary support to build and improve water systems. We are heartened that your legislation recognizes the primary role of the SRFs in addressing this nation's water infrastructure challenges. We are most appreciative of your leadership in this regard.

We look forward to progress on your proposal and stand ready to assist in any way we can to advance that effort.

Sincerely,

Jeff Freeman
President



International Union of Operating Engineers

AFFILIATED WITH THE AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

November 1, 2017

JAMES T. CALLAHAN
GENERAL PRESIDENT

BRIAN E. HICKEY
GENERAL SECRETARY-TREASURER

REGIONAL PRESIDENTS

JERRY KALMAR

RUSSELL E. BURNS

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ROBERT T. HEENAN

DANIEL J. MCGRAW

DAREN KONOPASKI

MICHAEL GALLAGHER

GREG LALYNE

FERRANCE E. MCGOWAN

MARK MAHRLE

RANDY GRIFFIN

DOUGLAS W. STOCKWELL

RONALD J. SIKORSKI

JAMES T. KUNZ, JR.

TRUSTEES

KURA J. BROWN

CHARTER

JOSEPH SHANAHAN

EDWARD J. CURLY

WILLIAM LYNN

BRIAN COCHRANE

GENERAL COUNSEL

BRIAN POWERS

The Honorable John Boozman
United States Senate
141 Hart Senate Office Building
Washington, DC 20510

Dear Chairman Boozman:

The International Union of Operating Engineers deeply appreciates your leadership in developing water-infrastructure legislation, and we are pleased to support the Securing Required Funding for Water Infrastructure Now Act (SRF WIN Act).

The International Union of Operating Engineers (IUOE) represents nearly 400,000 members in over 120 local unions across the U.S. and Canada, including members who operate and maintain heavy equipment in the construction sector. In fact, every day thousands of Operating Engineers are building the nation's water and wastewater systems, locks, dams, and levees, as well as dredging ports, harbors, and inland waterways.

The IUOE is grateful for your outreach to key water-infrastructure constituencies early in the process of crafting your legislation, allowing valuable input along the way and ultimately building coalition support for the legislation. We are pleased to join our partners in the Water Infrastructure Network as early endorsers of the SRF WIN Act.

The need for water investments is well documented. Democrats and Republicans – particularly the leaders of the Environment and Public Works Committee – have jointly identified the problem and worked successfully over the years to craft bipartisan solutions to address those needs. Our Water Infrastructure Network partner, the American Society of Civil Engineers, in its annual report card gave water infrastructure a near-failing grade.

The SRF WIN Act is designed to build upon the existing, effective programs in current law: the State Revolving Funds and the relatively new program, the Water Infrastructure Finance Innovation Act (WIFIA). The State Revolving Funds have successfully delivered water infrastructure funding to communities of all sizes for a generation. Combining the program delivery of the SRFs with the leveraging capability established through WIFIA could bring out the best in both programs, enhancing their efficiency, reach, and accountability, putting project review in the hands of the agencies that have capacity and expertise in conducting due diligence on water systems.



1125 SEVENTEENTH STREET, NW • WASHINGTON, DC 20036-4707 • 202-429-9100 • WWW.IUOE.ORG

The Securing Required Funding for Water Infrastructure Now Act includes:

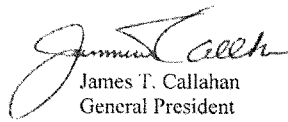
- A minimum of \$50 billion in *new funds* for the existing State Revolving Funds
- The reduction of significant application fees for State Finance Authorities
- Project eligibility for all projects on the “Intended Use Plans”
- An expedited review process for State Financing Authorities
- Provisions to ensure that this new program does NOT undermine existing SRF and WIFIA programs
- The removal of WIFIA as a “Pilot” program
- Equal consideration of water and wastewater projects

The Office of Management and Budget estimated that a \$1 billion appropriation would support \$65 billion in direct loans to the State Finance Authorities administering the revolving funds. The State Finance Authorities would use these new direct loans to finance the thousands of already vetted water and wastewater infrastructure projects contained within their existing Intended Use Plans. Providing State Finance Authorities with these WIFIA loans is the most effective and efficient means for the federal government to support water and wastewater construction projects in communities across the nation. Your legislation could not come at a more critical time for these communities.

Despite a gradual improvement in the state of the construction economy over the last decade, the water and sewer system segment of the construction sector is still down about 10% from its pre-recession level. The construction unemployment rate is still one of the highest of any sector in the economy. Thousands of Operating Engineers and other craftworkers are trained and ready to work.

The International Union of Operating Engineers supports the Securing Required Funding for Water Infrastructure Now Act, and looks forward to working with you to enact it into law within the year. Thank you again for your leadership.

Sincerely,



James T. Callahan
General President

ART DANIEL, President
 EDDIE STEWART, Senior Vice President
 DIRK ELSPERMAN, Vice President
 MICHAEL MORRAND, Treasurer
 STEPHEN E. SANDHERR, Chief Executive Officer
 DAVID LUKENS, Chief Operating Officer



October 31, 2017

Senator John Boozman
 Chairman
 Senate Environment & Public Works Fisheries, Water and Wildlife Subcommittee
 141 Hart Office Building
 Washington, DC 20510

Dear Chairman Boozman,

On behalf of the Associated General Contractors of America (AGC), I wanted to share our strong support for the Securing Required Funding for Water Infrastructure Now Act – SRF WIN Act. Your legislation will provide significant and much-needed improvements to our nation's rural and urban water infrastructure with over \$50 billion available to states to address their respective needs. We encourage all Senators to cosponsor this important and timely legislation.

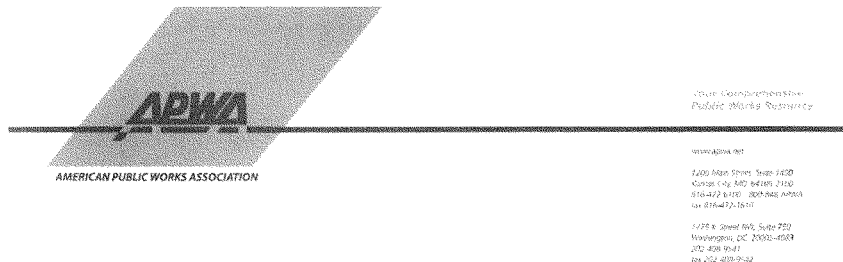
The SRF-WIN Act is a fiscally responsible and innovative concept that utilizes the significant leveraging of the Federal infrastructure funding through the Water Infrastructure Finance Innovation Act (WIFIA) program to finance Clean Water and Safe Drinking Water State Revolving Funds (SRFs). Based on the Office of Management and Budget (OMB) Subsidy Ratio the \$200 million appropriation authorized in the SRF WIN Act would support \$13 billion in direct loans for to State Finance Authorities to finance thousands of much-needed water and wastewater construction projects in communities throughout the country.

AGC has long advocated for increased funding for Clean Water and Safe Drinking Water SRF's and we are encouraged that the SRF WIN Act ensures that SRF grant funding must be preserved by including a provision that requires Congress fully appropriate SRF grant dollars at 2017 levels or higher before funding for this program be made available. This provision will ensure that WIFIA funding will be supplemental to the current Clean Water and Safe Drinking Water SRF grants.

Again, AGC fully supports the SRF WIN Act's significant and fiscally responsible investments in our nation's water infrastructure and we urge all members of the Senate to co-sponsor and support passage of this important legislation.

Sincerely,

Jeffrey D. Shoaf
 Senior Executive Director, Government Affairs



October 27, 2017

The Honorable John Boozman
141 Hart Senate Office Building
Washington, DC 20010

Dear Senator Boozman:

On behalf of the American Public Works Association (APWA) and our more than 30,000 members, I am writing to thank you for your work on the Securing Required Funds for Water Infrastructure Now (SRF WIN) Act of 2017. This significant legislation will help communities across our nation maintain and enhance their drinking water infrastructure by providing much needed financial support.

Providing over \$50 billion over five years in leveraged funding, directly to states, allows those on the ground in our nation's communities to finance essential water infrastructure projects. By applying the leveraging component of the Water Infrastructure Finance Innovation Act (WIFIA) program directly to the state-administered State Revolving Fund (SRF) programs, you have combined the best elements of both programs. Additionally, by providing funding directly to state financing authorities, as prescribed in WIFIA, you have streamlined the application process, allowing states to bundle projects from their intended use plan into one application. Finally, we applaud your efforts in preserving continued federal funding for the SRF Capitalization Grant program, ensuring that funding levels for that program will not decrease.

Each day public works professionals are diligently working to protect and maintain the critical infrastructure that is so essential to protecting our health and quality of life. Because of our shared commitment, APWA looks forward to continuing to work with you and your staff on this legislation to help public works professionals meet our water infrastructure challenges.

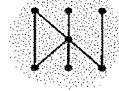
Sincerely,

William B. (Bo) Mills, Jr., PWLF
President

RECEIVED
OCTOBER 27 2017 10:00 AM

EXECUTIVE DIRECTOR
Scott D. Carver

WATER INFRASTRUCTURE NETWORK



October 16, 2017

Senator John Boozman
 Chairman,
 Fisheries, Water and Wildlife Subcommittee
 141 Hart Senate Office Building
 Washington, DC 20510

Re: SRF WIN Act – The Water Infrastructure Network’s Strong Support

Dear Chairman Boozman,

The Water Infrastructure Network (WIN), a coalition of the nation’s leading construction, engineering, municipal, conservation, public works, labor and manufacturing organizations, strongly supports the Securing Required Funding for Water Infrastructure Now Act - the SRF WIN Act - and encourages all United States Senators to cosponsor this timely legislation. The United States is facing a water infrastructure funding crisis as documented in recent reports by CBO, EPA and WIN and underscored by recent commitments by Congress and the Trump Administration to provide full funding of the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) State Revolving Funds (SRFs). The SRF WIN Act is a fiscally responsible approach to provide States with over \$50 B during the next five years for significant improvements to our nation’s rural and urban water infrastructure.

The SRF WIN Act utilizes the significant leveraging of Federal infrastructure funding established through the Water Infrastructure Finance Innovation Act (WIFIA) Program – PL 113-121 - to finance the existing Clean Water Act and Safe Drinking Water Act State Revolving Funds (CWA and SDWA SRFs). In the 2017 Budget Request, OMB estimated the Subsidy Ratio (anticipated riskiness of the future loan portfolio) for WIFIA appropriated funds at 1:65. Under this Subsidy Rate a \$200 M annual appropriation would support \$13 B in direct loans to the State Finance Authorities administering the CWA and SDWA SRFs. The State Finance Authorities would utilize these new direct loans to finance the thousands of existing and vetted water and wastewater infrastructure projects on their existing Intended Use Plans. Providing State Finance Authorities WIFIA Loans is the most effective and efficient means for the Federal government to support water and wastewater construction projects across the nation.

State Finance Authorities have been successfully financing wastewater infrastructure projects through the CWA SRF for the past 30 years and drinking water infrastructure through

the SDWA SRF for the past 20 years. State Finance Authorities have solicited and assessed thousands of water infrastructure project proposals submitted by large and small communities in every state and Congressional District. The States currently have thousands of vetted water infrastructure projects awaiting SRF funding.

State Finance Authorities, are in a position to combine new WIFIA leveraged funding with existing SRF Funds to expeditiously finance thousands of existing and vetted water infrastructure projects. Under current law, State Finance Authorities are eligible recipients of WIFIA Funding and are able to bundle existing vetted, water and wastewater projects into a single WIFIA loan proposal. On July 19, 2017, EPA “approved” a \$436 M WIFIA Loan to the Indiana Finance Authority that will be combined with \$454 M in State SRF Funding to construct \$890 M in drinking water and wastewater projects across Indiana. The objective of the SRF WIN Act is to expand the utilization of this innovative water infrastructure financing tool to all states.

The SRF WIN Act advances significant, fiscally responsible, investments in our nation’s water infrastructure and the Water Infrastructure Network urges all Members of the United States Senate to co-sponsor and support the passage of this landmark legislation.

Sincerely,

The WIN Executive Committee

American Council of Engineering Companies (ACEC)
American Public Works Association (APWA)
American Society of Civil Engineers (ASCE)
Associated General Contractors of America (AGCA)
International Union of Operating Engineers (IUOE)
Laborers International Union of North America (LIUNA)
National Association Clean Water Agencies (NACWA)
National Rural Water Association (NRWA)
United Association of Plumbers and Pipefitters (The United)
Vinyl Institute (VI)



October 18, 2017

The Honorable Sheldon Whitehouse
U.S. Senator
530 Hart Senate Office Building
Washington, DC 20510

Re: Taco, Inc. supports the SRF WIN Act

Dear Senator Whitehouse:

On behalf of our over 400 employees throughout Rhode Island, Taco is pleased to offer our support for the Securing Required Funding for Water Infrastructure Now (SRF WIN) Act. The SRF WIN Act is being championed by Senator John Boozman, a fellow member and chairman of the Fisheries, Water and Wildlife Subcommittee. We ask you to give Senator Boozman and the Act your full support as it progresses through congress.

The SRF WIN Act has the potential to provide over \$50 billion during the next five years for improvements to America's water infrastructure.

Grants to states through the EPA State Revolving Fund programs have been the backbone of federal support for local water infrastructure projects for decades. Yet despite billions of dollars in federal funding through the grant program, America's water infrastructure continues to have incredible unmet needs.

So while we remain firmly behind the grants, we believe that the innovative loan program in SRF WIN, which has already proven its potential through a pilot program, is critical to strengthening our water infrastructure. Providing State Finance Authorities increased funding is an efficient and sensible approach for the Federal government to support water and wastewater infrastructure projects across the nation.

The SRF WIN Act could create and support thousands of manufacturing jobs over the next five years. Conservative estimates project 23,000 construction, engineering and manufacturing jobs are created for every billion dollars of investment in water infrastructure.

Taco provides a diverse range of high-efficient pumps, tanks, controls and components which are used throughout the U.S. water collection and distribution infrastructure.

Thank you for your commitment to rebuilding's America's water infrastructure.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark Chaffee".

Mark Chaffee
Vice President, Governmental Relations & Sustainability

CC: Mr. Josh Karetny



One Waterfowl Way
 Memphis, TN 38120-2351
 (901) 758-3825 fax (901) 758-3850
 www.ducks.org

President
 Rogers S. Hoyt, Jr.
 Uvalde, Texas

October 16, 2017

Chairman of the Board
 Paul R. Bonderson, Jr.
 Sunol, California

Senator John Boozman
 Chairman

Chief Executive Officer
 H. Dale Hall
 Memphis, Tennessee

Fisheries, Water and Wildlife Subcommittee
 141 Hart Senate Office Building
 Washington, DC 20510

Chairman Boozman:

I write today in support of your efforts to increase the investment in clean water infrastructure through the introduction of the bipartisan Securing Required Funding for Water Infrastructure Now Act - the SRF WIN Act.

Ducks Unlimited (DU) is the world's largest nonprofit organization dedicated to conserving North America's waterfowl habitats. Established in 1937 by a group of concerned waterfowl hunters, Ducks Unlimited has conserved more than 14 million acres thanks to contributions from more than a million supporters across the continent. Guided by science and dedicated to program efficiency, DU works toward the vision of wetlands sufficient to fill the skies with waterfowl today, tomorrow and forever.

The SRF WIN Act will utilize leveraged federal infrastructure funding established through the Water Infrastructure Finance Innovation Act (WIFIA) Program – PL 113-121 - to finance the existing Clean Water Act and Safe Drinking Water Act State Revolving Funds (CWA and SDWA SRFs), which has the potential to provide significant funding to our nation's clean water infrastructure. In turn, these investments will improve habitat for ducks, fish and other wildlife and further boost the resiliency of sportsmen and women for generations to come.

Thank you for introducing this bipartisan legislation. I look forward to working with you to advance the SRF WIN Act.

Sincerely,

A handwritten signature in dark ink, appearing to read "H. Dale Hall".

H. Dale Hall
 Chief Executive Officer

Rescue Our Wetlands
 Banding Together for Waterfowl



October 13, 2017

The Honorable John Boozman
U.S. Senator
141 Hart Senate Office Building
Washington, DC 20510

Re: ABB supports the SRF WIN Act

Dear Senator Boozman:

On behalf of our over 2,600 employees throughout Arkansas in our Baldor motor business, ABB is pleased to offer our support for the Securing Required Funding for Water Infrastructure Now (SRF WIN) Act.

The SRF WIN Act has the potential to provide over \$50 billion during the next five years for improvements to America's water infrastructure.

Grants to states through the EPA State Revolving Fund programs have been the backbone of federal support for local water infrastructure projects for decades. Yet despite billions of dollars in federal funding through the grant program, America's water infrastructure continues to have incredible unmet needs.

So while we remain firmly behind the grants, we believe that the innovative loan program in SRF WIN, which has already proven its potential through a pilot program, is critical to strengthening our water infrastructure.

The SRF WIN Act could create and support thousands of manufacturing jobs over the next five years. Conservative estimates project 23,000 construction, engineering and manufacturing jobs are created for every billion dollars of investment in water infrastructure.

ABB provides a diverse range of technologies for water infrastructure, from power generation to distribution automation to measurement and analytics. Of course, ABB Baldor motors, manufactured in Fort Smith and supported by our operations in Clarksville, Jonesboro and Ozark are essential to pumping operations associated with water treatment, distribution and collection.

Thank you for your commitment to rebuilding America's water infrastructure.

Respectfully,

A handwritten signature in black ink, appearing to read 'Jim Creevy'.

Jim Creevy
Vice President
Government Relations



Danfoss
1 Scroll Drive
Arkadelphia, AR 71923
phone: 870-246-0898
Fax: 410-931-8256
www.danfoss.us

Date: October 12, 2017

Senator John Boozman
Chairman, Fisheries, Water and Wildlife Subcommittee
141 Hart Senate Office Building
Washington, DC 20510

Re: Danfoss' Support for The SRF WIN Act

Dear Chairman Boozman,

Danfoss is a global manufacturer of controls, compressors, heat exchangers, sensors, valves and variable frequency drives used in the water/wastewater sector. Danfoss has fifteen facilities employing over 3000 people in the US to support our \$1 billion business here, much of it to original equipment manufacturers. Our Arkadelphia, Arkansas facility has approximately 200 employees.

Danfoss appreciates your continued leadership to significantly increase funding for America's water infrastructure and strongly supports the Securing Required Funding for Water Infrastructure Now Act - the SRF WIN Act.

We ask you to co-sponsor and support the passage of this important legislation. The SRF WIN Act has the potential to create and support thousands of manufacturing jobs over the next five years. Conservative estimates project 23,000 construction, engineering and manufacturing jobs are created for every billion dollars of investment in water infrastructure. Through proven leveraging of federal water infrastructure dollars - the SRF WIN Act has the potential to provide over \$50 Billion during the next five years for improvements to America's water infrastructure.

The SRF WIN Act combines the proven delivery capacity of the CWA and SDWA State Revolving Funds with the significant leveraging of Federal infrastructure funding established through the Water Infrastructure Finance Innovation Act (WIFIA) Program - PL 113-121. In the 2017 Budget, OMB estimated the Subsidy Ratio for WIFIA appropriated funds at 1:65. Under this Subsidy Rate a \$200 M annual Appropriation would support \$13 B in direct loans to the State Finance Authorities administering the CWA and SDWA SRFs. Providing State Finance Authorities increased funding is an efficient and sensible approach for the Federal government to support water and wastewater infrastructure projects across the nation.



The SRF WIN Act removes barriers to State Finance Authority participation in WIFIA by eliminating upfront application fees. The SRF WIN Act provides for expedited EPA consideration of WIFIA applications submitted by State Finance Authorities. Finally, the SRF WIN Act provides for State Finance Authorities to receive low interest loans - at or below the Treasury Rate.

The SRF WIN Act provides for fiscally responsible investments in our nation's critical water infrastructure that will improve US Competitiveness in the long-term and support US Manufacturing jobs in the near-term. Again, we hope that you will co-sponsor and support this important legislation.

Sincerely,

Karl Lobry
Director of Operations



October 12, 2017

The Honorable John Boozman
United States Senate
Washington, DC 20510

Dear Senator Boozman,

On behalf of the Rural Community Assistance Partnership (RCAP), I would like to express our support for the "Securing Required Funding for Water Infrastructure Now (SRF WIN) Act of 2017" legislation.

RCAP is a national network of six regional non-profit organizations working to ensure that rural and small communities throughout the country have access to safe drinking water and sanitary wastewater disposal. The RCAP Network provides a variety of programs to accomplish this goal, including direct training and on the ground technical assistance.

RCAP appreciates that this legislation amends the Water Infrastructure Finance and Innovation Act (WIFIA) to allow State infrastructure financing authorities to receive additional resources to support both the Drinking Water and Clean Water State Revolving Funds (SRFs), which are critical to funding water projects in all communities across the United States.

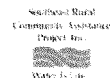
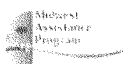
We look forward to working with you to advance this legislation that will help small communities access additional WIFIA and SRF funding for much-needed water and wastewater infrastructure upgrades integral to economic growth in rural America.

In closing, we appreciate your ongoing commitment to addressing rural America's substantial water infrastructure needs. This legislation is integral to achieving long-term viability of rural communities and water/wastewater systems throughout the United States, while ensuring that all Americans have access to clean, safe, and affordable drinking water. We stand ready to work with you and your Senate colleagues to ensure this legislation is passed.

Sincerely,

Nathan Ohle
Executive Director
Rural Community Assistance Partnership (RCAP)

COMMUNITIES
Unlimited





101 Constitution Avenue, NW, Suite 375 East
Washington, DC 20004-2177
(800) 548-ASCE (2723) and here (202) 789-7850
(202) 789-7859 fax or www.asce.org

October 10, 2017

The Honorable John Boozman
141 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Boozman,

We are writing to express our support for the Securing Required Funds for Water Infrastructure Now (SRF WIN) Act, a bill that will leverage Federal infrastructure funding established through the Water Infrastructure Finance and Innovation Act (WIFIA) program to finance critical water infrastructure investments. A well-maintained public drinking water and wastewater infrastructure system is critical for public health, strong businesses, and clean waters and aquifers, but the age-old adage "out of sight, out of mind" plagues our nation's ability to adequately invest in water infrastructure systems.

The American Society of Civil Engineers' (ASCE) *2017 Infrastructure Report Card* gave the nation's wastewater infrastructure a grade of "D+" and the nation's drinking water infrastructure a grade of "D." Despite increased efficiency methods and sustainable practices, there is a growing gap between the capital needed to maintain drinking water and wastewater infrastructure and the actual investments made. By 2025, the disparity between needed and anticipated funding for drinking water and wastewater systems will be \$105 billion.

The Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) – both authorized by Congress several decades ago – play a vital role in providing much-needed support for investments in state and local drinking and wastewater infrastructure. Another important financing mechanism – authorized in the 2014 Water Resources Reform and Development Act (WRRDA) – is WIFIA, which assists in financing large water infrastructure projects over \$20 million.

The SRF WIN Act blends the most successful parts of the SRFs and WIFIA to create a program that gives State Finance Authorities access to WIFIA loans for drinking and wastewater infrastructure projects. This program would offer a new and efficient tool to leverage limited federal resources and stimulate additional investment in our nation's infrastructure while safeguarding against any cuts to the existing SRFs and WIFIA programs.

America's wastewater infrastructure provides a critical service to the public; therefore, it is crucial that sustained, significant, and strategic investments from all levels of government and the private sector are made. We thank you for your introduction of this innovative new water infrastructure financing tool and welcome the opportunity to work with you on this critically important issue.

Sincerely,

Kristina L. Swallow, P.E., ENV SP, F. ASCE
2018 President of the American Society of Civil Engineers



Kei Y. Pang
Chief Executive Officer

Nidec Motor Corporation
8050 West Florissant Avenue
P.O. Box 36912
St. Louis, MO 63136
USA

T (314) 595-8359
F (314) 595-8249
kei.pang@nidec-motor.com

October 17, 2017

The Honorable John Boozman
Chairman, Fisheries, Water and Wildlife Subcommittee
141 Hart Senate Office Building
Washington, DC 20510

RE: Nidec Motor Corporation's Support for The SRF WIN Act

Dear Chairman Boozman:

The Nidec Motor Corporation is one of the largest global manufacturers of electric motors employing over 130,000 people in 40 countries. The Nidec large motor plant in Mena, Arkansas produces motors that drive pumps and pumping systems operating the infrastructure of our country. Nidec appreciates your committee's efforts to secure funding for America's water infrastructure and strongly supports the Securing Required Funding for Water Infrastructure Now Act - the SRF WIN Act. Nidec encourages all Members of the United States Senate to co-sponsor and support the passage of this landmark legislation. The SRF WIN Act has the potential to create and support thousands of manufacturing jobs over the next five years. Conservative estimates project 23,000 construction, engineering and manufacturing jobs are created for every billion dollars of investment in water infrastructure. Through proven leveraging of federal water infrastructure dollars - the SRF WIN Act has the potential to provide over \$50 B during the next five years for improvements to America's water infrastructure. The SRF WIN Act combines the proven delivery capacity of the CWA and SDWA State Revolving Funds with the significant leveraging of Federal infrastructure funding established through the Water Infrastructure Finance Innovation Act (WIFIA) Program - PL 113-121.

In the 2017 Budget, OMB estimated the Subsidy Ratio for WIFIA appropriated funds at 1:65. Under this Subsidy Rate, a \$200M annual Appropriation would support \$13B in direct loans to the State Finance Authorities administering the CWA and SDWA SRFs.



Providing State Finance Authorities increased funding is an efficient and sensible approach for the Federal government to support water and wastewater infrastructure projects across the nation.

The SRF WIN Act removes barriers to State Finance Authority participation in WIFIA by eliminating upfront application fees. The SRF WIN Act provides for expedited EPA consideration of WIFIA applications submitted by State Finance Authorities. Finally, the SRF WIN Act provides for State Finance Authorities to receive low interest loans - at or below the Treasury Rate.

The SRF WIN Act provides for fiscally responsible investments in our nation's critical water infrastructure that will improve US Competitiveness in the long-term and support US Manufacturing jobs in the near-term. Nidec Motor Corporation asks all Members of the United States Senate to co-sponsor and support this important legislation.

Sincerely,

A handwritten signature in black ink that reads "Kei Pang". The signature is fluid and cursive.

Kei Pang
Chief Executive Officer
Nidec Motor Corporation



October 12, 2017

Senator John Boozman
Chairman, Fisheries, Water and Wildlife Subcommittee
141 Hart Senate Office Building
Washington, DC 20510

Re: The Hydraulic Institute's Strong Support for The SRF WIN Act

Dear Chairman Boozman,

Thank you for your support of water infrastructure funding and your continued leadership. The Hydraulic Institute (HI), a trade association representing the nation's major manufacturers of pumps and pumping systems (member list attached) greatly appreciates your work to significantly increase funding for America's water infrastructure and strongly supports the Securing Required Funding for Water Infrastructure Now Act - the SRF WIN Act.

HI encourages all Members of the United States Senate to co-sponsor and support the passage of this landmark legislation. The SRF WIN Act has the potential to create and support thousands of manufacturing jobs over the next five years. Conservative estimates project 23,000 construction, engineering and manufacturing jobs are created for every billion dollars of investment in water infrastructure. Through proven leveraging of federal water infrastructure dollars - the SRF WIN Act has the potential to provide over \$50 B during the next five years for improvements to America's water infrastructure.

The SRF WIN Act combines the proven delivery capacity of the CWA and SDWA State Revolving Funds with the significant leveraging of Federal infrastructure funding established through the Water Infrastructure Finance Innovation Act (WIFIA) Program – PL 113-121. In the 2017 Budget, OMB estimated the Subsidy Ratio for WIFIA appropriated funds at 1:65. Under this Subsidy Rate a \$200 M annual Appropriation would support \$13 B in direct loans to the State Finance Authorities administering the CWA and SDWA SRFs. Providing State Finance Authorities increased funding is an efficient and sensible approach for the Federal government to support water and wastewater infrastructure projects across the nation.

The SRF WIN Act removes barriers to State Finance Authority participation in WIFIA by eliminating upfront application fees. The SRF WIN Act provides for expedited EPA consideration of WIFIA applications submitted by State Finance Authorities. Finally, the SRF WIN Act provides for State Finance Authorities to receive low interest loans - at or below the Treasury Rate.

The SRF WIN Act provides for fiscally responsible investments in our nation's critical water infrastructure that will improve US Competitiveness in the long-term and support US Manufacturing jobs in the near-term. The Hydraulic Institute asks all Members of the United States Senate to co-sponsor and support this important legislation.

Sincerely,

Michael Michaud
Executive Director, Hydraulic Institute

6 Campus Drive | 1st Floor N. | Parsippany, NJ 07054 | 973.267.9700 | FAX 973.267.9055
www.Pumps.org



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 *A.W. Chesterton Company
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 Afton Pumps, Inc.
 Armstrong Fluid Technology
 ARO Fluid Products, Ingersoll Rand Industrial Technologies
 *Badger Alloys, Inc.
 *Baldor Electric Company
 *Blacoh Fluid Control, Inc.
 Boerger LLC
 Buffalo Pumps Div. of Air & Liquid Systems Corp.
 Carver Pump Company PSG-GT
 Cascade Pump Company
 Chempump, a Division of Teikoku USA Inc.
 *Clarke Fire Protection Products, Inc.
 Clydex Pumps, an SPX Brand
 Colfax Fluid Handling
 Crane Pumps & Systems, Inc.
 *Danfoss Drives
 *Dynamatic® Drive Source International Inc.
 *EagleBurgmann Mechanical Seals
 Ebara International Corp - Fluid Handling Division
 Egger TURO Pumps North America, Inc.
 *Engineered Software, Inc.
 Essco Pump Division, Engineers Sales Service Co.
 Flowrox, Inc.
 Flowserve Corporation
 FPI Pumps, Inc.
 Franklin Electric Company, Inc.
 *General Rubber Corporation
 GIW Industries, Inc. (A KSB Company)
 Gorman-Rupp, Mansfield Division
 *Graphite Metallizing Corporation
 Great Plains Industries, Inc.
 Grundfos USA
 Grundfos Water Utility
 Peerless Pump Company
 Gusher Pumps
 Hayward Tyler, Inc.
 HERMETIC-Pumps Inc., A Division of Hermetic-Pumpen GmbH
 Hydro, Inc.
 Hydroflo Pumps USA, Inc.
 INDAR Maquinas Hidraulicas
 *Inpro/Seal - a Business Unit of Waukesha Bearings
 *Intelliquip, LL
 *Isomag Corporation
 ITT - Industrial Process
 Iwaki America Incorporated
 *John Crane Inc.
 *KCF Technologies, Inc.
 Kirloskar Brothers Ltd.
 *Kop-Flex Inc., Regal Beloit America
 KSB, Inc.
 Leistriz Advanced Technologies Corp.
 LEWA-Nikkiso America, Inc.
 *Lovejoy

2017 Membership

Met-Pro Global Pump Solutions - Dean Pump Product, A CECO Environmental Company
 Met-Pro Global Pump Solutions - Fybroc/Sethco, A CECO Environmental Company
 Metso Minerals Industries, Inc.
 *Mikasa Corporation
 *Momentum Engineered Systems, Inc.
 National Pump Company
 Netzsch Pumps North America, LLC
 Netzsch Canada, Inc.
 *Nidec Motor Corporation
 *NSK Corporation
 Patterson Pump Company
 Pentair
 Pentair - Aurora
 Pentair - Berkeley
 Pentair - Delta
 Pentair - Fairbanks Nijhuis
 Pentair - Hydromatic
 Pentair - Myers
 Price Pump Company
 PSG, a Dover Company
 Blackmer, Inc.
 Neptune Chemical Pump Co., Inc.
 Wilden®
 PUMPSense Fluid Engineering Pvt. Ltd.
 PumpWorks 610
 Reddy-Buffaloes Pump, Inc.
 *Ropian
 *Schneider Electric - Square D
 Scot Pump Division, Ardox Corp.
 ShinMaywa Industries, Ltd.
 Simflo Pumps, Inc.
 *SJE-Rhombus®
 Smith & Loveless, Inc.
 SPP Pumps, Inc.
 SULZER
 Sulzer Pump Solutions (US) Inc.-ABS USA
 Sulzer Pumps Solutions Inc.
 Sundyne LLC
 *Sun-Star Electric, Inc.
 TACO, Inc.
 *TB Wood's, Inc./Altra Industrial Motion
 Thrush Co. Inc.
 *Tritec Seal
 *US Pump Corp
 Vertiflo Pump Co., Inc.
 Wanner Engineering, Inc.
 Warren Rupp, Inc.
 *WEG Electric Corp.
 Weir Floway, Inc.
 Weir Minerals Lewis Pumps
 Weir Minerals North America
 Wilo USA LLC
 Xylem Inc.
 Xylem Inc. - Applied Water Systems
 Xylem Inc. - Water Solutions

* Associate Member

**WATERUSE**

1199 North Fairfax St, Suite 900 • Alexandria, VA 22314

February 1, 2018

The Honorable John Boozman
U.S. Senate
141 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Boozman:

The WaterReuse Association (WRA) would like to express support for S. 2364, the "Securing Required Funding for Water Infrastructure Now Act", or "SRF WIN Act".

WRA is a strong supporter of both the State Revolving Funds (SRF) and the Water Infrastructure Finance and Innovation Act (WIFIA) program as important financing programs for water and wastewater infrastructure including water reuse infrastructure. SRF WIN brings the advantages of these two programs together to leverage additional low-cost capital that states, large and small, can use to address a massive backlog of critical water infrastructure projects.

For many communities, reusing water is the only way to provide a safe, reliable, and locally-controlled supply of water, especially for communities experiencing significant growth or that regularly experience periods of prolonged drought. Communities incorporate water reuse to meet demand for potable and non-potable water supplies through methods such as recharging groundwater aquifers and augmenting surface water reservoirs. Communities facing water shortages are often in need of low-cost financing to help ensure these alternative supply systems remain financially viable to their customers.

The SRF WIN Act offers a useful complement to the existing SRF and WIFIA programs by providing states with an additional low-cost financing tool for recycled water systems that otherwise find it difficult to access necessary funds for investments. WRA members continue to turn to the SRF programs as a primary financing tool for these projects and we appreciate the legislative provisions incorporated in the legislation to ensure federal investment in the SRF remains strong.

Thank you for your support and for your continued leadership and commitment to addressing our nation's water infrastructure investment needs.

Sincerely,

Patricia Sinicropi
Executive Director
WaterReuse Association

www.watereuse.org

DIRECTORS

PHILIP L. ANTHONY
DENIS R. BILODEAU, P.E.
SHAWN DEWANE
CATHY GREEN
DINA NGUYEN
VICENTE SARMIENTO
STEPHEN R. SHELTON
JAMES VANDERBILT
BRUCE WHITAKER
ROGER C. YOH, P.E.



ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S UNINCORPORATED AUTHORITY

OFFICERS

President
DENIS R. BILODEAU, P.E.

First Vice President
PHILIP L. ANTHONY

Second Vice President
SHAWN DEWANE

General Manager
MICHAEL R. MARKUS, P.E., D.WRE

February 8, 2018

The Honorable John Boozman
Chairman, Subcommittee on Fisheries, Water, and Wildlife
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

RE: State Revolving Fund Water Infrastructure Now Act S. 2364 (SRF-WIN Act) - Support

Dear Chairman Boozman:

The Orange County Water District (OCWD; the District) supports your efforts to bridge the construction funding gap for publicly-owned clean water infrastructure projects. As the leading voice for effective federal partnerships with local water agencies, OCWD appreciates that your legislation, the State Revolving Fund Water Infrastructure Now Act S. 2364 (SRF-WIN Act), both maintains the United States Environmental Protection Agency's State Revolving Loan Fund Program and creates a vital new program of assistance.

The SRF-WIN Act, introduced on a bipartisan basis, would establish a new water infrastructure program to provide direct assistance to states that could be leveraged, in a manner consistent with the existing Water Infrastructure Financing and Innovation Act (WIFIA) program, to help clear individual state project backlogs. In California, projects cannot be constructed because the State Revolving Fund (SRF) is financially incapable of addressing all the pending needs. The District believes that if the SRF program would not be impacted by a new source of revenue to the states, and the SRF would be fully funded at not less than fiscal year 2018 levels, then an approach like that detailed in the SRF-WIN Act holds promise.

The SRF-WIN Act envisions providing states with funding assistance that could be leveraged using United States Treasury-rated bonds with no fees. This is vital to making the program attractive to public agencies. Also, the legislation authorizes California to use its share of any appropriated assistance to construct up to \$7 billion of state infrastructure. This recognizes our population and overwhelming project needs. The State of California currently has \$2 billion completed applications pending under the SRF program and another \$5.6 billion in projects under development.

26000 8100
Fountain Valley, CA 92728-8100

10700 Wood Street
Fountain Valley, CA 92705

(714) 378-3500
(714) 378-3333 FAX

www.ocwd.com

The Honorable John Boozman
February 8, 2018
Page 2 of 2

As you and your colleagues consider final legislative options to help address the substantial funding need within the water sector, we look forward to working with you to advance the SRF WIN Act to address the substantial backlog of water projects and preserve the existing role that the SRF serves. If you have any questions, please do not hesitate to contact Legislative Liaison, Alicia Dunkin, at adunkin@ocwd.com or (714) 378-8232.

Sincerely,



Denis R. Bilodeau, P.E.
President

CC: The Honorable Dianne Feinstein
The Honorable Kamala Harris



CALIFORNIA ASSOCIATION of SANITATION AGENCIES

1225 8th Street, Suite 595• Sacramento, CA 95814 • TEL: (916) 446-0388 • www.casaweb.org

January 29, 2018

The Honorable John Boozman
Chair, Subcommittee on Fisheries, Water, Wildlife
Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Chair Boozman:

The California Association of Sanitation Agencies (CASA) supports your efforts to bridge the construction funding gap for publicly owned clean water infrastructure projects. As the leading voice for California's public wastewater agencies, CASA wants to ensure that Congress is dedicated to maintaining a robust federal partnership under the Clean Water State Revolving Loan Fund (CWSRF) Program and to ensure that any new programs of assistance do not disadvantage this vital program.

It is our understanding, from your staff, that you intend to introduce bipartisan legislation that would establish a new water infrastructure program to provide direct assistance to states that could be leveraged, in a manner consistent with the existing WIFIA program, to help address clean water project backlogs within individual states. California has a significant backlog of clean water projects, and existing CWSRF financial resources are inadequate to address these needs. Our preference would be for increased direct grant funding to the Clean Water SRF program. However, provided the SRF program would not be adversely impacted by a new source of revenue to the states, and that the CWSRF would be fully funded at not less than fiscal year 2018 levels, an approach like that detailed in your draft proposal holds promise.

The State of California currently has approximately \$2 billion in completed project applications awaiting funding under the CWSRF program and another \$5.6 billion in projects under development that will need funding. We understand your proposed legislation envisions providing states with funding assistance that could be leveraged using U.S. Treasury-rated bonds. It is important that this legislation provide California with a sufficient share of any appropriated assistance to construct up to \$7 billion in clean water infrastructure projects. This amount is vital to address our population and overwhelming project needs.

As you and your colleagues consider final legislative options to help address the substantial funding need within the water sector, we look forward to working with you to advance a balanced and effective investment in water infrastructure.

Sincerely,

A handwritten signature in dark ink, appearing to read "Adam D. Link".

Adam D. Link
Director of Government Affairs

Senator BOOZMAN. Mr. Sternberg, let me ask you. The SRF has a great track record of handling SRF funding to address vitally important water issues, wastewater projects in the State for years. Rural States like Arkansas, though, have limited access to funding. Across the country, SRFs have thoroughly vetted projects from small, medium, and large communities that are waiting to be funded.

Can you please explain what the additional funding created by another tool in the toolbox, like SRF WIN, what would that mean for water infrastructure in rural America?

Mr. STERNBERG. Thank you, Senator Boozman. That is a great question. Let me just say Arkansas Natural Resources Commission is the agency in Arkansas that handles the SRF for the Safe Drinking Water Act and the Clean Water Act, and they have done an excellent job, but there is still a need. With this bill, you know, you have the SRF WIN in it, and that will allow the WIFIA program to be much more helpful to some of the rural communities such as we have in Arkansas, which is a very rural State, and many of your States are rural.

But not only rural communities. We think it will steer the WIFIA to look at the communities with the greatest economic need and communities that each State thinks is the priority, and giving the State the priority that handles SRF to say this project needs to be funded. It also allows for that low interest rate to come through with the WIFIA funding. It will be an excellent partnership with the SRFs, and it will be excellent to the utilities across the State of Arkansas and many States across the Nation.

Senator BOOZMAN. Ms. Swallow, we certainly appreciate your leadership and the great job that your organization does in constantly pushing us in the right direction and really describing the situation that we are in regarding infrastructure.

Can you tell us a little bit about the growing shortfall in infrastructure funding in the country?

Ms. SWALLOW. We could talk for days about that, Senator Boozman. So, when we start talking about the investment gap needed for our infrastructure systems, you can look at drinking water alone and recognize that we waste billions of gallons of water everyday through leaky pipes. That equates to trillions of gallons a year. And we don't have a single drop of water to waste, really, especially in the western portions of our country.

We have a growing funding gap. Currently, it is estimated, in the next 20 years, almost three-quarters of a trillion dollars, \$750 billion is the funding gap on our water and wastewater needs alone. We have to find a way to invest in this infrastructure.

Senator BOOZMAN. So, we are all doing the best we can. We are working away, but the current situation is not near as good as we would like, so something like an SRF WIN type of financing, how would that affect things?

Ms. SWALLOW. First, I want to thank you for your sponsorship of the SRF WIN Act. It is—

Senator BOOZMAN. Myself and Senator Booker.

Ms. SWALLOW. Yes, thank you, and Senator Booker.

It is just one more tool in our toolbox that will help our local communities fund the infrastructure that they need to serve their

communities' needs. It is intended to take the best parts of the State Revolving Funds and the WIFIA program and provide that access to our local communities where the State infrastructure financing authorities can implement the program. It provides additional flexibility; it doesn't further tax the EPA with another program where the State infrastructure financing authorities are already administering our State Revolving Funds.

So, it is a great tool. It will leverage the limited Federal funding \$1 up to \$50 in additional funding. It will be just one more tool that our local agencies can use.

Senator BOOZMAN. Good. Thank you very much.

Senator BARRASSO. Thank you, Senator Boozman.

Senator Fischer.

Senator FISCHER. Thank you, Mr. Chairman.

Ms. Swallow, if I could follow up on some of this. As you know, our inland waterways are critically important for moving our abundant agricultural products to ports located along our coasts. As the only triple landlocked State in the Nation, Nebraska and our ag producers rely on efficient river barge traffic and a functional inland waterway network to supply our overseas customers with our high quality products.

As you note in your testimony, there is great need for investments in maintenance and repair of these inland waterways. Also in your testimony you emphasize the benefits of WIFIA loans authorized by the Army Corps and the benefits that they could supply to this network.

Can you elaborate on how the WIFIA loans could be applied for inland waterway projects?

Ms. SWALLOW. WIFIA loans are, again, just one more tool that we have; it is an alternative financing mechanism where we can leverage the limited Federal investment \$1 up to \$50 of additional private and alternate funding sources.

When we have insufficient funding, we have to be able to use all the tools that we have in our toolbox, and that is just another way that we can do it. The WIFIA program has just recently been started by the Army Corps, and we are excited to hear that, and we are looking forward to their continued implementation of it.

Senator FISCHER. Do you believe that private-public partnerships are feasible when looking at inland waterways? Do you think that there will be private enterprises step forward to be able to access that funding?

Ms. SWALLOW. As long as there is a way to offset and for them to see a revenue source, they are a great way to improve our network. As you mentioned, so many of our products go through that inland waterway system, so I do see that as a solution.

Senator FISCHER. Thank you.

Mr. Sternberg, I thank you for once again testifying before our Committee. Given your career working with wastewater infrastructure, I am sure you are familiar with unfunded Federal mandates, specifically those communities facing expensive Clean Water Act compliance requirements related to stormwater and wastewater projects.

In my home State of Nebraska, the city of Omaha was hit with a \$2 billion unfunded Federal mandate from the EPA to update its

combined sewer overflow system. I was pleased to see my Water Infrastructure Flexibility Act included as Section 5006 in the bill before us, and I thank you, Mr. Chairman, for that.

The purpose of this section is to allow communities facing expensive stormwater and wastewater infrastructure updates to have greater flexibility to achieve compliance under the Clean Water Act.

Mr. Sternberg, can you please discuss your experiences with communities that are forced to comply with expensive Federal mandates, and will this section of the bill help alleviate some of the financial and structural burdens these communities are facing?

Mr. STERNBERG. Thank you, Senator. My experience in Arkansas, where there are about 700 community water systems, and then we have about 350-some wastewater systems—Arkansas, as Nebraska, is a rural State. The majority of all systems in the Nation, 14,500, serve less than 10,000. So, when you start passing regulations from EPA down to comply with the same level as a large city such as Omaha, it is harder because you don't have the customer base to spread that cost across the board. It is very hard financially on the system, the customers of the system, but it has to be paid for some way or another.

That is why a grant-loan ratio. That is why we think, also, there needs to be more technical assistance put in for Circuit Riders. That is what we do; we go out there and work with these small systems and larger systems with our equipment. We do the INI studies on their collection system. There is no need in building a brand new plant if you can fix the INI. It is kind of like Ms. Swallow mentioned, the water loss that you have on leaks on water systems. You know, let's identify the problems and fix them; don't build another well or another treatment plant because you have more leaks. It is the same way on the wastewater side. You know, let's be reasonable. Let's look at it. That is where the engineers do an excellent job identifying the problems on your utility to try to come in compliance. But we have always argued that unfunded mandates, EPA states that you need to do this, but they don't fund it.

We have had the same problem with the EPA on our technical assistance funding. Back in 2012 it was put out through EPA, no more earmarks, so in 2012 they had to go out and go through the process of bidding out all the technical assistance. Well, there were several different pieces of legislation that was introduced to make EPA streamlined and do it with the utilities that is deemed the most benefit, whatever nonprofit is most beneficial to them. They haven't done that. EPA has not done that, and members on this Committee have wrote letters to EPA in regard to that, about, you know, you need to go back to this rule and do it this way, but they haven't done it, and we have letters to back up, letters that Senators sent and EPA responded back.

Senator FISCHER. We have seen a huge increase on these bills to the people in the city of Omaha, so I am hopeful that the flexibility provided in this bill is going to help alleviate some of that hardship they are facing.

Mr. STERNBERG. I think it definitely will.

Senator FISCHER. Thank you.

Mr. STERNBERG. Thank you.

Senator BARRASSO. Thank you, Senator Fischer.

Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Chairman. Let me open my time by thanking you and the Ranking Member for the constructive way in which this Committee is proceeding on WRDA legislation. We often find ourselves at odds on certain issues, but I applaud the way in which the Committee works in bipartisan fashion on the water resources, and I want to particularly recognize the both of you.

Ms. Swallow, one of the things that we see is that the march of progress and innovation brings new materials to the fore, innovative materials, often composite materials. What is your read on how well the Army Corps engineering manuals and other guidance provide adequate preparation for applicants to be able to use those innovative materials in projects? Should that be a continuing focus to try to make sure that the standards that have been in place for concrete and steel and other more traditional materials are updated to include innovative and composite materials?

Ms. SWALLOW. Senator Whitehouse, that is a fantastic question. Indeed, we do agree that we need to provide for all agencies to incorporate the use of new materials. We can't continue to design projects the way we did 50 years. We can't afford to do that, and the projects won't be sustainable, so we need to figure out ways to incentivize development of these new materials, their use of the materials, and ensure that they do get into our projects.

Senator WHITEHOUSE. And out of date engineering manuals and other guidance create a lag that inhibits the implementation of projects that include those new materials, correct?

Ms. SWALLOW. It is natural that the standards and guidelines do have a bit of a lag, but the intention there is to ensure that we are protecting public safety and not implementing them too soon, so we need to make sure that we both incentivize the use of them, but also continue to ensure that they are being safely used.

Senator WHITEHOUSE. Well, I appreciate that.

In Rhode Island we have a lot of small communities, and I see Mr. Bullock here representing another coastal State with small communities. I have noted that the Army Corps' Flood and Coastal Storm Damage Reduction Account in the fiscal year 2019 budget is funded at \$1.49 billion. Of that \$1.49 billion, we have found only \$40 million marked for coastal projects. Even in the Flood and Coastal Storm Damage Reduction Account, the ratio of upland and inland projects to coastal projects appears to be about 37:1, which does not seem appropriate under virtually any circumstances, but particularly not appropriate when we look at the type of coastal flooding, coastal storm, lousy FEMA mapping, and other challenges that small communities face.

What is your comment on that?

Mr. BULLOCK. Senator, I am going to not tell you how to do your job, but I am going to yield to my fellow Delawarean to my left who is the expert in this.

Senator WHITEHOUSE. I accept that referral.

[Laughter.]

Senator WHITEHOUSE. Mr. Pratt.

Mr. PRATT. And I am now retired from the State of Delaware, but 38 years in the business, and that is why my Secretary of State is referring over to me.

From Delaware's standpoint and from the national standpoint, we certainly see the problem with that discrepancy that small investment made to the coastline. I think to answer that, I would point out something I have said to this Committee in the past. For point of illustration, how far off we are in the investment, and I use the fact that we are depending, in my mind, anyway, we are depending too much anymore on supplementals to fund coastal restoration work. We are responding, and I certainly see a number of Senators—

Senator WHITEHOUSE. So your recommendation would be that we need to make a stronger focus on coastal restoration work right into the WRDA program?

Mr. PRATT. Sixty-five billion dollars was spent for Hurricane Sandy supplemental, \$65 billion. And of that, let's say \$20 billion of that was probably very much directly coastal related in the affected States. We take that number and we say \$20 billion over one storm and maybe 25 percent of the coasts of the United States. If we had spent that money for 20 years over the entire Nation, that is \$1 billion investment a year to avoid the damages and to avoid the suffering that occurred before we had to pay that cost of recovery.

Senator WHITEHOUSE. In my final seconds, let me make the point that Rhode Island has not applied under the WIFIA program for some time now. One of the reasons is that the Rhode Island infrastructure bank is actually easier to work with; doesn't require such a paperwork load up front and that, for smaller projects and for smaller communities, the WIFIA project really is not all that useful. So, I hope that as we continue to work our way forward, we can find ways to make the WIFIA program more amenable to smaller projects and smaller communities, because a great number of our coastal communities are smaller communities; we are not all New York City.

Thank you.

[Laughter.]

Senator BARRASSO. Thank you, Senator Whitehouse.

Senator GILLIBRAND. So sad for you.

[Laughter.]

Senator BARRASSO. Senator Capito.

Senator CAPITO. Thank you, Mr. Chairman.

Thank all of you for being here.

And thank you and the Ranking Member for working so well together on this.

This is really a question for anybody who wants to handle this on the panel. For many of our constituents, how the Corps actually deploys their funds and rehabilitates our waterway infrastructure is confusing and ultimately a disappointing maze. First you have a study that is authorized by Congress; then the Corps has to complete the study, often soliciting funds from their local stakeholders; then Congress authorizes the study and appropriates funds to the Corps for construction or operation and maintenance. Still, sometimes after all of this has occurred, nothing really happens, and

usually the refrain from the Corps is that the project failed to pass muster under the OMB's benefit-cost ratio. That standard is \$2.50 in benefits for every \$1.00 in Federal investment, with a discount rate of 7 percent for future or long-term benefits.

Projects are having trouble meeting these threshold, and we are left to explain to our constituents that their project, no matter how important to the local community, can't proceed, despite all of the Federal reviews.

So, I was wondering, do any of you have experiences that you would like to share in which otherwise worthwhile projects have been put on indefinite hold because of this benefit-cost ratio issue?

OK, so maybe that is not a problem.

Yes, sir, Mr. Riley.

Mr. RILEY. Senator Capito, I can only do perspective from some of the projects in my neighborhood. When you use that standard without looking out way into the future, there is much of the projects in our region that would have never been built at that time, so, yes, that is a huge one. I can tell you from personal experience, when you get the Army Corps of Engineers put their foot down on a project you have been working on for 10 years or longer, maybe decades beyond that, that will crush you right there in a local led effort.

Senator CAPITO. Right. Well, I think this bill tries to help answer that question by letting districts regionalize their projects so they become larger.

Mr. Pratt.

Mr. PRATT. Just another perspective from the State of Delaware. I think there are 19 or 20 federally authorized navigation channels in the State, only 3 of which are being maintained. It is a different metric for determining how waterways are maintained, which ones are actually supported through dredging and surveying work. We have had channel markers removed within our State because the Coast Guard can't verify the port channel is there anymore. It is a different metric, but it gets to the same point, that the rationalization of what projects we do has to be examined. I think this is why the National Academy Study is so important; it should get into that way in which the Corps does its business, see how we can modernize it, see how we can bring it forward and better serve the Nation.

Senator CAPITO. Good. All right, thank you.

Mr. Sternberg, in your testimony you highlighted, in Section 5010, which contains the text of the Water Workforce Investment bill which Senator Booker and I have worked on. This provision establishes an EPA grant program to spur education, job training, and apprenticeship for careers.

You mentioned this in your opening statement, but for a rural State like West Virginia, this is a huge challenge. Many of our folks that have been maintaining our water systems were under the old system and are retiring, and trying to find new and young talent has been an issue for us. Could you speak to that, please?

Mr. STERNBERG. Yes. Thank you, Senator. National Rural Water actually started working with the Workforce Development Department of Labor on apprenticeships for the water industry, and this last year we just kicked it off, and each State is working through

that process, but it is the same problem in our State, aging work force. We have an aging infrastructure for utilities, but we also have an aging work force as far as knowledgeable individuals that have run water and wastewater systems for years, and getting new, young blood to come in to the industry.

One of the reasons I still believe is the pay scale is not where it should be. It is the most important thing we do every day. Everybody has to have good, safe drinking water. Everybody has to have a process for disposal of your stuff. I mean, it does not make sense to me. But I think with this it ignites and starts the process, and with this in the bill I think it is an opportunity for every State to start expanding out and going into the work force and bringing new people in.

Senator CAPITO. Well, I have a small community in West Virginia where the person who was charged with keeping the water system running and providing the clean drinking water also was the person who checked the parking meters, and you know, took the notes at the city council meeting.

Mr. STERNBERG. The dog catcher and everything.

Senator CAPITO. The dog catcher and everything. And the way the requirements that we have now, you can't do that; you have to have the professionalization that goes along with this, which can be very complicated, so thank you very much.

Mr. STERNBERG. Thank you for the addition in this bill.

Senator CAPITO. Thank you.

Senator BARRASSO. Thank you, Senator Capito.

Senator Gillibrand.

Senator GILLIBRAND. Thank you, Mr. Chairman and Mr. Ranking Member, for holding this hearing, and for your bipartisan leadership in drafting this bill, the America's Water Infrastructure Act of 2018.

New York, as you know, has a wide range of water resource needs. We are a Great Lakes State and a coastal State. We have hundreds of dams and levees that are critical to communities across the State which must be properly maintained to ensure those communities are protected from flooding, and we face the threat of aquatic invasive species that, if unchecked, decimate fisheries and result in major economic and environmental damage.

I am pleased that this bill includes a number of our very important priorities. This bill includes the Long Island Sound Restoration Stewardship Act, which reauthorizes and reforms Federal programs that are essential to reducing pollution and protecting the Long Island Sound Watershed. It also authorizes the Great Lakes Coastal Resiliency Study to protect communities like those that are experiencing devastating flooding last summer along Lake Ontario. I am also grateful that the bill will utilize the study for Chautauqua Lake Project to protect communities in Westchester from flood risk.

With that, just a few questions.

For Anthony Pratt, I appreciate in your testimony you mentioned the Great Lake Coastal Resiliency Study, which is a priority of mine and something that is so important for communities across central and western New York. As you may be aware, last summer we experienced record flooding along the shorelines of Lake On-

tario and the St. Lawrence River, resulting in a Federal disaster declaration due to the millions of dollars in damage of both property and infrastructure.

Can you speak a little more about why it is important to conduct comprehensive regional resiliency studies like the North Atlantic Study conducted after Superstorm Sandy?

Mr. PRATT. Yes, Senator. Thank you for that question; it is one that I mentioned briefly a few minutes ago that we support, ASBPA.

Looking at the Nation as a whole, we have a series of studies that are done, North Atlantic Study, South Atlantic Study. There are two coastal studies in the Gulf Coast, and now the Great Lakes coming onboard, which brings us to a point where the Continental United States is going to have fairly comprehensive plans, without the West Coast engaged yet, on resiliency, and there are a number of forces at work for each one of those units or sections that is very unique.

But developing a strategic plan going forward so we can spend the money to mitigate prior to the disaster, save the supplemental dollars that are being spent at far to a greater rate, as you understand from the State of New York, \$65 billion spent for recovery from Hurricane Sandy. That was after the destruction of property, after the human suffering occurs. Let's avoid the human suffering, let's avoid the disruption; let's get out in front of it and invest in that infrastructure that is going to protect the infrastructure that is behind it, and I think the coastal infrastructure is very important in that role.

Senator GILLIBRAND. Do you see any projects the Corps could be looking at to improve the resiliency of coastal and Great Lake communities? And a follow on, in your view, what are the barriers that hold the Army Corps back from investing more in natural infrastructure projects like wetlands restoration, and what more should Congress be doing to address those barriers?

Mr. PRATT. Well, I think this bill addresses that pretty well. In looking at the full suite of benefits across business lines that accrue from the investment made, looking at green infrastructure and nature-based infrastructure. In the Great Lakes region there is a lot of bluff erosion because beaches at the bottom of the bluffs are eroding. Great Lakes levels fluctuate over time because of a difference in weather patterns.

There are a variety of different forces at work there, but that said, if we can invest in green infrastructure to avoid the damages up front, that is good, and the suite of benefits that accrue, by enumerating the solutions that have multiple benefits, I think the benefit-cost analysis is the area where we are not doing a good job on the benefit side, what comes from that investment. There would be many more values achieved through the investment of nature-based protection than we are counting, and that is an important step forward.

Senator GILLIBRAND. Thank you, Mr. Pratt.

Ms. Swallow, addressing the massive backlog of dam and levee safety projects is another important priority. We have approximately 400 high hazard dams in New York. What are the consequences if we fail to take this problem seriously and allow aging

dams and levees to continue to fall into disrepair, and how can the Corps provide better assistance to States and localities that are responsible for maintaining this infrastructure, but are faced with strained budgets and limited funds?

Ms. SWALLOW. Senator Gillibrand, that is a great question. What are the consequences? The consequences are devastating if we fail to maintain our levees and our dams. The challenge with that is that we are not even aware of the full spectrum of levees that we have. We are underfunding our National Levee Safety program. We are only spending \$5 million to \$10 million a year, where it is authorized at \$79 million a year. And some of those authorized funds actually would go to the repair of those levees. So, first we have to identify their locations. Once we know their locations and their condition, then we can start to repair them.

In terms of high hazard dams, the number of high hazard dams is increasing annually as more and more people continue to move into areas that are protected by these dams. Roughly 17 percent of our 90,000 dams today are high hazard, and should that dam fail, it will result in a loss of life, so the consequences are devastating.

Anything the Corps can do to help increase that investment in dams and levees, but really, it ultimately comes down to ensuring that we are appropriating the funds that are already authorized and making sure that we get those funds to the projects.

Senator GILLIBRAND. Thank you.

Thank you, Mr. Chairman.

Senator BARRASSO. Thank you very much, Senator Gillibrand.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

I have three areas, as I listened to the opening statements and heard the responses to questions, that I think could use a little more elaboration.

Mr. Sternberg, I wanted to tell you you have a real champion of rural water in Senator Boozman. He is one that is always on that ball, and we agree with the problems. After all, Oklahoma and Arkansas are both rural areas. We are both impacted by how we do treat that.

What I would like to have you do is anything you want to add to how this bill is going to be helpful specifically to the rural areas, give you the chance now to elaborate on that, should you want to.

Mr. STERNBERG. Thank you, Senator Inhofe. We appreciate all your work from Oklahoma for rural water. My counterpart, James Gammell, talks about you all the time, so thank you for the opportunity to add some additional stuff.

My last comment on this bill would be, again, 14,500 wastewater systems throughout this Nation in every State represent 10,000 population and under. They are the ones that rely on rural water technical assistance in the field, troubleshooting problems that they have because, again, they don't have the expertise as larger systems where they have—

Senator INHOFE. We are the resources. I know it is not any different in Arkansas than it is in Oklahoma, and when this hits them, they have no way of responding to it as it might in a major metropolitan area.

Mr. STERNBERG. Exactly. So, the technical assistance funding for the clean water Circuit Riders is essential. It is essential. The Safe Drinking Water Act has the Circuit Rider technical assistance provision of \$12.7 million. That is the issue that I have; EPA is a stumbling block because of how they have appropriated that money and put it out.

Senator INHOFE. OK. That is an excellent statement. I just want to make sure we had everything in the record that referred to that.

Mr. STERNBERG. I have a letter that the Senators here sent to EPA requesting that they—

Senator INHOFE. I think it would be appropriate to ask unanimous consent that that letter be made a part of the record at this point.

Senator BARRASSO. Without objection.

Mr. STERNBERG. Thank you.

[The referenced information was not received at time of print.]

Senator INHOFE. Ms. Swallow, really, 150,000 civil engineers? Did I hear you right?

Ms. SWALLOW. Yes.

Senator INHOFE. And you are in charge of all of them?

Ms. SWALLOW. I am not so sure I am in charge. I represent them.

Senator INHOFE. Well, in your statement, toward the latter part of your statement, you did address the SRF WIN Act, and I just want to remind everyone that not only myself, but also Chairman Barrasso is with Senator Boozman on this legislation.

Now, from your very unique position, is there anything you have not said concerning that that you would like to get in the record? You are the head of the civil engineers. What do you think?

Ms. SWALLOW. Thank you for the opportunity. We are really excited that this bill is being advanced in a bipartisan manner. We are excited to hear that you are working on the SRF WIN Act. Ultimately, when we talk about our infrastructure, anything we can do to increase the investment, that is the biggest challenge, is increasing the investment. We are woefully underfunding it.

Senator INHOFE. OK. Well, I appreciate that very much.

Mr. Riley, you responded to Chairman Barrasso's statement when we talked about local participation. You know, there are some people who really don't think a good decision is made unless it is made in Washington, and there are those of us who believe, who have served in the private sector, as well as the public sector, at local levels, we don't agree with that.

In your testimony you say the best decisions on water issues happen at the State and local level, and I would agree with that. The decisions made in Montana are just not the same as they would be made in my State of Oklahoma, in eastern Oklahoma versus western Oklahoma. That is why local decisions in control are so important.

Is there anything you would like to expand on the advantages of the local participation that you have not yet?

Mr. RILEY. Thank you, Senator Inhofe. I guess the proof is in the pudding, in fact, the local effort. That means that we have spent our money before we come to see you, and it is our idea; and I believe that sells it in itself, that we have come to you, we have spent a lot of money. In our State I have worked on rural water tribal-

State irrigation projects. We are coming to you; that means that it has already been originated on our side of the ball, looking for help from you.

Senator INHOFE. That is a great reminder, and we will all remember that. Thank you very much.

And thank you, Mr. Chairman.

Senator BARRASSO. Thank you, Senator Inhofe.

Senator Carper.

Senator CARPER. Mr. Chairman, I received a number of letters of support from various outside shareholders and stakeholders. I would like to enter these into the record. They include the League of Conservation Voters, National Wildlife Federation, Audubon, American Rivers, American Shore and Beach Preservation Association, National Association of Realtors, the Environmental Defense Fund.

I would just ask unanimous consent that those letters of support be entered into the record.

Senator BARRASSO. Without objection.

Senator CARPER. Thank you.

[The referenced information was not received at time of print.]

Senator CARPER. I just want to say this has been a great hearing. I mentioned to the Chairman. On issues, and usually water resources issues, we are very good at working together, and frankly on other issues as well. Some of our issues that we discuss are more contentious, as you might imagine, but this is just a great example of where we can, I think, make progress by setting aside our differences and focusing on what Mike Enzi, the Senator from Wyoming likes to say—and the Chairman has mentioned this before—but Mike Enzi likes to say the reason why he and Ted Kennedy used to get along so well on issues before the Health, Education, Labor, and Pensions Commission when Ted Kennedy was senior Democrat, and Mike Enzi, a very conservative Republican, was the Republican leader on the Committee, I used to say to Mike Enzi how do you guys get so much done, and he once said to me, he said, Ted and I agree on about 80 percent of the stuff, and we disagree on about 20 percent of the stuff. He said, what we do in the Health, Education, Labor, and Pension Committee is we focus on the 80 percent where we agree, and we set aside that 20 percent to another day.

And I think what we are doing today is focusing on the 80 percent, and you are helping us in this, and we are deeply grateful.

I want to ask the first question, if I could, of Secretary Bullock, if I could, with respect to ports and then the Corps' budget in that regard. By 2020 I am told that the total volume of cargo shipped by water into and out of this country is expected to be double that of 2001. Think about that. By 2020 expect the cargo shipped into our country and out of our country to double by 2021.

As the ships continue to get bigger, we see more congestion at the docks, and we see larger ships require deeper navigation channels. We are deepening right now the channel that goes from the Atlantic Ocean through the Delaware Bay, Delaware River up into New Jersey and Pennsylvania. Only a few ports have that kind of deep navigational channels.

How do we ensure that ports can effectively distribute and receive goods as ships continue to grow in size? How do we ensure that ports can effectively distribute and receive goods as ships continue to grow in size?

Secretary Bullock, in your opinion, how does the America's Water Infrastructure Act of 2018 bill before us support our ports' needs; not just in Delaware, but beyond, well beyond? Thank you.

Mr. BULLOCK. I appreciate the question, Senator. So, I would start out by sort of reiterating what you said earlier about partnerships and figuring out how to work together on the 80 percent where you can agree, because I think that is the key to success here.

We know that our need for port capacity is going to continue to grow, and probably grow, hopefully grow significantly over the course of the next 10 or 20 years. As has been said here today, the role of the Corps of Engineers in all that is just critical.

I will take the example that we are involved in right now as indicative of that. Even before we decided that we were going to try to build a new port, and we are trying to build, as you know, a new facility not too far from where you and I live on the Delaware River, and it is about a \$600 million to \$750 million project to build this new terminal. Even before we made the full decision that we were going to go ahead with that, we had to start working with the Corps of Engineers to determine whether or not the site was going to be suitable for that. And even before we bought the piece of property, in fact, we had environmental studies underway to determine whether the property was suitable for dredging, for example.

And now that we are a couple years into it, we are already 1 year into our partnership with the Corps of Engineers in the dredging piece of that, which is supposed to be, I think a 2- or 3-year process all told, and who knows what happens in between.

So, as has been said several times by this panel in a number of different contexts, a well supported, well funded, well devised plan by the Corps of Engineers is just absolutely critical to us being successful.

If we can get that port up and running by 2024, 2025, that is a pretty good accomplishment, right, to build a new port. It is also 6 or 7 years ago, which strikes many people as being a long time, but that is how long it takes to do all of this right now.

To the extent that we get a well resourced Corps of Engineers, we can minimize that amount of time, at least from the regulatory perspective, in getting the approvals that we need, so that is critical.

To the other part of your question, about the ships getting larger and the changing nature of the businesses as it relates to that, we know that ships coming up the Delaware River are only going to be so large, and because of the deepening of the channel, we can now handle larger ships. We can't handle the largest ships, but it is a sort of spoke and wheel business practice on the part of most of our customers, anyway, so that is not going to hold us back.

Making sure that channel deepening is completed, making sure that it is then maintained after it is completed, making sure that we accommodate things like where we put dredge spoils, for example, which is going to be a very big issue for us, maybe not in the

short term, but certainly is going to be in the long term, these are the things that will allow us to maintain our commercial development and will make us successful in the longer term.

So, the overall message, I think, from me, and I heard it from others, I know we all have our budget constraints, we certainly do in the State of Delaware, but this is not a place to cheat. This is not a place to cheat the budget. This is a place where not only will you facilitate things like what we are doing in Delaware, but you will be doing the exact same thing around the country; you will grow jobs, you will grow the kinds of jobs that we need to be developing in our country right now, blue collar jobs that we so desperately need to increase, and you are going to promote more economic development in our country.

Senator CARPER. Thank you for an excellent and thoughtful response.

Mr. Chairman, I have another question to ask of Tony, but let me—

Senator BARRASSO. Please, go right ahead.

Senator CARPER. Are you sure?

President Pratt, as the President of the American Shore and Beach Preservation Association with a long, rich history with coastal issues, and as a former non-Federal project manager for the State of Delaware, you know the importance of pairing natural infrastructure improvements with engineered flood control solutions and how they can complement each other. How can gray and green infrastructure work together? How can gray and green infrastructure work together? In what ways does the bill before us actually support that hope, that aspiration? Please.

Mr. PRATT. Thank you. Good question. Gray infrastructure at the coastline refers to the kind of practices that were done in the 1930s, 1940s, 1950s, perhaps, where seawalls were built, bulkheads were constructed, breakwaters were constructed and became a way of trying to tame the forces of nature that were impacting the coasts.

Over time, we began to look at it from a broader perspective. If you stop and think just for a minute what attracts so many Americans to the coasts, it is not a wall and a sea on the other side of it; it is a beach, it is a dune, it is a wetland, and those beaches, dunes, wetlands, the vistas that they provide for people, the recreational benefits, but also the protection of estuaries, which is vitally important. We have seen the collapse of protection in the Delta in Louisiana, for instance. The Chandeleur Islands and their collapse created devastation of wetlands, losses of wetlands, more exposure of New Orleans to coastal storms.

So, looking at systems that bring back those natural features is why we went to the coast; we didn't congregate at the coast because it is a solid wall, and then there is sea on the other side. Those amenities, those resource values are very important to people, so bringing those back into the fold, they can perform very well. We think in our minds about the Dutch and the way they protect country, which is below sea level. I used to think there were probably giant walls everywhere. I have seen photographs—I have not been to Holland to examine them, but I have seen photographs, and their protection, their dikes, as they are called, are dunes and

beaches, massive dunes and beaches that are providing recreational amenities, natural resource amenities, but also do the job of keeping the sea back.

So, combining the two I think is a way forward that accomplishes many goals, and I think the National Academy Study and the GAO study looking at the benefit-cost analysis should pick up on some of those values that come from that investment.

Senator CARPER. Thank you.

Would you just mention what is going on at the Prime Hook National Wildlife Refuge with respect to transforming a freshwater marsh into a saltwater marsh in order to sort of raise it up and really to save it and preserve it?

Mr. PRATT. Certainly. The National Wildlife Refuge at Prime Hook is one that is a Delaware Bay fronting resource. For a number of years, because of mismanagement of the streams and creeks that went through that wetland system back in the early part of the last century, Phragmites took over, dominated the coastline. There was a beach, and there were seas of Phragmites, the tall reed that we see all over Delaware.

To reverse that non-productive land, the Department of Interior, U.S. Fish and Wildlife Service, created impounded freshwater wetlands back in the 1960s and 1970s. Those provided tremendous benefit to migratory waterfowl for quite a number of years, until the beach and dune system broke down and seawater got into that system and created a tidal anomaly that didn't allow those wetlands to flow out.

Bottom line is that, through Hurricane Sandy relief, \$38 million was appropriated to the Department of Interior to rebuild the beach and dune, and to create a wetland system that was based on tides again. Again, entirely valued by benefit-cost analysis was strictly on the environmental improvements that would come, and the benefit would provide to migratory waterfowl, which is the mission of the U.S. Fish and Wildlife Service.

So, the values are there. They are very high values, and Department of Interior looked at it closely and said, yes, it is very much in our favor to go ahead and make that investment, \$38 million to restore a complete system to its original natural function.

Senator CARPER. Thank you.

Mr. Chairman, let me go back, but if I have a question I would like to ask later on, a very short question of Ms. Swallow.

Senator BARRASSO. No, please go on.

Senator CARPER. I was sitting next to Tom Udall in a meeting earlier today, and I am sure he would want to convey his warmest regards and his thanks for all the help you provided when you were a member of his staff.

Ms. Swallow, do you believe that the Corps' current budgetary funding is sufficient to accomplish its mission for inland waterways, and how does this bill assist on this front?

Ms. SWALLOW. Thank you for the question, Senator Carper. Is the budget sufficient? No, it is not. We have infrastructure on our inland waterway systems that dates back not just decades, but in some cases, as I mentioned earlier, a century, and that infrastructure is struggling to meet the needs of our Nation.

If we don't fully restore our inland waterway system, we will see the impact of that product, instead of being shipped on the inland waterways, it will hit the rest of our surface transportation system and cost us a lot more not just in terms of the cost for the producers who are trying to get their products to market, but will cost every single American citizen as we buy that product, so we need to find a way to further improve the investment in our inland waterway network.

One of the things that we really like about this bill is that it enables the Corps to charge and collect fees on their facilities that they can then use to leverage the WIFIA program. We will not attract private investment unless they know that they can see a return on their investment, so that is one of the steps that we are excited to see in this bill, is it allows the Corps to start collecting and retaining fees for operations and maintenance.

We, of course, like that the bill is reauthorizing WIFIA and the dam and levee safety programs as well.

Senator CARPER. Thanks.

When we say dam safety program, I always think is that with the "n".

[Laughter.]

Senator CARPER. We will note here for the record today it is just d-a-m.

This has been great. Mr. Chairman, thank you again for pulling this all together and for our witnesses that are here from Delaware and other places far and wide.

Again, I just want to say to our staffs, deeply grateful for the great work that is being done not in the light of day so much, certainly not here under these lights, but very good work is being done, and we know we have a lot more that needs to be done, so we look forward to that journey. Thanks so much.

Senator BARRASSO. Well, thank you very much, Senator Carper. You were kind enough to mention so many of the staff. I think Richard's name was left out, so, Richard, we apologize, but are grateful for your great work.

Senator CARPER. I would like to say something about Richard.

[Laughter.]

Senator BARRASSO. If there are no more questions, members may submit follow up questions for the record, so the hearing record is going to be open for 2 weeks.

I want to thank all of the witnesses. Thanks so much for your insight, for your time, for your testimony.

Senator Carper.

Senator CARPER. Just an observation. I mentioned earlier that Secretary Bullock was once my chief of staff when I was Governor, and later for a while as a United States Senator, and he was succeeded as chief of staff by Jonathan Jones, who is sitting immediately behind him. And immediately behind Jonathan Jones is a fellow who looks very much like Alan Hoffman, who used to be chief of staff to Joe Biden as Senator and as Vice President. I don't know who the rest of you are.

[Laughter.]

Senator BARRASSO. Would people like to stand and introduce themselves? We can work our way through the crowd.

Senator CARPER. This is one heck of a Delaware lineup right here. Thank you.

Senator BARRASSO. Thank you, Senator Carper.

Thanks to each and every one of you who have attended, as well as those who have participated by testifying.

With that, the hearing is adjourned.

[Whereupon, at 11:45 a.m. the Committee was adjourned.]

[Additional material submitted for the record follows:]



Kevin L. Shafer, P.E.
Executive Director

January 29, 2018

United States Senator Tammy Baldwin
709 Hart Senate Office Building
Washington, DC 20510

Re: MMSD's Strong Support of the SRF WIN Act – Cosponsor Request

Dear Senator Baldwin:

The Milwaukee Metropolitan Sewerage District (MMSD) is pleased to join the nation's leading construction, labor, municipal wastewater, and engineering organization's in strongly endorsing the "Securing Required Funding for Water Infrastructure Now Act" (SRF WIN Act) being advanced by Senator Boozman and Senator Booker. This bipartisan legislation builds on the established success of the Clean Water Act and Safe Drinking Water Act State Revolving Funds (SRFs) and the innovative financing in the WIFIA Pilot program to make available over \$50 billion in new Federal funding for the SRF. The SRF WIN Act has the potential to provide millions of dollars in additional Federal funding for water infrastructure and water quality improvements in Milwaukee, and your co-sponsorship of this bipartisan water infrastructure funding legislation would be greatly appreciated.

I have attached for your review a list of the national organizations strongly supporting the SRF WIN Act, a letter of strong support sent by the Council of Infrastructure Financing Authorities (CIFA) – the organization representing the State Financing Authorities, and a recent EPA Memo noting the ability to utilize SRF Funds to replace lead drinking water service lines. The SRF WIN Act will benefit Milwaukee and communities across Wisconsin.

Your longstanding commitment to increased investment in our nation's water infrastructure is greatly appreciated. Please contact me with any questions regarding the SRF WIN Act or its importance to Milwaukee. Thank you for your thoughtful consideration of cosponsoring the bipartisan SRF WIN Act.

Sincerely,

Kevin L. Shafer, P.E.
Executive Director



milwaukee metropolitan sewerage district
260 W. Seeboth Street, Milwaukee, WI 53204-1446
414-225-2088 • email: KShafer@mmsd.com • www.mmsd.com

Executive Director
Thomas W. Sigmund, P.E.
Commissioners
Kathryn Koppelman, President
Jonas Reinisch, Secretary
Thomas P. Alpert, Vice President
Mark D. Runkach, Vice President
Lee D. Mulligan, Vice President



January 30, 2018

United States Senator Tammy Baldwin
709 Hart Senate Office Building
Washington, DC 20510

Re: The SRF WIN Act – NEW Water Cosponsor Request

Dear Senator Baldwin:

NEW Water, the brand of the Green Bay Metropolitan Sewerage District, is committed to improving our region's water quality and is a strong supporter of the bipartisan "Securing Required Funding for Water Infrastructure Now Act" (SRF WIN Act) being advanced by Senator Boozman, Senator Booker, Senator Feinstein, and Senator Inhofe. This bipartisan SRF WIN Act makes available over \$50 Billion in new Federal funding for the Clean Water Act and Safe Drinking Water Act State Revolving Funds. NEW Water believes this landmark legislation will provide tens of millions of dollars in additional SRF funding for water quality improvement projects in and around Green Bay. NEW Water respectfully requests your cosponsorship of the SRF WIN Act.

The nation's leading municipal wastewater, drinking water, engineering, contracting, conservation and labor organizations have registered their strong support for the SRF WIN Act. Please find enclosed a list of the national organizations strongly supporting the SRF WIN Act and letters of strong support for the SRF WIN Act sent by the Council of Infrastructure Financing Authorities (CIFA) and the Water Infrastructure Network (WIN). NEW Water believes the SRF WIN Act will ultimately provide funding for hundreds of water infrastructure projects in Wisconsin including our work to reduce phosphorus discharges into Green Bay.

Investment in our nation's clean water makes eminent economic and environmental sense and we are grateful for the leadership role that you have played in securing federal funding for our state's water infrastructure. Thank you for your thoughtful consideration of the bipartisan SRF WIN Act.

Sincerely,

**GREEN BAY METROPOLITAN
SEWERAGE DISTRICT**

Thomas W. Sigmund, P.E.
Executive Director

Enclosure

SRF WIN Act Supporters

- American Council of Engineering Companies – ACEC
- American Society of Civil Engineers – ASCE
- American Public Works Association – APWA
- Associated General Contractors of America – AGC
- Ducks Unlimited – DU
- Hydraulic Institute – HI
- International Union of Operating Engineers – IUOP
- Laborers International Union of North America – LIUNA
- Milwaukee Metropolitan Sewerage District – MMSD
- National Association of Clean Water Agencies – NACWA
- National Rural Water Association – NRWA
- Rural Community Assistance Partnership – RCAP
- United Association of Plumbers and Pipefitters – The United
- Vinyl Institute – VI
- Water Infrastructure Network – WIN
- Water Systems Council – WSC

