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MEETING AMERICA'S WASTEWATER INFRASTRUCTURE NEEDS IN THE 21ST CENTURY

HEARING

BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION SAFETY, INFRUSTRUCTURE SECURITY, AND WATER QUALITY

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

September 19, 2007

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[1]Note: During the 110th Congress, Senator Craig Thomas, of Wyoming, passed away on June 4, 2007. Senator John Barrasso, of Wyoming, joined the committee on July 10, 2007.

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MEETING AMERICA'S WASTEWATER INFRASTRUCTURE NEEDS IN THE 21ST CENTURY

WEDNESDAY, SEPTEMBER 19, 2007

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION SAFETY,
INFRASTRUCTURE SECURITY, AND WATER QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Building, Hon. Frank Lautenberg (chairman of the subcommittee) presiding.

Present: Senators Lautenberg, Inhofe, Warner, Voinovich, Vitter, Cardin.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Good morning. We call this subcommittee hearing to order. As I took the chair here, I went for this pitcher into the glass in an area where it is recommended, often, that you don't drink the water, and I wonder whether this is just a reality check to see whether or not I will survive the hearing. But the fact of the matter is that there are signs in this great city of ours that we see periodically because of failures of the system that the water production system and other problems involved with inability for the wastewater treatment plants to turn out water that doesn't pollute the Potomac and other major water sources.

I want to welcome everybody to today's hearing on the need to modernize our sewage treatment systems, stormwater systems to keep wastewater out of our rivers, streams, and oceans.

In 1972, we established the Clean Water Act that would help us keep our waterways safe and clean. Now, part of the Clean Water Act helps us to build new sewage treatment plants. The first thing that we did, the first means of funding them was through grants. But since 1987, we use loans through the State Revolving Fund or SRF. The SRF funds have provided $25 billion for States to improve their infrastructure, clean their water so that people can use it recreationally and for other purposes as well.

The current funding levels, however, for the State Revolving Fund falls far short of what we need. Much of the infrastructure, including pipes and treatment plants, is simply worn out or inadequate in its size, overwhelmed often by too much water.

I am pleased to see the Ranking Member on this committee, our friend from Oklahoma, Senator Inhofe. As I think about the things

that we are going to consider today, Senator, am I correct in remembering that Oklahoma has had unusually heavy rainfalls?

Senator INHOFE. Yes, that is correct.

Senator LAUTENBERG. Because part of the problem is the deluge that we see frequently in different parts of the country. That too overwhelms our system, in addition to the normal growth that we have through development.

EPA estimates that there is somewhere between 23,000 and 75,000 sanitary sewer overflows each year. Those spills dump billions of gallons of untreated sewage into our rivers, our lakes, and coastal waters. In addition, combined sewer overflow spill is 850 billion gallons of contaminated stormwater into our waterways each year, and EPA estimates that it will take $170 billion over the next 20 years to fix these sewer systems. But instead of making this important investment, the Administration has proposed a nearly $400 million cut in the SRF for 2008.

Now, without more investment, more people will be exposed to sickness and disease, beaches will close and marine life certainly will suffer. President Bush needs to fully fund the SRF and we have to reauthorize it so that money is available to cities and towns to keep their water clean. In addition to increased funding our subcommittee will examine how best to spend those funds, including what role green infrastructure can play in reducing the burdens on our sewer systems.

I would also note that in addition to our mission to reauthorize the SRF, Senator Voinovich and I have introduced the Water Quality Investment Act. This bill would authorize $1.8 billion in Federal grants to local communities to clean up combined sewer and sanitary sewer overflows.

We look forward to the testimony from our witnesses, but now we ask our colleague, Senator Inhofe, for his statement.

[The prepared statement of Senator Lautenberg follows:]

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Let me welcome everyone to today's hearing on the need to modernize our pipes and sewer systems to keep waste out of our rivers, streams and oceans.

Since 1972, we have relied on the Clean Water Act to keep our waterways safe and clean. Part of the Clean Water Act helps us build new sewage treatment plants. First we used grants to pay for them. Since 1987, we have used loans through the State Revolving Fund, or "SRF."

The SRF has provided $25 billion for States to improve their infrastructure and clean their water so people can swim, fish and boat in it. But the current funding level for the SRF falls far short of what we need. Much of the infrastructure, such as pipes and treatment plants, is simply worn out—or overwhelmed by too much water.

EPA estimates that there are between 23,000 and 75,000 sanitary sewer overflows each year. Those spills dump between 3 and 10 billion gallons of untreated sewage into our rivers, lakes and coastal waters. In addition, Combined Sewer Overflows spill 850 billion gallons of contaminated stormwater into our waterways each year. EPA estimates it will take $170 billion over the next 20 years to fix these sewer systems. But instead of making this important investment, the Administration proposed a nearly four hundred million dollar cut to the SRF for 2008. This is irresponsible. Without more investment, people will get sick, beaches will close, and our marine-life will suffer. President Bush needs to fully fund the SRF, and we must reauthorize it so that money is available to cities and towns to keep their water clean. The federal government's role in repairing our aging pipes, pumps and treatment plants must grow.

In addition to increased funding, our Subcommittee will examine how best to spend those funds, including what role "green infrastructure" can play in reducing the burdens on our sewer systems. I would also note that in addition to our mission to reauthorize the SRF, Senator Voinovich and I have introduced the Water Quality Investment Act. This bill would authorize $1.8 billion in federal grants to local communities to clean up Combined Sewer and Sanitary Sewer Overflows. I welcome any testimony from our witnesses on that legislation as well.

There is nothing partisan about keeping our waterways safe and clean, and I hope our Subcommittee will act soon to strengthen our clean water programs.

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

Senator INHOFE. Thank you, Senator Lautenberg, Mr. Chairman. First of all, I would like to thank you for having this long-overdue hearing. As Chairman of this committee during the past two Congresses, I have twice moved comprehensive legislation to reauthorize both the Clean Water and the Drinking Water State Revolving Loan Funds. I am pleased to see that this issue remains a committee priority.

This will come as a shock to many of you out there, but Senator Lautenberg and I don't always see eye to eye on issues. On this one I think we do. We recognize——

Senator LAUTENBERG. I remember one 16 years ago.

Senator INHOFE. That is right. That is right.

[Laughter.]

Senator INHOFE. It is back.

But I am glad also to welcome Mr. Joe Freeman. He is chief of the Financial Assistance Division from the State of Oklahoma. I welcome you to being here for this important hearing. Mr. Freeman has been a great resource to my staff, and I welcome his insights into how the program is currently working and what we may do to make it work better.

I am also pleased that the National Rural Water Association, based in Oklahoma, is represented today by the Louisiana chapter. I welcome you here. The majority of the Nation's wastewater systems are small systems, and theirs is a perspective from which we can all benefit hearing.

The Clean Water SRF is the cornerstone of Federal clean water systems to the Nation's cities and towns. Since its creation in 1987, the Clean Water SRF has saved its borrowers over $3.7 billion in interest, costs, and also provide $8.2 billion in funding to improve the Nation's water quality. Importantly, the Federal Government has provided $24 billion in State capitalization grants. In 2006, there was more than $60 million available for loans to communities.

Today's hearing is limited to wastewater or clean water needs. Oklahoma has projected $586 million in clean water related needs over the next 20 years. As one of today's witnesses mentions, this figure does not include any future costs due to new regulations. Further, in the last drinking water survey, Oklahoma's reported needs were $4.8 billion over the next 20 years. Importantly, $107 million of that need is known to be a direct result of Federal drinking water requirements. Without providing sufficient Federal funds to help cities to meet those requirements, they become not just requirements, but Federal unfunded mandates.

I have to say this, with the arrival of Senator Voinovich. He and I were both, Mr. Chairman, mayors of major cities. People talk about problems facing the cities. It is not prostitution and crime, the greatest problem, I think he would agree with me, are unfunded Federal mandates. This is what we are committed to correcting, and a lot of it comes from the legislation that we are talking about right now.

My staff has received assurances that the absence of drinking water from this hearing will not preclude us from reauthorizing the drinking water SRF program. I look forward to working with my colleagues to develop a clean, comprehensive funding proposal.

The effort that we are about to undertake will be the fourth time in four Congresses that we have attempted to move a water infrastructure bill. Only one of our previous three attempts at passing a water infrastructure bill was bipartisan. I hope that this year we can again have a bipartisan bill, as we did last Congress under my leadership, and that we can work together to move it to the Senate floor. To do that, we must avoid many of the mistakes of previous efforts.

The bill must be clean of too many additional requirements on applicants. We are not providing grants through the current SRF; these are loans to be repaid by municipalities, and they are. In order to truly provide them with Federal assistance in meeting their regulatory obligations under the Federal environmental statutes, we have to provide loans with as few strings attached as possible. There are legislative proposals pending that include additional requirements for States and localities to meet, and while I am sure someone can find value in almost all of these requirements, I am concerned their cumulative impact may be to create a program far too burdensome for anyone to use.

Additionally, in previous attempts, even last year, we failed to come to a unified committee resolution to the issue of Davis-Bacon. Failing to do so again will likely result in yet another stalemate. I must again, as I have in the past, encourage all parties to come to the table to find a path forward that keeps the committee united behind a single bill.

This is an important issue. While some may disagree over the exact amount of the funding gap, there can be no denying that it exists. The question before the committee is what, if any, changes do we need to make to the Federal clean water program to ensure it is best meeting the needs of our local communities and lessening that gap.

As the single-most conservative member of the U.S. Senate, as voted by the American Conservative Union, I have consistently voted for developing and improving the Nation's infrastructure and providing for our Nation's defense. I think that is what Government is supposed to be doing, Mr. Chairman. I look forward to this hearing and to working with my colleagues to develop a comprehensive funding program, and I thank you again, Senator Lautenberg, for calling this hearing.

[The prepared statement of Senator Inhofe follows:]

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

I would like to thank Senator Lautenberg for having this long overdue hearing. As Chairman of this Committee during the past two Congresses, I twice moved comprehensive legislation that reauthorized both the clean water and drinking water state revolving loan funds. I am pleased to see this issue remains a Committee priority.

I am glad to welcome Mr. Joe Freeman, Chief of the Financial Assistance Division for the State of Oklahoma. Mr. Freeman has been a great resource to my staff and I welcome his insights into how the program is currently working and what we may do to make it better. I am also pleased that the National Rural Water Association, based in Oklahoma, is represented today by the Louisiana chapter. The majority of the Nation's wastewater systems are small systems and theirs is a perspective from which we can all benefit hearing.

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Additionally, in previous attempts, even last year, we failed to come to a unified committee resolution to the issue of Davis-Bacon. Failing to do so again will likely result in yet another stalemate. I must again, as I have in the past, encourage all parties to come to the table to find a path forward that keeps the Committee united behind a single bill.

This is an important issue. While some may disagree over the exact amount of the funding gap, there can be no denying that it exists. The question before the Committee is, what if any changes do we need to make to the Federal clean water program to ensure it is best meeting the needs of our local communities and lessening that gap? As the single most conservative member of the Senate, as voted by the American Conservative Union, I have consistently advocated for developing and improving the Nation's infrastructure and providing for our Nation's defense. I look forward to this hearing and to working with my colleagues to develop a comprehensive funding proposal. Thank you again to Senator Lautenberg for holding this hearing.

Senator LAUTENBERG. Thank you.

Senator Voinovich, we welcome you and ask you for your statement at this time.

OPENING STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Senator VOINOVICH. Thank you, Senator Lautenberg and Senator Vitter. Thank you for holding this hearing on wastewater infrastructure.

Water infrastructure has been a longstanding concern of mine. In fact, my first bill that I introduced as a young legislator in the 1960's was a $375 million State bond issue to get the State involved with wastewater treatment. I think it is clear that we are facing an environmental and public health crisis in this country when it comes to water infrastructure, and I am very pleased that this subcommittee has made it a priority by holding this hearing.

In addition, I would like to thank the witnesses for being here today. As a former Governor and mayor, I respect and know firsthand the enormous challenges you have in addressing the issues in your cities and States.

As many of my colleagues know, the Clean Water SRF program is an effective and immensely popular source of funding for wastewater collection and treatment projects. Billions of dollars have already been spent and billions more are needed to upgrade this Nation's aging wastewater infrastructure. I firmly believe the Federal Government is responsible for paying its fair share. That is why I was very disappointed that the EPA's 2008 budget proposed severe spending cuts for the Clean Water SRF program. I hope the increased funding levels in both the Senate, $1.1 billion, and the House, $887 million, Fiscal Year 2008 interior appropriation bills for the program will remedy that situation.

As in many States, Ohio's needs for public wastewater system improvements greatly exceed the typical Clean Water SRF funding levels.

Mr. Chairman, when we really did something about wastewater was back when the Feds picked up 75 and the locals picked up 25. That is when we really moved from primary down to tertiary treatment.

According to the Ohio EPA, Ohio's capital investment needs for publicly owned wastewater treatment facilities are $12.9 billion. Of that amount, almost $6.3 billion of improvements have been identified as necessary to address combined sewer overflow problems in over 100 communities. The city of Akron, for example, has proposed to spend $426 million over 30 years to fix the city's CSO problems. Of course, they can't do it over 30 years because the EPA tells them they have to do it in 15 years.

That is why I am an original cosponsor of Senator Lautenberg's bill, the Water Quality Investment Act, which would authorize nearly $2 billion in Federal grants to fund the repair and replacement of combined sewer overflows and sanitary sewer overflows. In 2002 and 2004, the EPW Committee adopted my amendments to authorize funding for this program as part of the Clean Water and Safe Drinking Water reauthorization legislation. I look forward to working on this issue once again with you, Senator Lautenberg, to see if we can make something happen.

I am also concerned about the impacts of the funding needs for water infrastructure in our rural communities. In Ohio, many of these communities are in Appalachia. Data from the EPA survey

shows that 47 percent of our Appalachian households nationwide are not served by public sewers. For many communities, this lack of service is forcing residents to haul water from springs or rain barrels. A 2003 Appalachian Regional Commission water and wastewater needs study reported that counties with higher densities of septic tanks received less public funding than counties with lower densities of septic systems.

I am concerned that these communities are not receiving funding because the SRF process is too cumbersome. I am anxious to hear from our witnesses today on how Congress can address this problem for our rural communities as we consider reauthorization for the Clean Water SRF.

It expired at the end of Fiscal Year 1994 think of that, 1994 and the failure of Congress to reauthorize the program sends an implicit message that wastewater collection and treatment is not a national priority. The longer we wait to reauthorize this program, the longer it creates uncertainty about the program's future in the eyes of borrowers. It could delay or, in some cases, prevent project financing. In order to allow any kind of substantial increase in spending, reauthorization of the Clean Water SRF program is necessary.

I am particularly interested in hearing all of the thoughts of our witnesses on the Clean Water SRF program's benefits and limitations as it currently stands. I would also like to know what you believe we in Congress can do to change the reauthorization to make the program more beneficial to our Nation's cities and States, and, again, I thank you for being here.

[The prepared statement of Senator Voinovich follows:]

STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Senator Lautenberg and Senator Vitter, thank you for holding this hearing on the wastewater infrastructure. Water infrastructure has been a long-standing concern of mine. In fact, my first bill that I introduced as a young state legislator in the 1960s was a $375 million state bond issue to get the state involved with wastewater treatment. I think it is clear that we are facing an environmental and public health crisis in this country when it comes to water infrastructure, and I am very pleased that this subcommittee has made it a priority by holding this hearing.

In addition, I would like to thank the witnesses for being here today. As a former Governor and Mayor, I respect and know firsthand the enormous challenges you have in addressing this issue in your cities and states.

As many of my colleagues know, the Clean Water SRF Program is an effective and immensely popular source of funding for wastewater collection and treatment projects. Billions of dollars have already been spent and billions more are needed to upgrade the nation's aging wastewater infrastructure. I firmly believe the federal government is responsible for paying its fair share.

That is why I was very disappointed that EPA's 2008 budget proposed severe spending cuts for the Clean Water SRF Program. I hope the increased funding levels in both the Senate ($1.1 billion) and House ($887 million) Fiscal Year 2008 Interior Appropriations bills for the SRF program subsist.

As in many states, Ohio has needs for public wastewater system improvements which greatly exceed the typical Clean Water SRF funding levels. According to Ohio EPA, Ohio's capital investment needs for publicly owned wastewater treatment facilities are $12.9 billion. Of that amount, almost $6.3 billion of improvements have been identified as necessary to address combined sewer overflow (CSO) problems in over 100 communities. The City of Akron, for example, has proposed to spend $426 million over 30 years to fix the City's CSO problems.

That is why I'm an original co-sponsor of Senator Lautenberg's bill—the Water Quality Investment Act, which would authorize nearly $2 billion in federal grants to fund the repair and replacement of combined sewer overflows and sanitary sewer

overflows. In 2002 and 2004, the EPW Committee adopted my amendments to authorize funding for this program as part of the Clean Water and Safe Drinking Water SRF reauthorization legislation. I look forward to working on this issue once again with Senator Lautenberg to help communities tackle sewer overflows.

I am also concerned about the impacts of the funding needs for water infrastructure in our rural communities. In Ohio, many of these communities are in the Appalachia. Data from EPA surveys show that 47 percent of Appalachian households nationwide are not served by a public sewer. For many communities, this lack of service is forcing residents to haul water from springs or rain barrels. A 2003 Appalachian Regional Commission (ARC) water and wastewater needs study reported that counties with higher densities of septic systems received less public funding than counties with lower densities of septic systems.

I am concerned that these communities are not receiving funding because the SRF process is too cumbersome. I am anxious to hear from our witnesses today on how Congress can address this problem for our rural communities as we consider reauthorization for the Clean Water SRF.

Authorization for the Clean Water SRF expired at the end of fiscal year 1994, and the failure of Congress to reauthorize the program sends an implicit message that wastewater collection and treatment is not a national priority. The longer we wait to reauthorize this program, the longer it creates uncertainty about the program's future in the eyes of borrowers, which could delay or in some cases prevent project financing. In order to allow any kind of substantial increase in spending, reauthorization of the Clean Water SRF program is necessary.

I am particularly interested in hearing all of your thoughts on the Clean Water SRF program's benefits and limitations as it currently stands. I would also like to know what you believe we in Congress can change during reauthorization to make the program more beneficial to our nation's cities and states. Again, I want to thank you all for attending this hearing.

Senator LAUTENBERG. Thank you very much.

OPENING STATEMENT OF HON. DAVID VITTER, U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator VITTER. Thank you, Mr. Chairman, for calling this hearing. It is really important.

As everyone has said, our Nation's wastewater infrastructure is aging. Most of the system's infrastructure has been around for 50 to 100 years. It is deteriorating, in need of replacement, rehabilitation, so it is very important that we set this as a priority to bring that infrastructure in to the 21st century.

Representing Louisiana, I certainly know this. In large parts of our State, our infrastructure is over double that age. A city like New Orleans, the infrastructure is way older than 50 to 100 years. We have clay pipes and the deterioration is even more significant. That is not just in New Orleans, it is around the State.

Then, on top of that, with our experience 2 years ago of Hurricanes Katrina and Rita, that destroyed a lot of the infrastructure and further aged, in 1 day, a lot of the infrastructure. So folks living in those areas really know the strain of this decaying infrastructure.

I want to welcome all of our witnesses today, certainly Ben Grumbles with EPA. Thank you for being here, Ben. The entire second panel.

Of particular note for me, we have Mayor Glenn Brasseaux of the city of Carencro. Mayor, welcome to you. Thank you for being here and taking time to come to be part of this important hearing. Of course, he will talk about wastewater infrastructure, but in particular from the perspective of small communities and also as a board member of the Louisiana Rural Water Association.

Again, I agree with my colleagues, the State Revolving Fund is very important in this, and we need to figure out how we can make it even more effective. So I will be very interested in hearing all of the witnesses' testimony about that.

To oversimplify, it seems to me we need to focus on two big categories. One is there is enormous demand, so I think we need to have more funding to meet that demand. In addition, I think, over the last 20 years in particular, we have created so much complexity in the system that a dollar goes not nearly as long as it used to go, and we need to step back and figure out how we reduce that burden and that complexity so that as we hopefully increase the dollars, they are able to go a lot further, which they certainly did 20 years ago, to help bridge that gap. I look forward to everyone's ideas with regard to both of those categories.

Thank you again, Mr. Chairman.

Senator LAUTENBERG. Thank you, Senator Vitter. Senator Vitter is the Ranking Member on this subcommittee and we look forward to working together to get many things moving that have been too long delayed.

I want to now welcome to the witness table Ben Grumbles, Assistant Administrator of Water from EPA. We look forward to hearing the Agency's views on this important issue, and I thank you for joining us, Mr. Grumbles.

STATEMENT OF HON. BENJAMIN H. GRUMBLES, ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. GRUMBLES. Thank you, Mr. Chairman and members of the committee. It is a real honor to be before you representing the U.S. EPA.

I hope you will listen to my words, but I trust that you will be looking behind me, because what you see are the faces of the clean water campaign across America, the local elected officials, the advocates of various organizations who are all rallying behind something that we all share and I think we all hold in common, and that is working together to change the way America views and values water and the water infrastructure system that supports it. The 1.5 million miles of sewer lines, the 16,000 treatment plants are all part of the lifelines to the communities' environmental and economic health of America, so I am very proud to be here.

EPA is very proud of the role we have played with our partners to develop innovative, sustainable approaches to meeting the very large array of needs for clean and safe water across the country. October 18 marks the 35th anniversary of the Clean Water Act, so it is particularly timely and appropriate to have this hearing focusing on one of the greatest challenges.

Administrator Stephen Johnson has articulated to everyone in the Agency and, just as importantly, to the many partners at the State, tribal, and local level, and in the private sector that one of his top priorities is to develop innovative and sustainable and market-based solutions for water infrastructure financing and management.

What I am going to say in the brief amount of time I have is I want to focus in on the three waves of water infrastructure financ-

ing over the years and what EPA is doing to usher in that third wave of innovative, sustainable, and market-based approaches.

The first wave, as you know better than anyone, was the construction grants era, where there were direct grants to cities. As Senator Voinovich mentioned, it is undisputable that has led to tremendous, enormous progress in cleaning up the Nation's waterways.

The Nation evolved into a State Revolving Fund model in the 1987 amendments, and that is the second wave. Greater sustainability. We embraced the original intent of Congress at the time, and that was to move toward true sustainability, after Federal capitalization grants, to get all of those funds up and running. It is a tremendous, remarkable success story of the State Revolving Fund model. It is one that we share with countries around the world. It is one that we are fully committed to in the sense of providing capitalization grants as we have, living up to the President's commitment to provide $6.8 billion in continued capitalization grants through 2011 and working hard and working in a collaborative way to help States and local fund managers see those funds truly evolve and be sustainable.

The third wave is the more innovative and sustainable approach, and it is represented by several things. One is the four pillars of sustainability that the Agency has been advocating and acting on over the last several years, which I will describe, and another one is in the President's budget request these new Water Enterprise Bonds. We need congressional help to amend the tax code to remove the State volume caps on water and wastewater Private Activity Bonds. But we are also pursuing other aspects of true sustainability.

So this third wave, the first part of it is focusing on the demand side, as Senator Vitter mentioned, and that is the four pillars of sustainability, and the first and most important, in many respects, is asset management. In May of this year, EPA signed a watershed agreement, a national agreement with water and wastewater agencies, national organizations, to all work to improve management of water infrastructure systems to know those critical assets, these buried assets, if you will, for many of them that are underground pipes, to inventory them and to have a more sustainable management approach to reduce the leaks and the overflows and to increase the productivity of those systems.

The second is full cost pricing. It is so hard to explain how cheap water is in so many respects compared to the value of the service that is being provided. EPA is not going to set the prices and we are very sensitive to the needs of local communities and, in particular, local elected officials about the rate shock that Senator Voinovich is mentioning when we see big price tags for sewer overflow projects over the years. But we are fully committed, as one of our pillars of sustainability, to providing tools and information about helping communities get the prices right to better reflect the needs, the investments in their community systems. When communities invest in wastewater infrastructure, they are investing in their communities.

Mr. Chairman, I would love to make available to the committee a video that the Local Government Advisory Committee produced.

This is part of FACA for the Administrator of EPA, and it is called Water Infrastructure: Successful Strategies for Local Leadership, and it focuses on in particular on elected local leaders. So, without objection, I would like to provide that to the committee.

Senator LAUTENBERG. Great. Thank you. We will have it available for distribution for the members who would be interested in seeing it.

Mr. GRUMBLES. Thank you, Mr. Chairman.

The other two pillars of sustainability that are really part of this third wave to help reduce demand on our Nation's wastewater infrastructure systems, which is a tremendous demand based on our gap report and the need surveys, is to focus on water efficiency like never before. That is why I would encourage the committee and others in Congress to embrace the WaterSense program, this voluntary public-private partnership of labeling of water-efficient products and appliances to help reduce the demand on infrastructure needs.

The fourth pillar is a watershed approach, and that is where we see——

Senator LAUTENBERG. Can I ask you?

[inaudible]——

Mr. GRUMBLES. Mr. Chairman, green infrastructure is a very important part of that. That, coupled with the Water Enterprise Bonds, which we believe will bring in $5 billion to $6 billion in new funds in partnership with the private sector, is an important way to proceed for meeting America's wastewater infrastructure needs.

Thank you.

[The prepared statement of Mr. Grumbles follows:]

STATEMENT OF BENJAMIN H. GRUMBLES, ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. Chairman and Members of the Committee, I am Benjamin H. Grumbles, Assistant Administrator for Water at United States Environmental Protection Agency (EPA), and I am grateful for the opportunity to testify before you today on the nation's water infrastructure needs and the innovative and sustainable solutions the Environmental Protection Agency and its partners are pursuing.

On October 18, America celebrates the 35th Anniversary of the Clean Water Act (CWA), one of the world's most successful and enduring environmental laws. The CWA has dramatically improved water quality through scientific standards, discharge permits, pre-treatment requirements, state and local funding, watershed planning and a wastewater infrastructure system unparalleled in the world.

I am proud of the work EPA is doing and the progress we are making with our Regions, the States, Tribal communities and other partners to implement the vital objectives of this milestone legislation. Today, of the 222.8 million people served by wastewater treatment facilities, more than 98.5 percent (219.5 million people) are served by "secondary treatment" (or better), a technical but important term of art that refers to a biological treatment process designed to remove dissolved organic matter from wastewater. Secondary treatment may remove up to 90 percent of remaining biological matter such as human waste, food waste, soaps and detergent.

More than 281 million people receive drinking water on a daily basis from more than 52,000 community water systems throughout the nation. Advances in wastewater and drinking water treatment constitute major achievements in modern American public health.

Administrator Stephen Johnson identifies the development of innovative, market-based, and sustainable solutions for water infrastructure financing and management as a top priority in his action plan for the Agency.

Over the past 20 years, communities have spent more than $1 trillion (in 2001 dollars) on infrastructure, operations and maintenance for wastewater treatment and disposal and drinking water treatment and supply. But, it may not be enough to keep pace with America's aging infrastructure systems. Many municipal water

distribution pipelines and sewer systems were constructed in the period following World War II with an expected design life of 20–50 years. Deteriorating pipelines can cause releases of water or wastewater that result in environmental contamination and a net loss of water with major economic consequences. In addition, numerous treatment facilities that process water and wastewater are in need of upgrading to meet capacity and water quality requirements associated with protection of public health and the environment. There is critical need for replacing, upgrading, and modernizing these infrastructure systems.

INFRASTRUCTURE NEEDS

With the aging of the nation's infrastructure and the growing investment need, the wastewater industry faces a significant challenge to sustain and advance its achievements in protecting public health and the environment.

In October of 2002, EPA released the Clean Water and Drinking Water Gap Analysis Report. The report estimated that if capital investments remained at current levels, the potential gap between spending and needs between 2000 and 2019 would be approximately $122 billion (in 2001 dollars) for wastewater infrastructure and $102 billion (in 2001 dollars) for drinking water infrastructure. If revenue grows at 3 percent per year, a projection that is consistent with long-term growth estimates of the economy, the gap is approximately $21 billion (in 2001 dollars) for wastewater infrastructure and $45 billion (in 2001 dollars) for drinking water infrastructure.

The general causes of the infrastructure funding "gap" are not difficult to identify. Much of the projected gap is the product of deferred maintenance, inadequate capital replacement, and a generally aging infrastructure. In addition, populations are increasing and shifting geographically, thus requiring investment in existing or new infrastructure. The Census Bureau projects the population to grow to 325 million by the year 2020 (an increase of more than 15 percent over the 2000 population). Lastly, unlike utilities subject to state regulation such as electric and natural gas service and privately owned water systems, many public utilities in the United States have not historically charged their users the full cost of service.

FEDERAL FINANCING FOR WATER INFRASTRUCTURE

At EPA, we think of water infrastructure financing in waves of progress. If we look back at the innovations of the last generation, the first wave ushered in the historic Clean Water and Safe Drinking Water Acts in the early 1970s in response to the degradation of our waters.

The second wave was another historic moment in transitioning to the State Revolving Funds used to stretch the federal investment. On February 4, 2007 we marked the 20th anniversary of the passage of the Clean Water Act amendments that authorized the Clean Water State Revolving Fund (CWSRF) program. The creation of the CWSRF in 1987 and the Drinking Water State Revolving Fund (DWSRF) in 1996 were major milestones on the path to financial sustainability for our water infrastructure.

With the help of federal capitalization grants, the States provide low interest loans for water infrastructure projects through their individual CWSRFs and DWSRFs. Since loan repayments allow the funds to "revolve" over the long-term, the SRFs provide sustainable sources of financing into the future.

Over the past 19 years, The CWSRF program has played a significant role in helping to finance water infrastructure, a role that will continue over the long-term. Over this time period, EPA has provided approximately $25 billion to help capitalize the state-run programs. In combination with state monies, bond proceeds, and recycled loan repayments, the CWSRFs have been able to "leverage" the Federal investment into $61 billion to fund worthy water infrastructure projects. The newer DWSRF program has accumulated close to $13 billion in its first 10 years of operation. The year 2006 marked an important and notable milestone in the CWSRF: it was the first time that over $5 billion in assistance was provided in any one year.

The success of the SRFs can be attributed in large part to the broad flexibility of the funds and the elimination of overlapping federal and state requirements. The broad flexibility has allowed states to implement the SRFs to fuller advantage. An example of this flexibility is evident in California which, on average, provides over $250 million in water quantity funding annually. In California, the CWSRF's flexibility has allowed the state to undertake its most pressing water quality needs, whether through traditional wastewater treatment projects, or by reducing nonpoint source pollution from agricultural runoff. The choice of achieving nutrient reduction through less-expensive Best Management Practices on farm lands rather than installing highly advanced nutrient removal at publicly owned treatment works can

be a win-win for the environment and for the sustainability of our water infrastructure.

At the same time, elimination of overlapping federal and state requirements has reduced both delay in funding and cost-inefficiencies we see when direct grants are made, as was the case with construction grants and remains the case with Special Appropriations Act projects (earmarks).

EPA is committed to helping our partners sustain progress and increase opportunities for SRFs through financial stewardship, innovation, and collaboration. With a focus on promoting investment in sustainable infrastructure and encouraging greater creativity in project planning and development, we look forward to working with our state and local partners to make the program even more effective. The SRF programs demonstrate the power of partnerships to leverage, innovate, and excel to meet water infrastructure, watershed protection, and community health needs.

The SRFs are now and will continue to be a critical tool for capital financing of our Nation's wastewater infrastructure. But, they are not the only tool. Other aggressive and innovative actions and technologies are crucial to solving the Nation's water infrastructure needs.

WATER ENTERPRISE BONDS

In addition to the successful SRF programs, we believe that other aggressive and innovative financing and management tools are crucial to solving the Nation's water infrastructure needs. These innovations are the upsurge of a third wave—which is bringing in new ideas about sustainability and encouraging greater private sector participation. EPA is helping lead this third wave of water infrastructure financing and investment by proposing an important new tool—Water Enterprise Bonds—to accelerate and increase investment in the nation's water infrastructure. Water Enterprise Bonds will enhance access and flexibility for utilities to issue private activity bonds for public-purpose drinking water and wastewater facilities.

The objectives of this proposal, contained in the President's FY'08 Budget Request, are to accelerate and increase investment in the Nation's water infrastructure and to facilitate development of more sustainable infrastructure projects through innovative market-based approaches. Specifically, the proposal is to amend the Internal Revenue Code to remove the State volume cap on the use of private activity bonds for water and wastewater infrastructure. Providing expanded access to private activity bonds for communities will allow them to finance, build, and manage water facilities using public-private partnerships that deliver the best mix of technology, construction, and operations with the appropriate transfer of risk to their private sector partners. To ensure the long-term financial health and solvency of these drinking water and wastewater systems, communities using these bonds must have demonstrated a process that will move towards full-cost pricing for services within 5 years of issuing the Private Activity Bonds. This will help water systems become self-financing and minimize the need for future subsidies. This proposal, if enacted, would lead to a more robust market offering of new solutions to our water infrastructure investment challenges.

We are also looking aggressively for innovative ways to reduce costs and increase incentives to foster sustainable water infrastructure investment and management. This Nation is increasingly understanding that our goal needs to be not simply spending more on infrastructure, but investing wisely in efficient utilities that focus on life-cycle costs, plan for and find asset management and replacement, and consistently think and act like the enterprises they should be, for example, seeking to create revenue streams out of waste streams.

As part of that effort, we held a milestone conference in March 2007, "Paying for Sustainable Water Infrastructure: Innovations for the 21st Century." This unprecedented forum for idea and actions underscored the urgency of sustaining our water infrastructure. It brought together more than 600 of our nation's best and brightest water experts to discuss, debate, and brainstorm innovative approaches to reducing costs and increasing investment in drinking water and wastewater systems and programs.

We are continuing to expand upon this constructive dialogue with several follow-up meetings with our conference co-sponsors and other stakeholders. In addition, we have converted the conference website into an Innovative Financing Forum" that includes online discussion boards to share ideas, relevant articles, and other information.

EPA'S APPROACH TO SUSTAINING WATER RESOURCES

The Agency has approached the challenge of keeping pace with infrastructure needs of the future by developing a comprehensive strategy built upon what we call

the "Four Pillars of Sustainable Infrastructure"—better management, full cost pricing, water efficiency, and the watershed approach. It is an effort to help ensure that our Nation's water infrastructure is sustained into the future by fundamentally changing the way America views, values, and manages its water Infrastructure. It is a collaborative effort involving drinking water and wastewater utility managers, professional and trade associations, local watershed protection organizations, private sector experts in technology, engineering, and finance, and federal, state, and local officials.

BETTER MANAGEMENT

The Better Management "pillar" involves changing the paradigm for utility management from managing for compliance to managing for sustainability. We are concentrating our efforts on improved performance through state-of-the-art management approaches focused on the entire utility, working with smaller utilities to improve their capacity to comply with regulatory requirements, and providing utilities with information on cost-effective technologies.

On May 8, 2007, EPA signed a groundbreaking utility management partnership agreement with six leading water and wastewater utility organizations to ensure the long-term viability of our Nation's water systems through effective utility management. Through this partnership, we agreed to promote key attributes of effectively managed utilities, encourage broader use of performance measures by utilities to gauge their performance, and identity resources to help utilities manage all of their operations more effectively.

This partnership provides utilities with a common management framework to help them ensure that their operations and infrastructure are sustainable in the future. We are now working in partnership with the signatory organizations to encourage the widespread adoption of the utility attributes and performance measures, along with other sustainable management practices like environmental management systems and asset management across the water sector.

FULL COST PRICING

In many cases, water and wastewater services in this country do not consistently recover (or even calculate) the full cost of service. Over the past year, the Agency has been working with drinking water and wastewater utilities, public utility commissions, academia, and consultants to discuss issues associated with achieving full cost pricing. The challenge is significant, because we must work to help utilities correct market signals that have been distorted by years of subsidies. This past July, the National Association of Regulatory Utility Commissioners responded to our efforts by issuing a resolution calling for economic regulators and public health and environmental regulators to work together to advance attainment of sustainable public health and environmental protection.

Full cost pricing will only be possible and successful in an efficiently structured and managed water and wastewater sector. Activities carried out under the other pillars will help to address inefficiencies in management and operations. We are also working with our industry partners to develop tools and techniques to assist utilities interested in recognizing and recovering the long-term, full cost of providing service. To this end, we will be working to convene training and workshops in 2008 that will help communities find appropriate options for cost allocation and rate design.

WATER EFFICIENCY

Managing water is a growing concern in the United States. Due to increases in both population and per capita water usage, communities across the county are starting to face challenges regarding water supply and water infrastructure. Improved water efficiency reduces the strain on aging water and wastewater systems, makes better use of existing resources, and can delay or even eliminate the need for costly new infrastructure investments. It also diverts less water from rivers, bays, and estuaries, which helps keep the environment healthy. Improved water efficiency also translates into cost and energy savings by reducing the amount of energy used to treat, pump, and heat water.

Under the Water Efficiency "pillar" we are working to foster a national ethic of water efficiency, so that water is valued as a limited resource that should be used wisely. In June 2006, EPA announced WaterSense, an innovative partnership program that helps American consumers and businesses make smart water choices that save money and maintain high environmental standards without compromising performance.

WaterSense features a label that will make it easy to find products and services that save water. In order to ensure product quality and performance, WaterSense labeled products must be third-party certified to meet strict efficiency and performance criteria. To date, WaterSense has signed agreements with over 160 promotional, manufacturer, retailer, and certifying organization partners.

In October 2006, WaterSense began labeling programs that certify irrigation design and installation professionals. Nationwide, landscape water use is estimated to account for nearly one-third of all residential water use, totaling more than 7 billion gallons per day and up to 50 percent of that goes to waste due to factors such as evaporation and runoff caused due to improper system design; these certified professionals can make a big impact. Four irrigation programs qualified for the WaterSense label and over 250 certified irrigation professionals have partnered with the program.

In January 2007, WaterSense issued a final specification for a new generation of high efficiency toilets that use only 1.28 gallons per flush but still perform as well as, or better than, conventional models that use as much as 5.0 gallons per flush. If only 10 percent of the existing 222 million toilets in the United States were replaced with WaterSense labeled toilets the total savings potential is approximately 246 million gallons per day. This equates to more than 89.7 billion gallons each year. Already, seven manufacturers have labeled 64 different HET models. In the coming weeks, WaterSense expects to finalize a specification for high-efficiency bathroom sink faucets and faucet accessories that could potentially save 61 billion gallons annually.

WaterSense is also developing voluntary specifications for water-efficient new homes and is working with building rating systems such as the U.S. Green Buildings Council Leadership in Energy and Environmental Design (LEED) Green Building Rating System to adopt water-efficiency components to their rating systems. Looking ahead, WaterSense will focus on other commercial and residential plumbing products, as well as irrigation system technologies, such as soil moisture sensors and weather-based controllers.

Other important activities under this pillar include implementing a Water Efficiency Leader program to inspire, motivate, and recognize organizations and individuals who are working to improve water efficiency beyond the labeling of products. We are also supporting the formation of a national organization called the Alliance for Water Efficiency (AWE), which initially will establish a water-efficiency information clearinghouse and website. In the future, AWE's activities will expand to work with and complement WaterSense's activities including monitoring national plumbing and appliance standards and codes. One of EPA's newest and most impressive facilities, the Region 8 Headquarters, will save water through the use of high efficiency plumbing fixtures such as waterless urinals and dual-flush toilets. It also has a green roof.

We are also beginning to collaborate with public officials and utility managers to identify strategies and tools for reducing water loss from systems. Making water distribution more efficient will not only save water and reduce costs, but it will save energy and significantly improve sustainability and increase capital available for infrastructure investment.

WATERSHED APPROACH

The goal of this "pillar" is to integrate watershed-based approaches into decision making at the local level so that communities can make the most informed and cost-effective infrastructure decisions that also help to ensure the overall health of the watershed. In many cases, adoption of watershed-based approaches, such as source water protection, "green infrastructure," water quality trading, and watershed permitting, in conjunction with traditional "hard infrastructure" approaches, can help reduce overall infrastructure costs.

EPA will continue to advance the President's vision of "Cooperative Conservation" through grassroots, community-driven efforts to protect local watersheds and waterbodies of natural significance. Last December, we convened a group of drinking water, wastewater, and stormwater utility managers to discuss watershed approaches to utility management. Building off the success of that effort, we asked The National Advisory Council on Environmental Policy and Technology to provide EPA with recommendations on how to advance our efforts in this area. We received initial recommendations from the group in July and they are currently engaged in the second phase of their project.

GREEN INFRASTRUCTURE

The Agent's approach to sustainable infrastructure does not rely solely on the four pillars strategy. In April 2007, EPA Administrator Stephen Johnson signed onto a partnership with four national organizations to promote the use of "green infrastructure" to lessen sewer overflows and runoff after storms. A primary goal of this new partnership is to reduce stormwater runoff volumes.

Green infrastructure represents a new approach to stormwater management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure techniques utilize natural systems, or engineered systems that mimic natural landscapes, to capture, cleanse and reduce stormwater runoff using plants, soils and microbes.

On the regional scale, green infrastructure consists of the interconnected network of open spaces and natural areas (such as forested areas, floodplains and wetlands) that improve water quality while providing recreational opportunities and wildlife habitat. On the local scale, green infrastructure consists of site-specific management practices (such as rain gardens, porous pavements, and green roofs) that are designed to maintain natural hydrologic functions by absorbing and infiltrating precipitation where it falls.

EPA and the Federal Highway Administration have teamed up to engage a variety of public and private partners in creating a national model for green infrastructure and sustainable transportation—the Green Highways Partnership. The Partnership, with its growing network of diverse partners, is a model for promoting sustainable infrastructure and environmental protection through low-cost and low-impact solutions such as: permeable materials and state of the art technologies that cost-effectively reduce or eliminate stormwater flows and pollutants; construction with recycled materials; and integration of planning, practices and incentives to protect critical habitats, waterways, and ecosystems.

The Green Highways Partnership is actively benchmarking, developing and demonstrating these approaches and actions throughout the Mid-Atlantic. We are planning to share the lessons learned and innovative technologies from these studies and projects. The outcome of these efforts is sustainable transportation infrastructure that is "beyond compliance" and leaves the environment and communities "better than before."

RESEARCH

The Agency's Office of Research and Development received nearly $7 million this year for a new research program to generate the science and engineering to improve and evaluate promising innovative technologies and techniques to reduce the cost and improve the effectiveness of operation, maintenance, and replacement of aging and failing drinking water and wastewater treatment and conveyance systems.

The initial focus of the program will be on "underground" infrastructure—America's "buried assets" that provide a foundation for environmental protection and economic growth. The initial plan primarily identifies research, demonstration and technology transfer activities for wastewater collection systems and drinking water distribution systems. Products will be provided to drinking water and wastewater utilities to help them adopt and implement new and innovative technologies and methods for cost-effectively operating, managing, rehabilitating and extending the life of their systems.

WATER SECURITY

The security of our water and wastewater infrastructure continues to be an important priority for the EPA and the National Water Program. EPA has worked hard to ensure that drinking water systems fulfill their obligations under the Bioterrorism Act. We have also provided voluntary guidance and training to wastewater utilities on how to conduct vulnerability assessments, prepare emergency response plans, and address threats from terrorist attacks. To be sustainable, water and wastewater systems must be secure. We are working with the Department of Homeland Security to advance efforts on a variety of fronts.

CLIMATE CHANGE

EPA and its partners are learning more and doing more to confront another serious challenge for our water resources—climate change. Increasingly, we understand climate change may have impacts on water infrastructure and watersheds that will affect our actions under the Clean Water Act, Safe Drinking Water Act, and various ocean and coastal laws.

While there remains some uncertainty on the scope, timing and potential regional impacts of climate change related effects, EPA and its partners are taking prudent steps now to assess emerging information, evaluate potential impacts of climate change on water programs, and identify appropriate response actions. The National Water Program recently established an intra-agency Climate Change Workgroup, made up of senior managers from EPA headquarters and regional water offices. The Water Program Climate Change Workgroup is working to improve understanding of climate change impacts on water resources and is finalizing a Climate Change Strategy for the National Water Program.

CONCLUSION

Taken together, all of these initiatives, innovative tools, and funding resources will help EPA and its partners continue to build on the gains in water quality that we have worked so hard for and enjoyed over the past 35 years.

As the Committee continues to study water infrastructure needs, the Administration would like to encourage a constructive dialogue on the appropriate role of the federal government in addressing these needs and on innovative new tools such as Water Enterprise Bonds. Mr. Chairman, I look forward to working with you and your colleagues and answering any questions you may have.

RESPONSES BY BENJAMIN H. GRUMBLES TO ADDITIONAL QUESTIONS FROM SENATOR LAUTENBERG

Question 1. When will the 2004 Clean Watersheds Needs Survey be released? What is the current status of the Needs Survey? Is it under review at the Office of Management and Budget? If so, how long has it been under review? If it is not under review, please describe where it is in the process, and EPA believes remains to be done before it can be released.

Response. We anticipate that the 2004 Clean Watersheds Needs Survey will be released shortly. It is currently undergoing final review at the Office of Management and Budget (OMB).

Question 2. I understand the National Water Quality Inventory report was cleared for release by the Office of Management and Budget (OMB) last spring. Why has this report not been released? When will it be released? Please provide the Committee with all versions of the report that EPA submitted to OMB and any changes to the report recommended by OMB.

Response. The National Water Quality Inventory Report to Congress for the 2002 Reporting Cycle was released by EPA on October 11, 2007. It was undergoing EPA's final clearance and approval process during the interval between its approval by OMB and its final release to Congress. The final draft is available on-line at *http://www.epa.gov/305b/2002report*.

RESPONSES BY BENJAMIN H. GRUMBLES TO ADDITIONAL QUESTIONS FROM SENATOR CARDIN

Question 1. EPA's ENERGY STAR Program has proven effective as a tool in reducing energy usage in America. Do you envision a similar program for WaterSense? If so, can you give us examples of the savings that can be realized as well as the marketing plans EPA has to realize the full potential of this effort?

Response. Launched in June 2006, EPA's WaterSense program was designed to reduce water use across the country by creating an easy-to-identify label for water-efficient products that is backed by strict criteria and independent certification. Generally speaking, WaterSense labels products that use 20 percent less water and perform as well as—or better than—conventional models. To earn the WaterSense label, products must be independently tested and certified to meet EPA's criteria for efficiency and performance.

In less than 2 years, WaterSense has already become a national symbol for water efficiency among utilities, plumbing manufacturers, and consumers. Awareness of the WaterSense label is growing every day. More than 80 different models of high-efficiency toilets have earned the label, and WaterSense labeled faucets should be available by next year. In addition to manufacturers, EPA is working with utilities. retailers, distributors, and the media to educate consumers on the benefits of switching to water-efficient products.

For example, toilets account for about 30 percent of the water used in the home and Americans waste 900 billion gallons per year by flushing old, inefficient toilets. A family of four can realize a net savings of $1,200 from retrofitting their home with WaterSense labeled toilets over the product's lifetime or a net annual savings of $60

per year after accounting for the cost of purchasing the new WaterSense labeled toilets. Furthermore, WaterSense labeled toilets save nearly $300 over the product's lifetime when compared to other widely available toilets today with little to no significant difference in cost compared to a standard model.

If every home replaced just one old toilet with a WaterSense labeled toilet, the water savings would be enough to supply nearly 10 million U.S. households with water for a year. Savings at the tap also result in energy savings. If just 1 in every 10 homes in the United States were to install WaterSense labeled faucets or aerators in their bathrooms, in aggregate they could save 6 billion gallons of water, and more than $50 million in the energy costs to supply, heat, and treat that water.

The potential for preserving our water supply for future generations through this voluntary program is great, and WaterSense will continue working on new product areas in the future. The average home, retrofitted with water-efficient fixtures, could reduce water waste by 30,000 gallons per year. If one out of every 10 homes in the U.S. upgraded to water-efficient fixtures (including ENERGY STAR labeled clothes washers), it could reduce water use by more than 300 billion gallons and save nearly $2 billion annually on utility bills alone (not including the cost of the new fixtures.)

EPA realizes that water-efficient products are just the start of a new wave of water conservation. We are working with utilities to incorporate WaterSense promotion as part of their broader conservation efforts, which include behavioral changes as well. We are asking our retail and distributor partners to stock WaterSense labeled products and make it easy for their customers to find water-saving options. We have also employed public service announcements, articles, promotional materials, and other cost-effective marketing tactics to educate consumers about the availability of WaterSense labeled products. By promoting this easily recognizable, consistent national brand, EPA hopes WaterSense will make water-efficient products the clear and preferred choice among consumers.

Question 2. What is the relationship between the WaterSense program the Green Buildings' LEED program?

Response. WaterSense is very supportive of the work the U.S. Green Building Council is doing through its LEED rating systems. WaterSense is actively engaged in improving the water-efficiency components of those systems. At this time we work with LEED in two ways. First, a staff member is a member of the Water Efficiency: Technical Advisory Group (WETAG). The WETAG advises LEED on water efficiency in general, reviews credit interpretation requests and helps integrate water efficiency into new and revised rating systems. Second, EPA has a Green Buildings Working group that provides a conduit for EPA review of LEED rating systems and other green marketplace activities. A WaterSense staff member is an active participant on this EPA workgroup and coordinates with them when appropriate.

Senator LAUTENBERG. Thank you very much. Mr. Grumbles, in the year 2000, EPA estimated States needed $181 billion for wastewater infrastructure, but the Administration has proposed cutting the annual funding for the State Revolving Fund in half, from its longstanding funding level of $1.35 billion to $6.87 million. Now, is it possible that we can fulfill our wastewater needs for infrastructure while cutting the level of funding that much?

Mr. GRUMBLES. When the Agency developed the needs survey and is working on the ongoing needs survey, and when we also issued the 2002 gap report, we made it clear that the overall gap or the needs are not the Federal role. Some of those needs are operation and maintenance. So the answer is that we believe that we can narrow that gap, over time even close the gap, if we ensure that the State Revolving Funds are more sustainable, not relying on continued or increased levels of Federal seed money, but that we reduce red tape through the SRF program, that we embrace Water Enterprise Bonds——

Senator LAUTENBERG. Mr. Grumbles, forgive me, but let's not look back to what we thought might happen. Can we do the job that we have to do while we cut the funding for the State Revolv-

ing Fund in half? Do you really think that is adequate to deal with the problems that we have now?

Mr. GRUMBLES. I think we can make progress on that front. When you look——

Senator LAUTENBERG. That is not making progress. The progress can be made an inch at a time and never getting to a point when we have done the work that we have to.

Mr. GRUMBLES. Mr. Chairman, I think the President's budget request moves us in the continued direction where we will make progress. EPA's budget request for the Clean Water SRF is a very important part of the overall picture, but it is not the only part of the picture, and the SRF is not the only tool——

Senator LAUTENBERG. The answer is no. Thank you. Mr. Grumbles, I know you are very capable, professional, and we respect the work that you do, but how we can find ways to justify reducing the funding available in half in this program, there are other things that also can be done, but we are deep in trouble with contaminated, polluted water.

Senator Voinovich, who comes with a unique experience of having been a mayor and a Governor, and I have a bill to substantially add to the wastewater improvement problem, the cleanliness problem, and we are looking for far more funding. On the other hand, I hear you justifying this cut and, frankly, it is disappointing.

When will the 2004 Clean Watershed Needs Survey be released?

Mr. GRUMBLES. Mr. Chairman, we are working on the final stages of interagency review, and I am estimating that it would be in the next couple of months, before the end of the year.

Senator LAUTENBERG. What has taken so long?

Mr. GRUMBLES. It has taken quite a bit of time, and I think one of the reasons is looking at the various numbers, documenting, verifying the State data. Also——

Senator LAUTENBERG. Isn't that the normal routine that you would go through when you have a program like this, you take the steps necessary to evaluate and conclude?

Mr. GRUMBLES. It has taken longer than I would like, and I think part of the reason is not just the size of the numbers and the complexity of the different categories, but it is also the assumptions in analyzing what aspects of the Clean Watershed Needs Survey we need to focus in on. So I recognize it is an extremely important document, and we are working to get it to you as soon as we can.

Senator LAUTENBERG. Would it be your guess that the report will show that State needs have grown or fallen?

Mr. GRUMBLES. I think it is a mixed bag, and I don't feel comfortable going into great detail, but I would agree with every member who has spoken so far, that the needs continue to grow in many respects due to the nature of the aging of the systems and the——

Senator LAUTENBERG. How about the growth in the population?

Mr. GRUMBLES. The growth in the populations.

Senator LAUTENBERG. How about the severity of storms that dump far——

Mr. GRUMBLES. I think that will have great impacts in some areas of the country, but that is something that is——

Senator LAUTENBERG. Will that be considered in the final report?

Mr. GRUMBLES. Well, we will certainly make sure that the Clean Watershed Needs Survey reflects the needs due to wet weather flows, storm, combined or sanitary sewers and stormwater needs to the Stormwater Permitting program. Mr. Chairman, it is a priority for me to be gathering the best information we have to look to see what adaptation should be made in managing the Clean Water Act and Safe Drinking Water Act programs in light of climate change. So we have an intra-agency task force on that specifically focused on water-related implications. It is a very good question and it is an area that we want to get all the information we can and adjust accordingly.

Senator LAUTENBERG. We will come back.

I now would ask the former Chairman of the committee, the Ranking Member on the full committee, for his questions, please, Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

You had said, Ben, that there are other things, or the Chairman said, that also can be done, and I would ask you the question how is the Administration using the flexibility of the SRF to promote new financing mechanisms.

Mr. GRUMBLES. The SRF has been so successful because of the ability to leverage the Federal funds and other State funds. The flexibility that States have to use innovative and creative approaches that are consistent with our overall guidelines. There are several items that we are very interested in pursing further and have gotten advice from our Environmental Financial Advisory Board. One is increased use of loan guarantees. Another one is link deposit loans, in particular in areas where the septic systems or other types of non-point sources, where the recipient of the loan wouldn't be necessarily a community, but an individual using local banks with the SRFs. That is an important one. We are committed to keeping the SRFs flexible and sustainable because we view that as one of the major tools for meeting clean water needs.

Senator INHOFE. I know you are doing a lot of things, and that is why I wanted to get into this discussion. The one thing we all agree on here is that more money is needed to get into the SRF. The SRF is a program that since 1987 has been working very well, certainly in my State of Oklahoma it has been working well, and there are many creative things that are being done in terms of bond issues to try to accommodate the match, but it is a difficult thing. It is kind of like the problem that you and I have talked about before on the transportation reauthorization bill. Two years ago, when we passed our reauthorization, I think it went down as the largest non-defense spending bill in history, and yet all it did is just sustain what we have now. So in that bill we are looking for new ways to finance roads, instead of doing it the same way we have done it since the Eisenhower administration.

Now, I would challenge you to be as creative as possible. Maybe I am the only one up here who feels this way, but sometimes you just can't pour more money in; there are other more creative ways, and I ask you to use the flexibility that you have been studying to come up with something that will resolve a program that has been very successful.

Now, you mentioned the four pillars. You got through asset management and the full cost pricing and sustainability and then the watershed approach. You were cut a little bit short on points three and four, the third and fourth pillar, and I want to give you the opportunity to elaborate a little bit more on those because I know you have more to say about that.

Mr. GRUMBLES. Thank you, Senator. Water efficiency is one of the other pillars. In that one, all of us, particularly now, when the Nation and the country and the world are focused on climate change or on energy security, the Administrator is focused on clean energy and energy efficiency, and the connection to water and wastewater is undeniable and is inextricable. So we see that one of the great opportunities to reduce the demand, to save money and save energy for wastewater utilities in communities across the country is to encourage and provide information on water efficiency.

We see connecting the dots or, frankly, connecting the drops and the watts, people will be able to save money and also mitigate greenhouse gas emissions, and the WaterSense program is a very exciting one. We are modeling it on the Energy Star program; we work very closely with the Energy Star program. This one is focused solely on water and WaterSense is committed to the principle of providing information so that consumers can choose water-efficient products such as high-efficiency toilets or faucets or outside residential irrigation systems to reduce the waste and to save money. That is one.

The other pillar is a watershed approach, which really means, Senator, helping to fund the most cost-effective ways to deal with stormwater or wet weather flows in a watershed context so that there is not an unnecessary expenditure by a utility, if they can work with other partners, voluntary partners in the agricultural community or others. That, to us, is the key to sustainability and reducing costs downstream to the wastewater treatment plant.

Senator INHOFE. That is good. Well, thank you very much, Mr. Grumbles.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman. Ben, in the ongoing needs survey process—I know that is being finalized—folks from Louisiana identified about $4.7 billion of needs, and the word back from EPA was, well, we only agree or recognize $2.7 billion of that. Now, that is a pretty big delta, that is a big gap. I wouldn't expect there to be complete agreement immediately, but that is an awfully big gap. How do you explain that size discrepancy?

Mr. GRUMBLES. Senator, I would welcome the opportunity to learn more about the details of that discrepancy. As Chairman Lautenberg was asking me about the amount of time it has taken to complete this needs survey, one of the obvious reasons for that is understanding and making decisions about eligibilities. There are some new areas that are under discussion. So I would very much like to get more of the details about what Louisiana is saying the difference is between the two numbers.

I would say we recognize that sometimes States have a different view of what is the Federal role or what is appropriate to submit

in terms of their needs, clean water needs, over a 20-year period, so that is probably at the heart of it, Senator. I look forward to working with you and understanding what the difference of opinion is.

Senator VITTER. OK. We will make sure the Agency has that input from the State. But in terms of Federal role, I mean, I think we are talking about need, before we get to the issue of Federal role, so that is not part of the discrepancy in the sense that the State was asked to identify the need. It is a later discussion about who pays for it and what ratio, and the EPA was similarly responding to identification of the need, not just the Federal role. But we will make sure the Agency has all that information.

Ben, I am very concerned that in almost all phases of government up here, in the last 20, 30 years, we have increased complexity and paperwork and regulation so much that a dollar goes a whole lot less far than it used to. That is true whether it is building highways or whether it is building Corps of Engineers projects, certainly important to Louisiana, or whether it is doing this wastewater infrastructure work. What can EPA propose specifically to reverse that trend so that whatever dollars we come up with gets more done?

Mr. GRUMBLES. Your question is a very good opportunity to talk about streamlining and reducing red tape and process, and making sure we focus on the environmental priorities. The key is having a results-oriented approach. A couple things. One is continued vigilance and commitment to reducing red tape and trying the best we can to streamline the process in getting assistance or getting approval for clean water projects. I think that is very important as the committee considers reauthorization of the SRF and other programs to do the best to provide flexibility to States and also keep at a minimum the cost-cutting requirements. They are important concepts in many respects, but sometimes that can increase the cost of the project.

Environmental results is the key, and that is why we embrace a watershed approach: water quality trading, encouraging innovative partnerships so that that little bit of money goes a lot further and tackles the greatest environmental priorities. That is one of the reasons why the Administration is enthused, why the mayors and why utility rate commissioners are enthused about the new proposal to bring in $5 billion to $6 billion in new money over time through amendments to the tax code and remove the Private Activity Bond, annualize State volume cap on Private Activity Bonds.

We feel that that will encourage local choice and also public-private partnerships where the private sector—it doesn't mean privatization, Senator. What it means is partnerships for progress. If a community is comfortable with new funding through partnerships with the private sector in combination with the public, with public accountability, we think removing barriers that are in the tax code, that is a very important step to take to get more out of our limited dollars and also to get environmental results.

Senator VITTER. Well, I look forward to those specific proposals and any others, because I think that is a huge part of the problem.

Mr. Chairman, I hope we can partner. I agree we need more Federal resources, but I hope we can combine that with, at the same

time, less Federal burden or paperwork, because I think we need to attack the gap from both of those directions to ever be able to close it.

In closing, let me just say I think it is a problem overall. I think it is a particularly onerous problem for smaller communities. We are going to hear from Mayor Brasseaux, the mayor of Carencro, who can give some unique perspective on that.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Thank you.

Senator Voinovich.

Senator VOINOVICH. Mr. Chairman, I apologize that I had to skip out.

Senator LAUTENBERG. Well, we are anxious to hear your comments.

Senator VOINOVICH. Thank you.

If I were you right now, I would sit down with the National League of Cities, U.S. Conference of Mayors, the National Association of County Officials to talk about a way of streamlining the paperwork that is involved in making application for these loans. I really believe a lot of smaller jurisdictions just can't do it. From what I understand from my people as I travel in Ohio, we have 100 communities that are up in arms right now about the demands coming out of EPA, but to put salt into the wound is the stack of papers that they have to fill out in order to do this. If part of it is because you have been loaded up with stuff that we have put on your shoulders because we think we are going to micro manage your operation, then I think you ought to come back to this committee and say, look, the reason why we are doing a lot of this ridiculous stuff is because you pass these ridiculous laws that make us do it. OK? That is No. 1.

No. 2, you have to face up to the fact that we don't have enough money. I mean, you go up to the Office of Management and Budget, and what do they tell you? What do they tell you? The bottom line is we have the 2000 survey, right?

Mr. GRUMBLES. Yes, sir.

Senator VOINOVICH. We don't have the 2004 survey. I understand the reason why is because OMB doesn't want us to have the information about the needs that we have out in the country because it would embarrass them. Thank God the Senate passed legislation that is going to study the complete infrastructure needs of this country it will take us a couple years and we will convey to the American public just how we have ignored infrastructure needs in America today, whether it is in sewer and water, highways, Army Corps of Engineer projects, you name it. We just haven't done the job. Our heads have been in the sand.

So what do you say to them when you go up there to OMB? What does Administrator Johnson say to them when they say to you that we are going to cut the budget? How ridiculous is it if we have this problem that we are talking about now while you are cutting the budget for the funds?

Mr. GRUMBLES. Well, Senator, there are budgetary constraints across the board in various programs. When it comes to water infrastructure——

Senator VOINOVICH. Almost $600 billion for the Iraq war. OK? No request to pay for the war. So, as a result of that, a lot of stuff that we should be doing here in the United States of America isn't getting done. So what do you tell them?

Mr. GRUMBLES. Well, what we focus on is meeting the needs under the Clean Water Act, the domestic needs, and coming up with innovative approaches, and what that means, it means advancing full cost pricing and encouraging providing communities with the leeway and the opportunity to do that, to set rates that better reflect the true value of the services of those infrastructure systems, because we prefer not to be in a Department of Justice enforcement action consent decree situation. We think the better approach is to set the rates, to get the support from—and Mayor Shirley Franklin of Atlanta really focused in on infrastructure as a priority for her and got rate increases to reflect the needs in the community——

Senator VOINOVICH. Yes, but can I tell you something? I was there, OK? I did it as mayor of Cleveland. Our water rates were way down. We increased them 130 percent, OK? We have realistic water and sewer rates in Cleveland and the Northeastern Ohio Regional Sewer District. But the demands that you have made in order to take care of the overflow problem, it is impossible for them to do it. You are saying you have to do it in 15 years, so now they are with the Justice Department. Why can't you allow them to do it in 30 years? If you are going to say to the local communities we ain't gonna give you any money and, by the way, when you try to do it on your own, we're not going to give you enough time to get it done, that is ridiculous.

Mr. GRUMBLES. Well, we recognize the need, and I know the Administrator does and I do. We recognize the need for flexibility, not have a cookie cutter approach to what is the proper number of years for a long-time compliance strategy or plan when it comes to the CSOs and catching up on neglected infrastructure over the years, but we are very sensitive to the public health and environmental needs.

I think that America demands clean water, not clean water eventually, so we get into the situation where we have to do a better job, Senator, of removing the red tape; providing increased funding opportunities; if we stand in the way as a barrier, removing those barriers through tax code amendments, which is what the Water Enterprise Bonds proposal does; but also providing greater freedom for innovative State fund managers to use leveraging, to use the linked deposit loans approach or other approaches to try to meet the needs, and the needs grow.

Senator VOINOVICH. Well, what you are basically saying is you want to use some Rube Goldberg ideas in order to take care of the problems that the local communities have and patch this together with this over here, and, you know, in our State, frankly, we will do that. We will go to the Appalachian Regional Commission or we will go to Rural Development. We will go to anything else besides going to the EPA and going through the imaginable line, the paperwork that is involved. A lot of times people say I am not going to do it because, you know what, there is no money there, why bother with it, Senator? I am not going to do it.

I am just saying I don't think you are being realistic. I think that third initiative, I don't believe it; it is not realistic. Somebody has to look at this thing forthrightly and say, you know, it isn't working. We do need more money. We need to look at the amount of time we are going to give these folks to pay back their bonds and to start to work with the communities, and just not say, well, I am sorry, you are not doing what you are supposed to do and, bam, it is in the Justice Department. You know what? They are all spending money now on paying for lawyers to take care of the situation.

So I am saying to you that I think you ought to go back to the Department and tell them this Senator thinks their proposals don't make sense and that they ought to go to the Administration and tell them that they ought to put some money where their mouth is, instead of this third initiative that they have that really isn't making a heck of a lot of difference.

Mr. GRUMBLES. Well——

Senator LAUTENBERG. Thank you, Senator Voinovich. Thank you very much for your not unusual candor.

[Laughter.]

Senator LAUTENBERG. Since my name is Frank and I am, we are quite a twosome up here.

What I am going to do is have a 10-minute recess while we go to vote, and I would ask the patience of the second panel, please, to excuse us, but that we have to do.

But I would ask you a question. Are there real threats posed to public health, to the environment, parts of our economy from sewage spills and combined sewer overflow? Are there serious threats there?

Mr. GRUMBLES. There are serious threats, Mr. Chairman——

Senator LAUTENBERG. There are. Well, I just wanted to be sure, because to follow on to what my colleague from Ohio said, you know, the war represents a terrible threat; we want to take care of our troops and we want to reduce not only the anguish and the danger to our——

Mr. GRUMBLES. Senator, it is an enforcement priority for the Agency, specifically the sewer overflows; it is a compliance assistance priority for us as well. I——

Senator LAUTENBERG. Mr. Grumbles, I respect you, I really do, but the fact of the matter is there isn't enough money to do this. We have been through this and several times you have explained how well off we are because the funds being replenished and so forth. But you also suggested that cost pricing ought to be——

Mr. GRUMBLES. Full cost pricing.

Senator LAUTENBERG. Full cost pricing. So you are advocating an increase in the cost to all the communities and all the people that they ought to pay more.

Mr. GRUMBLES. Not all. It is a community decision, and some communities are showing great leadership.

Senator LAUTENBERG. OK. But the word goes out. It is pretty simple. The word goes out, hey, pay more. Don't call it a tax, whatever you do, maybe call it a fee or something else, but that we want to pass along more of the cost to the communities.

You know, this is not a hearing on clean water, but when you look at the cost of what people pay to get water in bottles or jugs

or whatever, something like $50 billion to $100 billion a year. Here you are trying to make excuses for the inadequacy of the funding by the Federal Government for the State Revolving Fund, and you are glib with your language, Mr. Grumbles, and I don't want to be too tough, but I would tell you that is really—Senator Voinovich described it as Rube Goldberg, but I would say smoke and mirrors. We get to the same thing.

Thank you very much. The record will be kept open; you will get further questions.

Once again, we will take a 10-minute recess. I want everybody to note the clock while we run down, vote, and come back. We look forward to hearing from the next panel.

[Recess.]

Senator LAUTENBERG. As the committee returns, please, to order, I invite the second panel to take their places, please. Welcome, all of you, and my apologies for leaving. We took a couple more minutes than 10. We welcome the testimony that each of you brings, the knowledge that you bring. I can't greet this panel without saying that the mayor of my capital city, our capital city, also president of the U.S. Conference of Mayors, Mayor Palmer, is here. He and I have worked together arduously on all kinds of things, including gun violence, et cetera. So we are glad to see you here, Mayor Palmer, and invite your testimony.

We will introduce the other witnesses at this time: Mr. Glenn Brasseaux, mayor of Carencro, LA, Board Member of the Louisiana Rural Water Association; Joe Freeman, chief of the Financial Assistance Division from the Oklahoma Water Resources Board, also vice president of the Council of Infrastructure Financing Authorities; Mr. Chris Westhoff, president of the National Association of Clean Water Agencies; and Nancy Stoner, director of the Clean Water Programs at the National Resources Defense Council. Thank all of you for joining us.

Now I would call on Mayor Palmer. You have 5 minutes, Mayor, each one of you, by the way, and we would hope that you could complete your testimony in that time. We are fairly loose for about 20 or 30 seconds, but beyond that it gets tough.

Mayor Palmer.

STATEMENT OF HON. DOUGLAS H. PALMER, MAYOR OF TRENTON, NJ, PRESIDENT OF THE U.S. CONFERENCE OF MAYORS

Mr. PALMER. Thank you, Mr. Chairman. It is indeed a pleasure to see you again. Just 48 hours ago we were together at the site of the Brooklyn Bridge with myself, you, and Mayor Bloomberg and other mayors related to guns and terrorism, and now we are here talking about water and wastewater. So, suffice it to say we have to keep meeting like this.

Senator LAUTENBERG. Yes, indeed. Protecting the public is our mission.

Mr. PALMER. Absolutely.

Mr. Chairman and members of the committee, my name, as was stated, is Douglas H. Palmer. I am the mayor of Trenton, NJ and president of the U.S. Conference of Mayors. I also would like to thank the members of the subcommittee for inviting me to testify and ask that my full testimony be submitted for the record.

As president of the Conference of Mayors, my responsibility is to represent the Nation's mayors on national and local priorities. In January, we developed a 10-point plan entitled "Strong Cities . . . Strong Families . . . for a Strong America." One of our 10 points re-emphasized a point that mayors have been focusing on for years, and that is improving our Nation's infrastructure, which includes our water and wastewater systems. In our plan, we call for tax incentives, bonds, and other measures to support local and State efforts and stimulate private sector participation to improve our Nation's infrastructure. These incentives and bonds would help create thousands of jobs and revitalize critical infrastructure that is necessary to keep the United States competitive.

In my past role at the Conference, I also served as chair of the Mayors Water Council, which was created to focus on water resource issues. The Mayors Water Council has conducted numerous surveys and reports regarding water issues that face our cities, and I would like to outline some of our findings.

The Mayors Water Council conducted a survey that identified the three most important water resource priorities facing the Nation's cities: No. 1, rehabilitating aging water and wastewater infrastructure; No. 2, security and protection of water resources infrastructure; and No. 3, water supply availability.

A 2007 report summarized how much money is being spent by local governments on water and sewers. In Fiscal Year 2005, local government spent $82 billion to provide sewer and water services and infrastructure, which is up from $45 billion in Fiscal Year 1992. Total spending on sewer and water from 1991 to 2005 was $841 billion. We estimate increased spending by local government at $110 billion annually by the year 2010.

Local financing of water and wastewater infrastructure varies, but is limited to a few general approaches: cities typically use more than one financing source for major capital investments; the pay-as-you-go approach stands out as the most common financing tool; revenue bonds are the second most frequently used; slightly more than a third of cities use the SRF; and Private Activity Bonds, which was mentioned earlier, are seldom used due to a Federal tax code impediment imposing State volume caps.

Cities generally prefer to use municipal bonds and pay-as-you-go cash rather than the SRF loans. Cities find rate increases in government bonds are often more cost-efficient due to better finance terms and because of the greater time certainty in the finance process. About a third of the larger cities rely on the CWSRF because they may not have the access to favorable borrowing terms.

Also, when we talk about Federal financial assistance and municipal water infrastructure investments, you would think if two-thirds of the Nation's principal cities are not attempting to use the SRF loan program, in favor of other financing mechanisms, then why is the water infrastructure needs gap growing. As municipal spending on water infrastructure has increased over the last two decades,—and I know Senator Voinovich and Mayor Voinovich, as I like to refer to him—so have the number of unfunded Federal mandates. Local government cannot completely satisfy spending requirements because of the growing costs in this area and for other competing and worthy public services.

Unlike the Federal Government that plans on deficit spending, cities are required to balance our budget every year. Our priorities are the cost for water infrastructure has been squarely on the shoulders of local government and rate payers. Local government pays for 99 percent of drinking water and 95 percent of clean water services and infrastructure. At present, States play a minor but important role in helping local government provide these services and infrastructure. The Federal-State Revolving Fund Loan program plays a minor but a very important part in financing clean water infrastructure. As local government costs increase to keep pace with additional Federal and State mandates, and to adapt the climate change impacts, it is clear that increasing rates and the full use of the SRF will fail to satisfy our water needs.

Unless Congress modifies the tax code to make access to private capital and expertise for public purpose water and sewer services and infrastructure, the outlook is indeed gloomy. The Mayors Water Council has identified some basic approaches, including grants, 30-year no-interest loans, and greater use of the private activity bonds; providing grants to municipalities either directly or through States for water and wastewater infrastructure where there is an affordability issue or when a community faces severe environmental problems, including communities that have combined sewer overflow problems; expanding some portion of the current 20-year loan category to include a 30-year no-interest category or a 30-year low-interest loan payback period under the State Revolving Fund loan program for water and wastewater investment; and modifying current tax law by removing the Private Activity Bonds used for water and wastewater infrastructure from State buy-in caps.

We call on Congress to annually appropriate the Clean Water SRF at $1.355 billion or more and the Drinking Water SRF at $850 million or more to extend eligible SRF activities to include more competitive.

I know my time is up, but I would be glad to answer questions later.

[The prepared statement of Mr. Palmer follows:]

STATEMENT OF HON. DOUGLAS H. PALMER, MAYOR OF TRENTON, NJ AND PRESIDENT OF THE U.S. CONFERENCE OF MAYORS

Mr. Chairman and Members of the Committee, my name is Douglas H. Palmer. I am the Mayor of Trenton, NJ and President of the U.S. Conference of Mayors.

I would like to thank the members of the Committee for inviting me to testify here today.

The Conference of Mayors is a national nonpartisan organization that represents cities with populations of 30,000 or more of which there are over 1,200 in the United States.

As President of the Conference of Mayors, my responsibility is to represent the mayors of the United States on priorities for our cities and our nation. In January we gathered together to outline our priorities for the new Congress. We created a 10—Point Plan entitled "Strong Cities . . . Strong Families . . . for a Strong America."

One of our 10 points reemphasized a point that Mayors have been focusing on for years—improving our nation's infrastructure which includes our water and wastewater systems. In our plan we call for tax incentives, bonds, and other measures to support local and state efforts and stimulate private sector participation to improve our nation's infrastructure. These incentives and bonds would help create hundreds of thousands of jobs and revitalize critical infrastructure that is necessary to keep the United States competitive.

In my past role at the Conference, I also served as a Chair of the Mayors Water Council (MWC) which was created to focus on water resources issues, particularly on water and wastewater infrastructure development, financing, and most recently on water supply, conservation issues, and climate change adaptation.

The Mayors Water Council has also conducted numerous surveys and reports regarding water issues that face our cities. We have asked cities what are their most critical water issues, the financing tools they use to pay for water and wastewater infrastructure, and research on how much money is being spent.

I would like to outline some of the highlights of these findings and recommendations and submit the rest of my testimony into the official record.

NATIONAL CITY WATER SURVEY

The MWC conducted a survey of the nation's largest cities in 2005 that, for the first time ever, asked cities to identify the most important water resources issues they face. The three most important water priorities facing the Nation's cities are:

(1) Rehabilitating aging water and wastewater infrastructure (60.6 percent);

(2) Security/Protection of Water Resources Infrastructure (54.6 percent); and

(3) Water Supply Availability (46.5 percent)

In 2007 we did follow research and determined how much money is being spent by local governments on water and sewers.

In Fiscal Year 2005 alone, local government spent $82 billion to provide sewer and water services along with infrastructure, up from $45 billion in FY 1992. This translates that local government share of spending on sewer is over 95 percent and the state share is just under 5 percent. The local government share on spending on water supply is over 99 percent. Total spending on sewer and water from 1991–2005 was $841 billion.

The trend is for even greater spending levels. Factors contributing to the increased need for investment include: population growth and land use development; an aging water infrastructure that needs constant maintenance; changing environmental mandates; and climate change impacts that threaten water supplies from drought; reduced snow-pack; salt water intrusion on coastal aquifers; and increased storms, hurricanes and flooding that will require infrastructure hardening.

Local financing of water and wastewater infrastructure varies, but is limited to a few general approaches, (see Table 1). The columns in this Table do not add to 100 percent because cities typically use more than one financing source for major capital investments. The "Other" category, however, stands out because it is comprised of "pay-as-you-go" finance approaches. It is commonplace for cities identifying this approach to raise user fees and rates to finance new construction, replacement construction and rehabilitation of existing water infrastructure.

Other important findings from the survey indicate that:

- Revenue bonds are the second most frequently used form of financing after "pay-as-you-go"
- Private Activity Bonds are seldom used (primarily due to the state volume caps limiting such use)
- Slightly more than a third of cities use the CWSRF as a financing tool

Table 1.—Frequency of Multiple-Source Financing of Major Capital Investments in Water Infrastructure

Type of Financing	2000–2004 (% of Cities)	2005–2009 (% of Cities)*
General Obligation Bonds	28.8	28.0
Revenue Bonds	46.1	50.8
Private Activity Bonds	0.8	1.4
State Revolving Fund	38.3	38.6
Other	51.7	53.5

*Planned major capital investments in water infrastructure.

The 38 percent of cities that use the SRF do so because they have no other means of financing needed water infrastructure improvements, or would have to delay investments until financing capabilities match demand for investment.

CITY PRACTICES AND ATTITUDES CONCERNING THE STATE REVOLVING FUND LOAN PROGRAM

The MWC prepared a report in July 2006 on city attitudes about the Clean Water State Revolving Fund loan Program (CWSRF) and the Safe Drinking Water State

Revolving Fund loan Program (DWSRF). This Report sheds light on why cities do or do not prefer to use the SRF financing approach. The summary findings indicate:

• Cities generally prefer to use municipal bonds—revenue and general obligation bonds (35.2 percent of cities); and, Pay-As-You-Go—cash (26.0 percent of cities) rather than SRF loans. The primary reason for this is because it is more cost-efficient due to better finance terms and the greater time-certainty in the finance process. This preference also reveals that cities with healthy bond ratings and user fees and charges that anticipate the need for reinvestment in water infrastructure play a strong role in finance decisions.

• Red Tape, burdensome paperwork and SRF loan conditions and strings were identified by 15.1 percent of the survey cities as the critical reason why they did not turn to the SRF program for water projects.

• Another 11 percent of survey cities indicated that they applied for an SRF loan but were either rejected or did not receive a response to their application; or, they did not apply because they had knowledge that they would not qualify either because of the type of water project involved or because the state priorities would not favor their applications.

• A small percentage of survey cities (5 percent) stated that they prefer to seek grants over the use of SRF loans.

• A small percentage of cities (6.8 percent) indicated that they had used the SRF loan program in the past, and they "might" or "will" consider using it for water projects scheduled between 2005 and 2009.

• About 10 percent of the survey cities stated that they did not investigate the use of the SRF loan program for water projects; or that they did not need to use the SRF; or that they were not responsible for capital investments in water infrastructure (3.2 percent for this latter group).

FEDERAL FINANCIAL ASSISTANCE AND MUNICIPAL WATER INFRASTRUCTURE INVESTMENTS

If two-thirds of the nation's principal cities are not attempting to use the SRF loan program because they have other viable financial resources for water projects, why is the water infrastructure "Needs Gap" growing instead of closing?

The transfer of financial responsibility for water infrastructure investments from federal and state governments to local government is firmly entrenched. Simultaneously, major capital investments have shifted from federal and state grants to local lending by way of municipal bonds, user charges and low interest SRF loans. The U.S. Bureau of the Census reports that combined municipal expenditures for water and wastewater infrastructure are second only to educational expenditures. We are experiencing enormous investment, but a growing or, at best, stable water infrastructure investment "Needs Gap".

As municipal spending on water infrastructure has increased over the last two decades so has the number of unfunded federal mandates. The "Needs Gap" itself is measured in terms of what it will take to comply over a 20-year term with existing law. As new environmental requirements are set for water quality the cost to reach or maintain the compliance point is adjusted upward.

Local government also cannot completely satisfy spending requirements in this area because the costs will continue to grow along with competing needs for public capital. Mayors face the daily challenge of balancing the multitude of needs in the community for worthy public-purpose spending with limited financial resources. And we, unlike the federal government, are required to balance our budgets every year.

THE U.S. CONFERENCE OF MAYORS WATER INFRASTRUCTURE POLICY PRIORITIES

The Conference of Mayors and the Water Council has passed numerous policies, recommendations, and encouraged best practices that will enhance city efforts to provide and pay for clean and safe water for our citizens while protecting our water supplies.

In the area of financing, we continue to encourage cities to conduct full cost accounting and utilize asset management techniques to determine the true cost of providing and maintaining water systems as well as educating the public on the true cost of water. But as I mentioned before, with the ever growing needs, cities can not do it alone and therefore we need additional financing tools to assist us with our efforts.

The Mayors Water Council has identified some basic approaches including: grants; 30-year no-interest loans; and, greater use of Private Activity Bonds (PABs).

• Providing grants to municipalities, either directly or through states, for water and wastewater infrastructure where there is an affordability issue or when a com-

munity faces severe environmental problems including communities that have combined sewer overflow problems;

• Expanding some portion of the current 20-year loan category to include a 30-year no-interest loan category, or a 30-year low-interest loan payback period, under the State Revolving Fund loan program for water and wastewater infrastructure investment; and

• Modifying current tax law by removing Private Activity Bonds (PABs) used for water and wastewater infrastructure from state volume caps. The increased use of private activity bonds for public water infrastructure can boost aggregate spending on water infrastructure and help cities make progress in closing the "Needs Gap".

In our opinion, these approaches are necessary to help us meet our water infrastructure needs.

Increased Funding and Flexibility of the SRF

Regarding the traditional SRF programs, the Conference of Mayors resolution adopted in June 2006 calls for Congress to annually approve recapitalization authorization to the CWSRF at $1.355 billion or more, and the DWSRF at $850 million or more. The resolution ". . . strongly urges the Congress to approve legislation to substantially increase the authorized levels for both Funds to help reverse the continuing decline of the federal share of financing these federally mandated improvements."

The Conference of Mayors water resources policy supports reauthorization and recapitalization of the CWSRF. While the CWSRF is not perfect, it has proven to be a valuable financing resource to the nation's cities. The state SRF programs and the U.S. EPA have much experience with this program, and the Conference of Mayors would rather improve on the current program than implement a new initiative.

Some additional improvements that we would recommend based on the results of our 2005 National City Water Survey results would be to extend eligible SRF activities to include replacement or major rehabilitation would be a step in the right direction. Similarly, the Conference of Mayors adopted policy in June of 2005 calling on Congress ". . . to approve legislation that would complement the Drinking Water State Revolving Fund and the Clean Water State Revolving Fund by providing more targeted and direct federal resources to help the nation's communities deal with other water infrastructure-related issues, including $50.6 billion for combined sewer overflows, and $88.5 billion for sanitary sewer overflows and stormwater management;".

Other eligible activities that could be funded under the SRF include: development of a conservation and management plan, implementation of lake protection programs, programs to reduce municipal stormwater runoff, and watershed protection including the encouragement of green infrastructure programs. We would like to see even greater encouragement to fund such comprehensive efforts to improve water quality.

The Conference of Mayors is supportive of legislation that includes a program, even if it began as demonstration program, for water quality enhancement and management. One of the most difficult problems cities face involves achieving state water quality objectives and total maximum daily loads (TMDLs) in the face of the virtually unregulated nonpoint pollution sources that are usually outside our jurisdictions.

The U.S. Environmental Protection Agency (EPA) has recognized that agricultural and livestock land uses contribute a major portion of nonpoint source pollution in many areas. Many of our cities are engaged in watershed management efforts to deal with nonpoint sources (including urban runoff). Yet there is a critical lack of regulatory drivers forcing the agricultural and livestock land users to contribute to the solution. In some cases, the timing of pending TMDL requirements will force cities to pay for water treatment caused in large part by the upstream, non-urban land users. EPA's Water Quality Trading Policy requires the non-urban polluter to voluntarily participate in a trading scheme.

The Conference of Mayors adopted an action plan for sustainable watershed management nearly 10 years ago. One of the five principles of that plan is to focus on non-urban, nonpoint source water pollution, and pursue public policy that would assign responsibility to pay for the treatment of polluted water commensurate with the contribution of the pollutant loadings. The action plan also clearly calls for allowing the agricultural and livestock land users to employ best practices and least cost approaches that are effective in lieu of stringent and costly regulations. Mayors fully recognize that these land users, although they may or may not be part of our cities, are important contributors to our regional economies. While we prefer to use the powers of persuasion to convince them to participate in the water pollution solu-

tions, such as the Water Quality Trading Policy approach, we have begun to experience failure in cooperative efforts.

The Conference of Mayors also adopted a comprehensive watershed organics management policy in 2002. This policy calls for Mayors to take an active, and leading, role in watershed planning to control organics and their nutrients which pollute streams and lakes, that subsequently require more costly treatment at water facilities.

Demonstration project could provide some of the appropriate financial incentives necessary to bring voluntary cooperative efforts to bear to solve the water quality designation/TMDL problems that we are facing. The Conference of Mayors supports this type of innovative approach and we would encourage this subcommittee to consider this approach.

Analyzing and encouraging the cost and effectiveness of alternative management and financing approaches

The Conference of Mayors supports encouraging but not mandating SRF applicants to explore cost-effective measures in their wastewater infrastructure solutions. Congress should encourage communities to consider regional alternatives, consolidation and public-private partnerships. It has been our experience that alternative approaches to planning, financing and operating wastewater facilities can yield significant public benefits for the amount of money invested. While choosing a public-private partnership approach should not be prescriptive, but it should be made possible for those cities that want to take advantage of such an approach.

A number of case studies were prepared by the Mayors Water Council on long-term Operations & Maintenance agreements between cities and private water companies. These projects have been able to produce cost-savings of 10 to 30 percent, as well as provide additional public benefits.

The ability of private water companies to competitively bid for "design, build and operate" (DBO) projects in wastewater is another important dimension to explore. The Conference of Mayors adopted policy encourages competition in the design-build-operate phases of new and refurbished water and wastewater infrastructure. This policy was adopted once it was determined that competition can lead to less costly projects than the traditional design-build methods employed in the past.

CONCLUSION

On behalf of the Conference of Mayors and the Mayors Water Council I wish to thank you again for this opportunity to speak before this subcommittee. We look forward to working with you as you move forward on important water resources legislation.

Senator LAUTENBERG. Thank you very much.

Mr. Brasseaux.

STATEMENT OF HON. GLENN BRASSEAUX, MAYOR OF CARENCRO, LA, BOARD MEMBER, LOUISIANA RURAL WATER ASSOCIATION

Mr. BRASSEAUX. Good morning, Mr. Chairman and members of the committee, and a special greeting to my Senator, Mr. Vitter, who is personally familiar with my small town in Carencro.

I am the mayor of the city of Carencro, just outside of Lafayette, LA. We have about 2,100 homes and businesses that we provide water and sewer service. We are a typical small city struggling to comply with Federal mandates, take care of our infrastructure, finance the cost of running water and sewer systems, and at the same time keeping water rates from overwhelming our citizens, especially our low income populations.

In Carencro and thousands of similar cities, we are barely getting by. Two years ago, the city self-financed with tax exempt municipal bonds a $1.5 million upgrade to the wastewater treatment system to comply with our sewer permit and handle new growth, which has been dramatic since the hurricanes have pushed numerous families into our community.

Recently, we were grateful to receive a $500,000 grant from the CDBG program to buy a new lift station, which was needed because, whenever we had more than a 2-inch rainfall, we had sewage overwhelming the distribution system and flowing out of our manholes into the ditches, an unacceptable situation. Keep in mind we have 13 more lift stations that need replacing or upgrading, some that are currently overwhelmed in significant rain events and release sewage in the streets.

In addition to the pumping and treatment issues, we have hundreds of feet of old truss pipe that is failing, which means it collapses without warning. Also, these old sewer lines result in too much water getting into the system and overwhelming the new treatment plant. This is the treatment plant that we just upgraded for $1.5 million. The engineers tell us in order to stop overwhelming the treatment plant, we need to spend another $300,000 to $400,000 to build a storage reservoir to hold excess water until it can treat it. The same engineers estimate that it would take about $7 million to fix old pipes, lift stations, crumbling manholes, and treatment plants.

It gets worse, Mr. Chairman. On the drinking water side of our city's operation, we just sold an estimated $3 million in city bonds to finance a new drinking water treatment plant and rebuild one of our five wells that was pumping sand. As I stated, we have recently self-financed the two largest upgrades for $4.5 million. We had attempted to finance these projects through the State Revolving Loan Funds, however, there was too much red tape involved with going through the State programs. I keep asking the city auditor if we can sell more bonds, and they tell me, with our existing debt, that we are maxed out on additional loans. No one thinks that rates can rise on low income households without causing economic hardship on these families. The city has reduced our emergency reserve account by more than 40 percent over the last few years.

My situation is common in all the States because small communities make up the overwhelming percentage of water and wastewater utilities, over 90 percent of regulated communities. Small town consumers often pay high water and sewer rates. Simultaneously, the rural areas have a greater percentage of low income families and a lower median household income. This results in a very high compliance cost-per-household in rural systems coupled with a lesser ability to pay.

As the committee looks at new policy and legislation for assisting small and rural communities, please know that on the onsite rural water technical assistance is what the Nation's small communities depend on for compliance and expertise in maintaining our water and sewer supplies. In Carencro, when our manhole covers were overflowing with sewage, Louisiana Rural Water had a fuel technician onsite to provide us help, direction, and a plan within 3 hours. We called the State to report the problem; however, the State is not in a position to tell us how to fix the problem, and advised us to call Louisiana Rural Water.

Another key principle we would like for you to consider is to target Federal subsidies to communities exhibiting the greatest need, both economically and environmentally. They should receive fund-

ing first. A significant portion of the funding should flow toward small systems because, generally, they need it more.

Our last point is that we believe State Revolving Funding should not be limited to making loans because, in many situations, small communities will not have the ability to pay back a loan.

In closing, Mr. Chairman, I would like to thank the committee for this opportunity. All of rural and small town America is grateful for your assistance and interest in helping.

I am happy to answer any other questions.

[The prepared statement of Mr. Brasseaux follows:]

STATEMENT OF HON. GLENN BRASSEAUX, MAYOR, CARENCRO, LA, BOARD MEMBER, LOUISIANA RURAL WATER ASSOCIATION

Good Morning Mr. Chairman and Members of the Committee—and a special greeting to my Senator; Mr. Vitter who is personally familiar with my little town of Carencro.

Thank you for allowing me to testify today on behalf of the over 50,000 small and rural communities with federally regulated public water and wastewater supplies. I am also testifying on behalf of my small city in Louisiana—the City of Carencro, the Louisiana Rural Water Association and the National Rural Water Association.

In order to focus my remarks, I would like to tell you about the water and funding challenges my community is facing—and then relate my situation to our key policy points that we would like the Committee to consider in any new state revolving funding legislation and in Congressional water appropriations.

I am the mayor of the city of Carencro, just outside of Lafayette Louisiana. We have a population of about 7,500 people—which means we have about 2,100 homes and businesses that we provide water and sewer service. We are a typical small city struggling to comply with federal mandates, take care of our infrastructure, finance the cost of running water and sewer systems, and at the same time keep water rates from overwhelming our citizens—especially our low income populations.

In Carencro, and thousands of similar small cities—we are just making it. Two years ago, the city self-financed, with tax-exempt municipal bonds, a $1.5 million upgrade of a portion of the wastewater treatment system to comply with our permit and handle new growth, which has been dramatic since the hurricanes pushed numerous families north in Louisiana. We have been spending thousands of dollars, from our operating budget, to retrofit another part of the wastewater system—our old lagoon that is about 50 years old, to meet our permit. Recently we were grateful to receive a half million-dollar grant from the CDBG program to buy a new lift station, which was needed because whenever we had more than a 2-inch rainfall, we had sewage overwhelming the distribution system and flowing out of manholes into the ditches—an unacceptable situation. Keep in mind we have 13 more lift stations that need replacing or upgrading—some that are currently overwhelmed in signification rain events and release sewage in the streets. In addition to the pumping and treatment issues, we have hundreds of feet of old truss/cast-iron pipe that is failing—which means it collapses without warning. We have to call in a contractor to repair collapsed lines at typical $5,000–$10,000 an incident. Also, these older sewer lines result in too much water getting into the system—and overwhelming the new treatment plant—this is the treatment that we just upgraded for $1.5 million. The engineers tell us, in order to stop overwhelming the treatment plant, we need to spend another $300,000–$400,000 to build a temporary storage reservoir to hold excess water until we can treat it. The same engineers estimate it would take about $7 million to fix all the old pipes, lift stations, crumbling manholes, and treatment plants—however that would take a long-time, so we would still need the temporary reservoir. It gets worse Mr. Chairman. On the drinking water side of the city's operation —we just sold an additional $3 million in city bonds to finance a new drinking water filtration treatment works and rebuild one of our five wells that was pumping sand. Our old drinking water treatment works was over 50 years old and was literally rusting away. We had to backwash our filters every four hours, where a new plant would only have to backwash once a day. Our energy and chemical costs have risen precipitously to comply with standards and meet the water demand of the community. And at times, our local courts will force small communities, like mine, to takeover very small failing sewer systems in our proximity to ensure public health protection, however, we often have to pay for the line extensions.

As I stated Mr. Chairman, we self-financed the two largest, and most recent funding proposals to finance the $1.5 million for the wastewater upgrade and $3 million

for the water upgrade. We had looked at attempting to finance their project through the state revolving loan funds, however, the experts and engineers assisting us on these projects thought there was too much red tape involved with going through the state programs—and that it would be most effective and economical for the city to sell bonds to move these projects forward.

As mayor, I recently supported a city sales tax increase just to pay for the increases in the cost of running the water and sewer. This initiative failed on a ballot measure by a 60 percent-40 percent vote of the citizens. I don't think our current rates are unreasonable, however my view is not shared by a large percentage of the city—and no one thinks that rates can rise on the low-income households without causing economic hardship on these families. We are constantly looking for new sources of financing and grants. The city has reduced our emergency reserve account by about 40 percent over the last few years to funding water projects. I keep asking the city auditor if we can sell more bonds—and they tell me with our existing debt that we are getting on shaky ground. I am primarily here to talk about water, however, we are other challenges to the city has to deal with including: roads, social spending, police, schools, competitive city salaries, etc. And I just learned last month that we could become a non-attainment area for ozone under the Clean Air Act.

My situation is common in all the states because small communities make up the overwhelming percentage of water and wastewater utilities—over ninety percent of regulated communities. Due to a lack of economies of scale, small town consumers often pay high water and sewer rates. Water bills of $50–$100 for water are not uncommon in rural areas. This dynamic often results in very high compliance costs per household in rural systems. Simultaneously, the rural areas have a greater percentage of the nation's poor and a lower median household income. This results in very high compliance cost-per-household in rural systems coupled with a lesser ability to pay. Small communities often have limited technical and administrative resources to deal with compliance and navigate through funding programs. In the smallest systems, one person may run both the water and sewer system and in some cases communities can only afford a part-time or volunteer operator. This lack of resources makes small systems a challenge for state agencies—the more complicated we make funding programs the more likely the small communities, which need the funds most, will not be able to participate.

As the Committee looks at new policies and legislation for assisting small and rural communities with water quality, financing, and compliance, please consider the following priorities of small communities that we believe need to be recognized in federal legislation. Most of these provisions were included in some manner in the drinking water SRF—balancing the federal priorities with the state's flexibility to tailor individual programs and discretion on implementation of each these programs.

1. On-site rural water technical assistance is what the nation's small communities depend on for compliance with the Clean Water Act and expertise in maintaining our water and sewer supplies. Carencro, and all the other small towns across the state and the Nation depend on the technical assistance provided by their state association for most all water issues. Whenever we have a problem in Carencro we call Louisiana Rural Water and they send someone immediately. When our manhole covers were overflowing with sewage—rural water had a field technician on-site to provide us help, direction, and a plan within 3 hours. We called the state to report the problem, however, the state is not in a position to tell us how to fix the problem. Regulators can tell us that we must fix the problem, but only the rural water technicians will tell us how to fix it, and in the most economical manner. For that particular crisis, our engineers told us what we needed to do three weeks later with a consulting fee. There is nothing wrong with that, however, with all the complexity and constant pressure to comply with new and changing federal rules, we need access to rural water associations' free and common-sense technical assistance. When Congress passed the mandate for all small communities to conduct a vulnerability assessment (under the 2002 Bio-Terrorism Act), the rural water association staff showed us how to complete this assessment without charge. Some consultants were charging thousands of dollars to assist communities in the same manner. Every community wants to provide the best possible water quality to their consumers. Rural Water provides the resources and training to achieve this objective in a common sense, hands-on manner systems can use. Please make funding for rural water technical assistance the key component of federal assistance under the Clean Water Act.

2. Communities exhibiting the greatest need should receive funding first. A significant portion of the funding should flow toward small systems because, generally, they need it more. Rates are often much higher per household in small commu-

nities—often from compliance requirements. EPA rules on the horizon will significantly increase water rates in rural systems. Also, rural communities often have lower median household incomes. The CWA and SDWA axiom in rural areas is: much higher cost per household with much lower income. No large system is facing cost increases on a per household basis comparable to what is facing small systems. It only makes sense that federally subsidized funding would flow toward the communities with the greatest need—that is to small systems.

3. Programs should not be limited to making loans because in many situations, small communities will not have the ability to pay back a loan—even with very low interest rates.

4. A minimum portion of the funds should be set-aside for small systems. This ensures that a state must set up a process for dealing with small communities. Once established, local pressures and priorities will determine the actual portion directed to small systems, which we expect will often be greater than the minimum prescribed. We urge the Committee to include, at least, the same set-aside amounts for the wastewater and drinking water programs; 15 percent minimum for small systems as like the drinking water program and 30 percent disadvantaged community subsidy like in the drinking water programs. This parity will ensure states have the tools to help the systems most in need and will be especially important if the two funds have transfer authority between them.

5. Corporate water systems should not be eligible for state revolving funding. Taxpayer subsidies should be prohibited from profit generating companies or companies paying profits for shareholders/investors. Private companies argue that they have to comply with the same regulations. However, they voluntarily chose to get into this "business" and compliance is not the over-riding principle that should be considered in this discussion. We believe that the distinction in mission between public and private is the core principal that should be considered. Private systems are in the business to maximize profit. Public water utilities were and are created to provide for public welfare (the reason why public water continues to expand to underserved and non-profitable populations). This is a significant difference. And while we believe that maximizing profit is a noble virtue and as American as safe water, we do not think that taxpayers should help the cause of privately owned systems. In addition, the needs of less affluent public water systems and families with no piped water dwarf the current SRF allocations. The state of Florida has a novel compromise to this issue. Florida limits SRF funds to private water systems less than 1,500 people—ensuring funds are limited to the class of private water systems that did not get into the business as a corporate enterprise.

6. Consolidation and privatization are limited solutions for small systems. Consolidation can work in some situations, but only for a small portion of small systems and only when the systems are in dose proximity and the economics make sense. Rural water associations are the lead proponents of consolidation when it makes sense—when it results in better service for the consumer, and we have consolidated numerous communities in all the states. Consolidation and regionalization that is in the consumers' best interest will happen naturally at the local level regardless of federal policy on issue. Privatization is rarely a less costly solution for very small communities. In the very small communities it is, perhaps, more common to see private systems being transferred to public bodies so they can obtain better financing and local governmental control. The missions of private water and rural water systems are fundamentally different, the reason being the lack of profitability in sparse rural populations.

7. The 1996 Safe Drinking Water Act State Revolving Fund made a significant policy change in the Safe Drinking Water Act funding by including as much flexibility as possible. Nowhere is this more apparent than in the state revolving fund section. Under this approach, states were given all sorts of discretion on how to spend the money to meet their local priorities. For example, a state can make grants, can fund set-asides, expand technical assistance efforts, create new prevention programs, increase state staff, or choose to do none of these and retain the traditional low interest loan focus. Small communities' message here today is that this was a monumental step in the right direction. This flexibility has made state SRFs better and more responsive to nearly every stakeholder. Small systems have seen a level of inclusion and benefits from the drinking water SRF that we could not imagine based on our experience with the wastewater SRF that does not include these flexible provisions.

8. Local Responsibility and Growth.—The amount of the "appropriate" federal contribution to local water supplies depends on what one considers the local responsibility to provide and pay for that service. The more you place responsibility on the locals for paying for service, the lower the federal obligation and cost. Rural water associations believe that local governments have the primary responsibility for pro-

viding water and sewer service. We believe that the federal government should subsidize the local community when there is a clear federal welfare interest to increase public health, assist low-income communities, protect the environment, or create economic development. Public health and environmental protection interests are often tied to a federal unfunded mandate, which should also be a priority of federal funding. However, we do not believe that the federal government is responsible for all water funding—and this is why we believe it is critical to target federal funding towards well-defined federal priorities. Due to the unique realities and characteristics of small communities, they arc often in greater need of federal subsidies to accomplish federal objectives.

9. Small communities are experiencing water problems due to aging infrastructure. We commonly see pipes that are decades old that contain outdated asbestos and cement materials that are failing and resulting in public health and environmental threats. Ruptures in wastewater pipes can lead to sanitary sewer overflows in varying degrees of environmental risk and possibly contaminating water supplies. Inflow and infiltration (I&I) of sanitary sewer systems is a widespread problem in rural and small communities. This can result in communities violating their NPDES permits, especially in wet weather, and cause mechanical facilities to need replacing more often. Aging water distribution lines can leak and cause significant loss of water and energy. In 2006, rural water associations assisted over 6,000 communities with problems of aging infrastructure directly resulting in water loss or I&I problems.

10. Complexity of the Application Processes.—In the smallest systems, one person may run both the water and sewer system and in some cases communities can only afford a part-time or volunteer operator. This lack of resources makes small systems a challenge for state agencies—the more complicated we make funding programs the more likely the small communities, which need the funds most, will not be able to participate. We urge you to exercise caution for increasing demands on applicants as each new demand makes the process tow complicated for small systems and therefore less attractive. We believe that the current review process is fully adequate to ensure repayment of loans, progressive environmental planning, and long-term capacity of applicants.

Senator LAUTENBERG. Thank you very much.

Mr. Freeman.

STATEMENT OF JOE S. FREEMAN, CHIEF, FINANCIAL ASSISTANCE DIVISION, OKLAHOMA WATER RESOURCES BOARD, VICE PRESIDENT, COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

Mr. FREEMAN. Good morning. I am Joe Freeman. I am chief of the Financial Assistance Division of the Oklahoma Water Resources Board, and I serve as vice president of the Council of Infrastructure Financing Authorities.

We welcome today's focus on the issue of financing water quality improvements. Hopefully, this hearing will signal a renewed effort to move forward in cleaning up our Nation's water bodies and protecting drinking water sources.

While the progress made by States and the Federal Government, working in partnership, address water quality challenges has been considerable, it is hardly sufficient to meet the overwhelming need. All evidence points to a gap that is large and growing. A survey of State Clean Water SRF programs undertaken by my organization in 2005 identified over 2,000 projects seeking loans requiring almost $9 billion in funding. In my State, the city of Tulsa alone has needs of an estimated $194 million over the next 5 years. It is clear that at current funding levels a great many needed projects are not going to move forward anytime soon.

The State Revolving Fund programs are at a crucial juncture. The Congress has an important choice to make in the future. We believe the State Revolving Fund model remains the most effective

and efficient means to provide assistance to communities to provide safe drinking water and achieve water quality goals. In order for this very successful State-Federal partnership to continue to succeed, the Federal commitment must be clear and sustained.

Since its inception, the Clean Water SRF has achieved an impressive record of success in restoring this country's lakes, rivers, and streams, and protecting the health of citizens. Since 1990, in Oklahoma, the Clean Water SRF has loaned over $665 million for projects, and I am proud to say provides over 65 percent of Oklahoma's wastewater financing. Nationally, over $60 billion in low interest loans have been awarded to finance the construction of thousands of projects across the country. These projects serve millions of people and treat billions of gallons of wastewater every day, wastewater that would otherwise destroy precious water resources and threaten the health of millions of people.

Let me turn to a few specific examples of what is being accomplished in my State of Oklahoma.

Since 1999, Oklahoma has made over $324 million in Drinking Water SRF loans. Our $45 million loan to the city of Bartlesville was used to construct a 26 million gallon per day water treatment plant, which allowed the city to realize cost savings of almost $14 million, or a third of the cost of the total project.

Our largest borrower is the city of Tulsa, which is using the Clean Water SRF program to implement a comprehensive wastewater plan to rehabilitate aging infrastructure, meet capacity needs, and comply with discharge permit requirements. By using the Clean Water State Revolving Fund loan program, it is estimated Tulsa will save about $59 million in just 5 years.

As these projects illustrate, the State Revolving Funds are playing a vital role in helping Oklahoma communities improve water quality.

As the committee develops SRF reauthorization legislation, we hope you will be mindful of the perspectives of State program managers. We are very concerned that reauthorization could end up adding more burdens to the SRF program than improvements.

State SRF managers who participate in the State-EPA Workgroup that oversees the program wrote the Chair and Ranking Member of this committee this summer to express exactly that concern. Making a reference to the House-passed reauthorization bill, H.R. 720, they warned, "This bill contains provisions that will make the program considerably less effective and efficient for potential applicants. The large number of additional program and project requirements proposed by H.R. 720 will result in additional work, time and expense, making it less likely that municipalities, especially small communities, will be able to afford to seek financing through the Clean Water SRF. We ask that you carefully avoid provisions that would impose restrictions on State program flexibility or will add new burdensome requirements on potential applicants." CIFA echoes these concerns.

We have long sought reauthorization legislation. We feel funding levels and program operations have suffered from the failure to reauthorize the Clean Water SRF and Drinking Water SRF, and believe that reauthorization will deliver a strong message that Congress remains committed to the State Revolving Funds. However,

we see little benefit from the legislation that would hamper our flexibility and burden communities we serve with barriers to their participation.

The success of this program derives from the flexibility of the SRF model, allowing each State to determine the most effective means to address individual local water quality issues. Efforts to mandate certain approaches or restrict the use of funds to particular types of projects fail to recognize that water quality needs vary and each State is in the best position to decide how best to meet those needs.

Mr. Chairman, we appreciate the opportunity to share our views and we look forward to working with the committee. Thank you very much.

[The prepared statement of Mr. Freeman follows:]

STATEMENT OF JOE S. FREEMAN, CHIEF, FINANCIAL ASSISTANCE DIVISION, OKLAHOMA WATER RESOURCES BOARD, VICE PRESIDENT, COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

I am Joe Freeman, Chief of the Financial Assistance Division of the Oklahoma Water Resources Board. I am testifying today on behalf of the Council of Infrastructure Financing Authorities in my capacity as Vice President. CIFA is the national organization of state officials involved in the financing of water and wastewater pollution control projects. CIFA members are responsible for management of the Clean Water and Drinking Water State Revolving Funds.

We welcome today's focus on the issue of financing water quality improvements. Hopefully, this hearing will signal a renewed effort to move forward in cleaning up our nation's water bodies and protecting drinking water sources.

While the progress made by States and the Federal government working in partnership to address water quality challenges has been considerable, it is hardly sufficient to meet the overwhelming need. All evidence points to a "Gap" that is large and growing. A survey of state CWSRF programs undertaken by CIFA in 2005 identified over 2,000 projects seeking loans requiring almost $9 billion in funding. In my state the city of Tulsa alone has needs of an estimated $194 million over the next 5 years. It is clear that at current funding levels a great many needed projects are not going to move forward anytime soon.

The past 5 years have not provided much encouragement in terms of the federal commitment to preserving and improving our water resources. Both House and Senate committees developed comprehensive legislation to reauthorize the State Revolving Funds, providing significant funding increases and program enhancements, only to see these efforts end in stalemate. Appropriations levels, at least with respect to the CWSRF, have been in a steady decline until that trend was reversed somewhat in the current fiscal year.

The State Revolving Fund programs are at a crucial juncture. The Congress has important choices to make as to their future. We believe the State Revolving Fund model remains the most effective and efficient means to provide assistance to communities to provide safe drinking water and achieve their water quality goals. In order for this very successful State-Federal partnership to continue to succeed, the federal commitment must be clear and sustained.

Since its inception, the CWSRF has achieved an impressive record of success in restoring this country's lakes, rivers and streams and protecting the health of its citizens. Since 1990 in Oklahoma, the CWSRF has loaned over $665 million for projects, providing over 65 percent of Oklahoma's wastewater financing. Nationally, over $60 billion in low interest loans has been awarded to finance the construction of thousands of projects across the country. These projects serve millions of people and treat billions of gallons of wastewater every day—wastewater that would otherwise destroy precious water resources and threaten the health of millions of people.

The CWSRF produces these environmental and economic benefits in an affordable way for the customers who use these projects. The low interest loans offered by the CWSRF significantly reduce the user rates customers have to pay and bring these rates in line with their ability to pay. The low interest rates offered by CWSRF loans funded over the life of the program translate into $18 billion in savings, compared with what they would be paying had these projects been funded with market rate borrowing. For a typical $10 million project with a CWSRF loan, the saving is $3.2 million. Since these interest savings are typically targeted at the most finan-

cially distressed borrowers, they represent a vital mechanism for bringing public health, environmental and economic development benefits to needy communities.

The Drinking Water State Revolving Fund, while a less mature program, has been a critical factor in bringing improved public health protection to close to 100 million Americans. Over $11 billion in loans and other assistance has been allocated to nearly 5,000 projects. Almost three-fourths of these loans have been to communities serving 10,000 or fewer people and over one-fourth have been to disadvantaged communities.

Let me turn to a few specific examples of what is being accomplished in my State of Oklahoma:

Since 1999, Oklahoma has made over $324 million available in DWSRF funding. Our DWSRF loan to Bartlesville, used to construct a 26 million gallon per day treatment plant, allowed the city to realize cost savings of almost $14 million, nearly a third of the total project cost. The Lawton Water Authority will experience similar savings as it constructs a water treatment plant with a capacity of 40 million gallons per day.

Our largest borrower is the City of Tulsa which is using the CWSRF program to implement a Comprehensive Wastewater Plan to rehabilitate aging infrastructure, meet capacity needs and comply with discharge permit requirements. By using the CWSRF, it is estimated Tulsa will save $59 million over 5 years.

As these projects illustrate, the State Revolving Funds are playing a vital role in helping Oklahoma communities improve water quality.

CIFA strongly supports maintaining the State Revolving Loan Funds as the foundation for future progress in meeting water infrastructure needs. Innovation, new approaches and new priorities can be addressed in the context of the SRF. We also believe restoring funding to at least pre-2004 levels is essential if we are to continue forward progress in meeting our nation's water quality goals. Hopefully, passage of SRF reauthorization will lay the groundwork for more realistic SRF funding levels.

As the Committee develops SRF reauthorization legislation, we hope you will be mindful of the perspectives of State program managers. Ultimately, it is up to each State to deliver on the goals of the Clean Water Act and it is vital that federal legislation help us do our job. We are very concerned that reauthorization could end up adding more burdens to the SRF programs than improvements.

State SRF managers, who participate in the State/EPA Workgroup that oversees the program, wrote the Chair and Ranking Member of this Committee this summer to express exactly that concern. Making reference to the House-passed reauthorization bill, H.R. 720, they warned,

> This bill contains provisions that will make the program considerably less effective and efficient for potential applicants. The large number of additional program and project requirements proposed by H.R 720 will result in additional work, time and expense, making it less likely that municipalities, especially small communities, will be able to afford to seek financing through the CWSRF. . . We ask that you carefully avoid provisions that would impose restrictions on state program flexibility or will add new burdensome requirements on potential applicants.

CIFA would certainly echo those concerns. We recognize the obligations and responsibilities of states in the SRF partnership. We must manage the funds in a fiscally responsible manner and be accountable. We must give priority in our loan decisions to the water quality benefits that will result and the urgency of environmental problems needing resolution. We need to give particular attention to the challenges faced by small, rural and disadvantaged communities. And, we must be creative financial stewards looking for innovative solutions to solve water quality problems.

We have long sought SRF reauthorization legislation. We feel funding levels and program operations have suffered from the failure to reauthorize the CWSRF and that reauthorization will deliver a strong message that Congress remains committed to the State Revolving Funds. However, we see little benefit from legislation that will hamper our flexibility and burden the communities we serve with barriers to their participation.

Certainly States must be fully accountable for their use of federal dollars but an excessive statutory overlay of mandates and set aides and operational requirements will only serve to stifle innovation and interfere with the ability of States to best respond to local needs. The success of this program derives from the flexibility of the SRF model allowing each State to determine the most effective means to address individual local water quality issues. Efforts to mandate certain approaches or restrict the use of funds to particular types of projects fail to recognize that water quality needs vary and each State is in the best position to decide how best to meet those needs.

I also want to note legislation recently introduced, S 1910, to provide for a change in arbitrage rebate rules that will make available significant additional funds for States that operate leveraged SRF programs. These States are currently forced by the arbitrage rules to limit and pay rebate on their earnings on those portions of the SRF funds which are considered under these rules to be bond proceeds. This reduces the resources available to provide financial assistance to communities. Applying the arbitrage rules in the case of SRFs does not make sense since by law these funds can only be used for the purpose of financing water and wastewater facilities and prompt lending is ensured by oversight and program audits by the EPA. Fixing this could mean a good deal more money for water infrastructure without additional appropriations and I hope members of this Committee will support that effort.

We very much appreciate the opportunity to share our views and look forward to working with the Committee.

RESPONSE BY JOE S. FREEMAN TO AN ADDITIONAL QUESTION FROM SENATOR LAUTENBERG

Question. Your testimony expressed concern about excessive mandates, set-asides, and operational requirements in reauthorization legislation. Please specify which mandates, requirements and set-asides in the House bill CIFA opposes.

Response. At the outset I want to make clear that CIFA supports the effort to reauthorize the Clean Water State Revolving Fund and increase the authorized level of funding for the CWSRF. The House bill. H.R. 720, contains many elements that we support including the continued reliance on the CWSRF as the primary funding mechanism for water infrastructure; expanded eligibilites for SRF funding; extended loan repayment periods; increased support to cover State administrative costs and more flexible financing to address affordability issues.

H.R. 720, however, has a number of provisions that would in our view work an unnecessary burden on State SRF programs and pose significant barriers to potential borrowers, especially smaller communities. They are as follows:

Section 302 (b) includes several "additional requirements" that are burdensome:

Innovative and alternative processes.—States are directed to require loan applicants to evaluate innovative and alternative processes, materials, techniques and technologies as well as alternative ways to finance and manage water infrastructure projects. This set of requirements will increase the cost of projects and is likely to drive potential borrowers away from using the CWSRF. It would be a particular burden for small communities who lack professional staff and would need to hire engineering/consulting services to do such evaluations.

CWSRF funded treatment works must comply with Clean Water Act Title II grant requirements.—A number of requirements in place prior to 1995 would again be imposed on the States. There is no evidence of adverse effects resulting from the absence of these requirements which would argue that they are not necessary. They would be costly, significantly encumber the efficient management of the SRFs and for the most part duplicate State standards already in place to accomplish the aims of Title II.

Procurement of engineering services by SRF borrowers to follow federal procurement rules.—States already have laws in place governing procurement of professional services. Since engineering services are usually obtained before financing, this requirement would likely only serve as an impediment for potential SRF borrowers.

Fees.—States would be inquired to use any fees charged either for the cost of administering or for the eligible purposes. This would place a new restriction on the use of fees, removing a key flexibility of the program. Presently, fees can be used for a range of water quality activities such as technical assistance to small communities, preplanning and application assistance, small grants for remediation of septic systems and pollution control. EPA guidance makes clear the use of fees is limited to activities furthering the goals of the Clean Water Act.

Section 303(c) As a loan condition require recipients to develop and implement a fiscal sustainability plan:

Fiscal Sustainability Plan.—While such plans can be useful tools for improving efficiency and reducing costs, CIFA is concerned as to what EPA may require of States to demonstrate compliance and whether this will significantly increase costs for borrowers. The provision fails to address the type or size of projects and whether such a plan would be appropriate for some projects.

RESPONSES BY JOE S. FREEMAN TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. How would the application of Davis Bacon to projects in Oklahoma affect the cost of administering the SRF as well as the cost of completing infrastructure projects?

Response. The application of Davis Bacon would significantly increase costs of administering the program and the costs of completing infrastructure construction projects as well as place the SRF program on non-competitive footing with other funding sources.

The implementation of Davis Bacon would greatly impact the OWRB administrative process and Oklahoma communities. When Davis Bacon was previously a part of the Construction Grants Program and the CWSRF, the wage rate was updated on a monthly basis. It was necessary to purchase a subscription to this monthly publication. Davis Bacon implementation would require that every plan and specification for a construction project have a continuously updated wage rate. If a project had gone out into the bid phase and the wage rate changed before bids were opened, an amended bid would be required to be sent to replace the previous wage rate. If a bid was accepted with non-current wage rates then the bid would be voided and a new bid process would be required. Both of these delays in construction are very costly to the community and to the OWRB. With the current trends in construction prices nationwide, delays of any kind greatly increase the total project cost.

According to past experience with Davis Bacon, the OWRB would be required to have a full time employee spend 50 percent of their time just on Davis Bacon administration including complaints, compliance, and contesting records.

The inclusion of the labor wage rate in the construction bids would also impact which contractors bid on CWSRF projects. Small contractors would realize a significant negative impact from the implementation of Davis Bacon in terms of employee payroll costs. Small contractors and large contractors would realize negative effects in terms of projects that were delayed due to compliance issues with Davis Bacon.

Question 2. Can you describe for the Committee Oklahoma's application process, including any state requirements with which an applicant must comply? Does this bundling of funds in any way add to the applicant's paperwork requirements?

Response. The bundling of funds does not increase the applicant's paperwork for an OWRB loan. The applicant will have to submit the correct documents for other Oklahoma funding agencies such as Community Development Block Grants, USDA Rural Development Grants, and other funding sources. However, we are very cognizant of this and try to use similar language and process in order to ease the application process. Enclosed is ore checklist and review of documents required for a loan application.

The only added state requirements for an applicant would be compliance with the Oklahoma Completive Bidding Act and Open Meeting Act.

LOAN APPLICATION REVIEW CHECKLIST

Initial	Date	
_____	_____	Loan added to IFS & Excel file by Supervisor
_____	_____	Computer file system set up in Word (entity name, loan #, finance, tech) by Analyst
_____	_____	L1 and engineering report to OWRB project engineer (If Drinking Water SRF, send engineering report & L1 to Brad Cook at DEQ. Retain a copy of the engineering report in the loan file.)
_____	_____	SRF ONLY - Civil Rights Form (4700-4) received from applicant – (Give original (including loan number & Analyst name) to Kathy Koon to send to EPA. Retain a copy in loan file.)
_____	_____	SRF ONLY - Civil Rights Form (4700-4) approval received from EPA **(before loan approval)**
_____	_____	SRF ONLY - Debarment Form (5700-49) received from applicant (with population of 10,000 or more for CW loans and all applicants for DW loans) **(must be received before Loan Closing)** & copy given to environmental specialist
_____	_____	L1 reviewed for eligibility (If SRF, pre-qualify financially. If DWSRF, cc DEQ on all correspondence.)
_____	_____	Application fee received
_____	_____	L2, Attachments I – III/IV, and supporting documents received
_____	_____	L2, Attachments I – III/IV, and engineering report to OWRB project Engineer (If DWSRF, give copy of L2, attachments, and engineering report to Brad Cook.)
_____	_____	L2 reviewed
_____	_____	Income statement comparison prepared & saved at S:\lotusdat\compare
_____	_____	If entity has existing FAP loan(s), are arbitrage rebate calcs up-to-date? If not, request calcs. If calcs not completed, request copy of contract with accountant hired to perform calcs. **(Must receive calcs or contract before loan closing)**
_____	_____	Water Rights Permit review sent to OWRB Planning & Mgmt Division
_____	_____	Water Rights Permit review completed by OWRB Planning & Mgmt Division and returned to Analyst
_____	_____	Engineering approved by OWRB
_____	_____	Engineering approved by DEQ
_____	_____	S&P Packet, Board Order and Packet prepared
_____	_____	Notice and Approval letters prepared (If CWSRF, LOBC reviewed and revised. If DWSRF, approval memo prepared.)
_____	_____	Presented at Division meeting
_____	_____	IFS checklist completed by Analyst before Board Meeting
_____	_____	Email DEQ's project engineer (cc Brad Cook and Andy Callaway) these dates (DWSRF loans only) – L1 approval date (L1 review completion date), L2 approval date (date S&P Packet, Board Order & Packet prepared) & Loan review checklist completion date (date presented at Division meeting)

CWSRF LOAN CLOSING CHECKLIST FOR _____, Closing Date _____

Note: This checklist should be completed within 3 days of loan closing

BEFORE CLOSING

Get Original Board Orders from expanda-file in file room - 1 for Bond Counsel & 1 for OWRB Post-closing file

Review the loan files and/or check with the Environmental Specialist or Staff Engineer to make sure the following items have been submitted:
1. DEQ Construction Permit
2. Electronic Funds Transfer Authorization Completed
3. Civil Rights Compliance Form Approved By EPA (EPA Form 4700-4)
4. Site Certificate

Check with Staff Attorney for receipt of Intercreditor Agreement (Parity Approval Agreement), if applicable

Call Borrower for Exception Items **(Items must be received before loan closing date)**

If Formal Closing, Make Sure Chairman & Secretary of the Board Will Be in Attendance to Execute & Seal Documents

Prepare Safe-Keeping Receipt - Form 31

Contact Borrower to make sure a separate bank account has been opened for payment requisition deposits and account is listed on the EFT form

Give original EFT form and voided check to Laura, keep a copy of the EFT form and the check

Prepare one Closing Letter – "After Closing"

Review Loan Agreement to make sure maximum loan term does not exceed 20 years from construction completion

Prepare Loan Agreement Requirements Summary w/correct loan agreement references (Excel at s:\shared\forms\loans\general financial\exceptions summary – Authority or - District)

AT CLOSING

Review Project Payment Requisition form and procedures

Discuss Semi-annual loan payment process w/Borrower – payments sent to BancFirst per payment letter

Review After Closing Letter with Borrower

Gather documents noted below from Bond Counsel
- Original Promissory Note - 1
- Copy of Promissory Note - 1
- Bond Counsel Opinion - 2
- Loan Agreement - 1
- Closing Order – 2
- Applicant Questionnaire - 1

☐ Give an original Board Order to Bond Counsel for Transcript of Proceedings

☐ If informal closing, attend pre-construction conference to discuss loan covenants, explain drawdown and semi-annual loan payment processes.

☐ If informal closing and no pre-construction conference, schedule a meeting within 2 weeks of loan closing to discuss loan covenants, explain drawdown and semi-annual loan payment processes.

AFTER CLOSING

Take original promissory note, bond counsel opinion, and closing order to Deena Suddath, Janet Lambert, or Debi Poe at BancFirst if loan is pledged

Take SRF Safe-keeping Receipt (Form 31) and Original Promissory Note to State Treasurer's Office if loan is not pledged

Put a copy of Promissory Note & Loan Agreement in Expanda-Files in File Room

Analyst to also do the following:
1. If existing entity, add exceptions due dates to old database and update new database, if necessary.
2. If new entity, add exceptions due dates to IFS and old database
3. Prepare or update Cover Sheet and enter/update contacts in IFS database
4. Organize Post-Closing Loan File and have Working File Archived
5. Add new loan and loan payment to operating statement spreadsheet in Excel for entities with existing OWRB loans
6. E-mail loan number, closing date, and entity name to Division Secretary
7. E-mail loan number, entity name, closing date, collateral, loan amount, and contact names (cc – clerk/city mgr) for payment letters to Laura
8. Add Loan to Loan Name & # List at s:\shared\lists\loans financial\loans&#.wpd
9. File a copy of the S&P Packet under the Credit Analysis and Memoranda tab
10. File a copy of the EFT form and the voided check under the Post Closing tab
11. Give Post-Closing loan file to Angela for review

Angela to Add Borrower to the following lists:
1. Word files
   a. Loan/Bond Counsel at s:\shared\lists\loans financial\loans bond counsel 2
   b. UCC Due Date at s:\shared\lists\loans financial\ucc.fa
   c. Indenture Order at s:shared\lists\loans financial\indentur.ord
   c. CW Notes List at s:\shared\lists\loans financial\CWSRF Notes at BancFirst if loan is pledged
2. Excel Files
   a. Loan Status at s:\shared\lists\status.xls
3. Loan Databases
   a. Enter loan closing date, fixed rate, and actual loan amount in RBase
   b. Enter info in IFS database

Senator LAUTENBERG. Thank you very much.
Mr. Westhoff.

STATEMENT OF CHRISTOPHER M. WESTHOFF, ASSISTANT CITY ATTORNEY, PUBLIC WORKS GENERAL COUNSEL FOR THE CITY OF LOS ANGELES, PRESIDENT OF THE NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES

Mr. WESTHOFF. Thank you. Good morning, Chairman Lautenberg and members of the subcommittee. My name is Christopher Westhoff. I am an assistant city attorney and public works general counsel for the city of Los Angeles. I am president of the National Association of Clean Water Agencies and a member of the Water Infrastructure Network. NACWA represents the Nation's public wastewater treatment agencies, environmental stewards who treat and reclaim more than 18 billion gallons of wastewater each day.

Thank you for holding this important hearing. With the 35th anniversary of the Clean Water Act just around the corner, this hearing and your leadership on environmental issues are both timely and fitting as we face some serious challenges moving into the 21st century. In order to meet these challenges, all levels of government—Federal, State, and local—must develop a lasting partnership that recognizes the need for more investment in our Nation's clean water infrastructure.

While the Clean Water Act has been hugely successful in helping us meet our clean water objectives, we must not stop and pat ourselves on the back for a job well done. The job is far from finished. In 1972, Lake Erie was declared dead by "Time" magazine, and the burning Cuyahoga River became a poster child for Federal action in the form of a tougher Federal law and unprecedented infusion of Federal money which helped cities begin to meet the Nation's water quality challenges. Today, our rivers, lakes, and estuaries are much cleaner as a direct result.

In the formative years of the Clean Water Act, the Federal Government invested more than $72 billion to help cities treat their wastewater. Federal assistance for wastewater infrastructure has declined more than 70 percent since 1980. This has contributed to a funding gap of between $300 billion and $500 billion over the next 20 years. Local communities now pay more than 95 percent of the cost of meeting their Clean Water Act obligations and, in effect, are on their own to address the ever-increasing challenges of aging infrastructure, population growth, demands for better service, and more expensive Federal regulations. Clean Water ranks second only to education in terms of how local governments spend their money.

In the 1990s alone, the city of Los Angeles spent over $1.6 billion on the upgrade of the Hyperion Treatment Plant to full secondary treatment. This is only one plant, and only a small portion of this expenditure was funded through the Federal Clean Water Grant Program. In this decade, Los Angeles will spend more than $4 billion to address the physical needs of its aging 6,500 mile long sewage collection system and other wastewater infrastructure, and there is no Clean Water Grant Program to help. To cover these costs, rates have been raised 7 percent per year for each of the past

5 years, and in 2008 we will ask our city council for a nearly 9 percent increase for each of the succeeding 5 years.

This financial situation is untenable. EPA has stated that if the infrastructure funding gap is not addressed soon, the water quality gains we have seen over the past 35 years could be erased by 2016.

To address this funding crisis—and this is a crisis—NACWA and WIN believe the Federal Government should recommit itself to clean water and the ideals that led to the passage of the Clean Water Act in 1972. We believe this involves a viable, long-term dedicated source of revenue to bridge the ever-growing funding gap. The best way to accomplish this is through a Federal Clean Water Trust Fund. Clean and safe water is no less a national priority than a safe and efficient system of highways and airports, both of which enjoy sustainable, long-term sources of Federal investments.

As a first step, NACWA and WIN strongly recommend that the Senate introduce and pass legislation similar to the Water Quality Financing Act of 2007. This bill passed the House in a vote of 303 to 108, and would provide $14 billion over 4 years for the Clean Water State Revolving Fund and would require the GAO to study revenue sources for Clean Water Trust Fund. NACWA and WIN also support the inclusion of funding for pilot projects that incorporate green infrastructure as a cost-effective way to address the challenges of wet weather. We would hope that Congress would pass such legislation by October 18 to commemorate the passage of the original Clean Water Act 35 years ago.

Cities cannot meet these financial challenges alone. Municipalities have already raised fees on average by more than twice the rate of inflation for the past 5 years.

Mr. Chairman, if you ask some of our members, they will tell you they have to increase their rates by more than 15 percent per year to meet the growing demand for wastewater infrastructure funding.

The world around us has changed significantly since 1972, from growing and shifting populations to the emergence of new pollutants. NACWA and WIN encourage the committee to seek innovative approaches and appropriate funding to help achieve water quality goals in the face of these new challenges. "Water is water" is what we hear from many of our stakeholders. The result of this very real concept certainly signals the need for a new watershed based approach to dealing with this invaluable resource that better equips us to meet head-on new complicated and expensive challenges in the water quality arena.

During deliberations of the original Clean Water Act, Congress decided that water infrastructure was a national asset that demanded Federal investment. Without this investment, we seek a perfect storm brewing at the local level. We must not allow this storm to push gains made in water quality back to pre-1970 levels.

The image of the Cuyahoga River on fire is forever etched in our collective memory. We must not allow the Nation's great waterways to again become the poster children for a Nation's water quality in crisis. Whether it is the Potomac, the Chesapeake Bay, the Mississippi River, the Great Lakes, or my own California coastal waters, the point is simple: the Federal Government must join States and municipalities as full-fledged long-term partners in funding the Nation's clean water infrastructure. Your leadership,

Mr. Chairman, and the foresight of this committee's members can make such a partnership a reality again.

Thank you for your time and allowing NACWA and WIN to share their views on clean water funding, and I would be happy to answer any questions.

[The prepared statement of Mr. Westhoff follows:]

STATEMENT OF CHRISTOPHER M. WESTHOFF, PRESIDENT, NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES (NACWA)

INTRODUCTION

Good morning, Chairman Lautenberg and Members of the Subcommittee. My name is Christopher Westhoff and I am an Assistant City Attorney and public works general counsel for the City of Los Angeles. I am testifying today on behalf of and as the President of the National Association of Clean Water Agencies (NACWA) and as a member of the Water Infrastructure Network (WIN). NACWA is the only organization dedicated solely to the interests of the Nation's public wastewater treatment agencies. Our members are dedicated environmental stewards who work to carry out the goals of the Clean Water Act and to treat and reclaim more than 18 billion gallons of wastewater each day. WIN is a broad-based coalition of local elected officials, drinking water and wastewater service providers, state environmental and health administrators, engineers, environmentalists, and labor advocates dedicated to preserving and protecting the health, environmental and economic gains that America's drinking water and wastewater infrastructure provides.

I am pleased to be here and thank you for holding this important hearing examining the state of our nation's critical water infrastructure, which protects our vital water resources, improves public health, and provides recreational enjoyment for all Americans. With the 35th anniversary of the Clean Water Act just around the corner, this hearing and your record of leadership on environmental issues are both timely and fitting as we face some serious challenges moving into the 21st century. In order to meet these challenges and ensure continued water quality improvements, all levels of government—federal, state, and local—must develop a lasting partnership that recognizes the need for more investment in our nation's clean water infrastructure.

AS FEDERAL FUNDS DECLINE, THE LOCAL COST OF CLEAN WATER RISES

While the Clean Water Act has been hugely successful in helping us meet our clean water objectives, we must not stop and pat ourselves on the back for a job well done. Unfortunately, the job is far from finished. There is no doubt about the record of environmental achievement in the 35 years since the Clean Water Act became law. In 1972, Lake Erie had been declared dead by "Time" magazine, and the burning Cuyahoga River became the poster child for federal action—action in the form of a tough federal law and an unprecedented infusion of federal money which, together with state and local contributions, helped POTW's across America begin to meet the Nation's water quality challenges. Today our rivers, lakes, and estuaries are much cleaner as a result.

The federal government has invested more than $72 billion since 1972 to help cities build publicly owned treatment works (POTWs). This investment in clean water has not come at the expense of economic growth. Quite the contrary. Economic growth has gone hand in hand and, indeed, has been enhanced by this investment. However, despite the huge sums spent to meet our clean water goals, our Nation now faces serious long-term funding shortfalls to meet its vital water and wastewater infrastructure needs.

Federal assistance simply has not kept pace with needs, declining more than 70 percent since 1980. The Nation now faces a funding gap of $300 billion to $500 billion over 20 years between current levels of spending for wastewater infrastructure and total funding needs, according to the U.S. Environmental Protection Agency

(EPA),[1] the Congressional Budget Office,[2] and WIN[3]. Little has been done since these estimates were released, and the picture has not improved with the passage of time.

Local communities now pay more than 95 percent of the cost of meeting their Clean Water Act obligations, according to a recent report by the U.S. Conference of Mayors[4]. In effect, these communities are on their own to address the ever increasing challenges of aging infrastructure, a growing population, expectations of higher quality service, and more expensive federal regulations to address wet weather, emerging contaminants, nutrient removal, total maximum daily loads (TMDLs), and other demands for limited resources. Clean water ranks second only to education in terms of how local governments are spending their money.

In the 1990's alone, Los Angeles spent over $1.6 billion on the upgrade of the Hyperion Wastewater Treatment Plant to full secondary treatment. This was only ONE plant, and only a small portion of this expenditure was funded through the Federal Clean Water Grant Program. In this decade, Los Angeles will spend more than $4 billion dollars to address the physical needs of its aging 6,500 mile long wastewater collection system and other wastewater infrastructure. To meet this aggressive expenditure program, rates have already been raised 7 percent per year for each of the past 5 years, and in 2008, our infrastructure team will ask our City Council for a nearly 9 percent rate increase for each of the succeeding 5 years.

This financial situation is untenable. With local governments shouldering so much of the financial burden and having limited options for further financing, we risk losing ground in the battle for clean water. In fact, EPA has stated that if the infrastructure funding gap is not addressed soon, the water quality gains we have seen over the past 35 years could be erased by 2016. Already, the physical condition of our treatment plants, equipment, and other capital improvements in many of the nation's 16,000 wastewater treatment systems has suffered because of the lack of resources to pay for upgrades and the replacement of pipes and treatment systems.

The EPA also reports that more than 40 percent of the Nation's assessed waters remain impaired, with the majority of this impairment caused by nonpoint sources of pollution. Furthermore, our growing population, which is expected to add another 100 million people over the next three decades, coupled with increasing industrial output further stresses our aging clean water infrastructure.

FUNDING THE CLEAN WATER ACT

To address this funding crisis—and this is a crisis—NACWA and WIN believe the federal government should recommit itself to clean water and the ideals that led to the passage of the 1972 Clean Water Act. We believe such a recommitment should involve a viable long-term, dedicated source of revenue to bridge the clean water infrastructure funding gap. In short, we think the best way to accomplish this is through the establishment of a federal clean water infrastructure trust fund that would provide a reliable source of financial assistance for the construction and repair of water and wastewater infrastructure. Clean and safe water is no less a national priority than an adequate system of interstate highways and a safe and efficient aviation system. If these other highly important infrastructure programs enjoy sustainable, long-term sources of federal investment, water and wastewater infrastructure should as well.

As a first step toward a long-term funding solution, however, NACWA and WIN strongly recommend that the Senate introduce and pass legislation that mirrors the Water Quality Financing Act of 2007. This bill, which passed the House in an overwhelming 303-108 vote, would provide $14 billion over 4 years for the Clean Water State Revolving Fund (CWSRF) and would require a GAO study of revenue sources for a clean water trust fund. We would hope Congress would pass such legislation by October 18 to commemorate the passage of the original Clean Water Act 35 years ago.

The need for additional, viable revenue streams is even more important when considered in the context of the Administration's approach for overcoming the funding gap. This approach, referred to as the "Four Pillars," includes better utility manage-

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[1] U.S. Environmental Protection Agency, The Clean Water and Drinking Water Infrastructure Gap Analysis (2002) *http://www.epa.gov/safewater/gapreport.pdf.*

[2] Congressional Budget Office, Future Investment in Drinking Water and Wastewater Infrastructure (November 2002); *http://www.cbo.gov/ftpdoc.cfm?index=3983&type=0&sequence=0*

[3] Water Infrastructure Network, Clean and Safe Water for the 21st Century (2000); *http://www.win-water.org/reports/winreport2000.pdf.*

[4] U.S. Conference of Mayors, Who Pays for the Water Pipes, Pumps and Treatment Works?—Local Government Expenditures on Sewer and Water—1991–2005 (*http://www.usmayors.org/urbanwater/07expenditures.pdf*)

ment, water conservation, full-cost pricing, and the reliance on watershed planning. While NACWA believes these practices are beneficial, they ultimately boil down to the federal government washing its hands of the matter and putting the burden entirely on the shoulders of local governments. In essence, the Administration's approach assumes the federal government has no role, and if local governments charge more and implement the other elements of the Four Pillars, the funding gap vanishes. This is simply not the case.

According to NACWA's annual Rate Index, municipalities have already been forced to raise the average residential user service charge at twice the rate of inflation for the past 5 years, and many utilities are raising their rates by double-digits. Mr. Chairman, if you ask some of our members, they will tell you that they are having to increase their rates by more than 15 percent per year to meet the growing demand.

NACWA, through its Clean Water Funding Task Force, has done extensive research regarding public perception on clean water funding and how best to overcome the gap. More than 91 percent of Americans, when made aware of this gap, overwhelmingly support federal legislative action to guarantee the water quality of the Nation's rivers, lakes, streams, and bays. Polling data also show that the vast majority of Americans would support a dedicated revenue source for clean water infrastructure structured similarly to those that exist for highways and airports and that Americans are willing to pay out of their own pockets to do so.

NEW CHALLENGES IN THE 21ST CENTURY

The world around us has changed significantly since 1972, from swelling and shifting populations to the emergence of new pollutants that have the power to change the course of nature. NACWA and WIN encourage the Committee to seek innovative approaches, with appropriate funding, to achieving water quality goals in the face of these emerging challenges. The federal government currently supports technology research and development through EPA programs and Congressional appropriations to non-profit research foundations. Yet, none of these programs focuses specifically on infrastructure and non-traditional solutions. Innovative and alternative approaches are needed to reduce nutrient pollution, improve methods for conserving and reusing water, improve monitoring and data analysis, reduce nonpoint sources of water pollution, reduce municipal stormwater pollution, reduce sanitary sewer and combined sewer overflows, address new water resource management issues presented by climate change, and develop more effective methods for treating wastewater—including "green technology," conservation easements, stream buffers and wetlands.

Integrated strategies to managing drinking water, wastewater and stormwater issues such as water reuse, water conservation, and energy efficiency through a meaningful watershed management approach are critical to achieving sustainability. Green technologies too are becoming increasingly accessible and commonplace. "Water is water" is what we hear from many of our stakeholders. The ramifications of such thinking are many and broad, signalling the need for a new approach to water quality that better equips us to deal with new, complicated, and expensive challenges.

CONCLUSION

During deliberations of the original Clean Water Act, Congress decided that water infrastructure was a national good that demanded federal investment. The American people agreed as more than 20 million participated in the original Earth Day activities in 1970. Although consensus still exists in the form of broad public support for federal action, the federal commitment to clean water investment continues to wane. This trend is inexplicable in light of the ever-increasing costs to comply with new federal requirements and enforcement actions. On top of it all, the escalating cost and unanticipated price increases for materials, experienced consultants, engineers, and utility staff are creating the "perfect storm" for wastewater utility managers at the local level. We must not allow this storm to push gains made in water quality back to pre-1970 levels.

The image of the Cuyahoga River on fire is forever seared in our collective memory. It helped illuminate the plight facing our precious waterways and inspired our Nation to act and act decisively. We must not allow the nation's great waterways to again become the poster-children for a Nation's water quality in crisis. Whether it is the Potomac, the Chesapeake Bay, the Mississippi River, the Great Lakes or California's coastal waters, the point is simple: the federal government's failure to join states and municipalities as a full-fledged, long-term partner in funding the Nation's clean water infrastructure will have unacceptable consequences. Your leader-

ship, Mr. Chairman, and the foresight of this Committee's members can make such a partnership a reality again. Thank you for your time and for allowing NACWA and WIN to share their views on clean water funding for the 21st century. I would be happy to answer any questions.

RESPONSE BY CHRISTOPHER M. WESTHOFF TO AN ADDITIONAL QUESTION FROM SENATOR INHOFE

Question. In the 107th Congress, bipartisan legislation was introduced to reauthorize both SRFs. NACWA (NA–CWA), then the Association of Metropolitan Sewerage Agencies, testified about that bill stating "They [the bill authors) suggest that . . . Congress does not have confidence in our management skills and believes we are not charging Americans enough for their water, and that the states and EPA need to micromanage our operations." Many of the provisions in H.R. 720 said the same message and yet, NACWA has urged us to pass that legislation. Does your organization believe we should place additional requirements to be met by applicants for loans?

Response. When NACWA, then the Association of Metropolitan Sewerage Agencies (AMSA), made the statement quoted in this question, the legislative language at issue in the 107th Congress's SRF funding bill, S. 1961, was much broader than in H.R. 720. Specifically, S. 1961 required municipalities to prepare, as a condition to SRF funding, new asset management repair and replacement plans; new and potentially far-reaching physical and operational analyses of systems; as well as an analysis of the cost-effectiveness of alternate financing approaches, including a plan to have rate structures reflect the actual "cost of service"—a term that S. 1961 did not define. The breadth and details of these plans were left largely up to EPA and State authorities and centered on decisions that by their nature should remain at the local level.

H.R. 720 scales these requirements back significantly, clarifying that municipalities need to certify that they have "studied and evaluated innovative and alternative processes, materials, techniques, and technologies for carrying out the proposed project." This provision seeks to ensure that new 21st century approaches, such as green infrastructure and energy saving techniques, are considered in the SRF funding process—a goal NACWA supports. H.R. 720 also contains a certification requirement that municipalities must have "considered the cost and effectiveness of alternative management and financing approaches for which assistance is sought." Unlike S. 1961, this provision does not specifically call on utilities to perform costly analyses or open municipal decisions up to a time-consuming and unnecessary State and/or EPA review process, which could significantly hamper the very purpose of the SRF program—to get money to municipalities as quickly as possible to perform much-needed wastewater infrastructure projects.

NACWA's public agency members are the leaders in implementing competitive asset management techniques and strongly believe asset management involves site-specific considerations that ought not to be the subject of federal legislation. The approach taken in H.R. 720, however, takes a sensible approach. It balances the needs to get funds as swiftly as possible to municipalities to perform much-needed infrastructure projects with the understandable objective of ensuring that these funds are going to go, as H.R. 720 states, to projects that "result in greater environmental benefit."

RESPONSE BY CHRISTOPHER M. WESTHOFF TO AN ADDITIONAL QUESTION FROM SENATOR CARDIN

Question. The EPA Inspector General recently released a report about the effects of sprawl development on the restoration efforts in the Chesapeake Bay. In summary, the report suggests that the increase in polluted stormwater runoff that accompanies the influx of new residents in the watershed is overwhelming the gains being make in other areas to improve water quality. What steps is Los Angeles taking to make sure that investments in wastewater infrastructure are actually resulting in a net gain in water quality? Do you direct development into areas already served by existing wastewater infrastructure, or do your give priority funding to such areas? Should EPA or the State require such a condition on the use of federal or state money?

Response. NACWA believes that local governments are in the best position to determine their own development and balance that with environmental concerns. Usually, areas that are growing can pay for their own growth so federal funds are able to be delivered to those areas that need it to upgrade existing wastewater infra-

structure. NACWA believes the delivery system for federal funds, namely through state priority lists, works well and is not in need of major changes at this time.

Los Angeles, for better or worse, does not have a large amount of undeveloped land suitable for large developments within its borders. However, any development of multiple single family homes, muti-family residences or commercial property, whether constructed as an "in-fill" development or built on previously undeveloped land, requires an analysis of existing wastewater infrastructure (sewer pipes) for available capacity to service the new construction. If deemed necessary, the developer is required to provide "off-site" mainline sewers to connect to other existing collection system pipes where sufficient capacity exists to take the sewage to the City's treatment plants. Where sufficient sewer capacity already exists, the developer still pays a fee for that capacity. When the development is finished and the individual properties are sold to new owners, those new owners will continue to pay fees on a monthly basis to cover their portion of the O and M and future capital costs of the City's entire wastewater collection and treatment system.

Los Angeles as co-permittee under a County-wide Stormwater permit has a comprehensive Standard Urban Stormwater Mitigation Program ("SUSMP") where each new development is reviewed and required to "mitigate" any additional urban runoff contributed by the new development. The development must be designed to keep at least the first ¾ of an inch of rainfall onsite ("first flush") and also mitigate potential pollutants exiting their site by the use of catch basin inserts or other filter type devices.

Senator LAUTENBERG. Thank you very much.

Ms. Stoner.

STATEMENT OF NANCY K. STONER, DIRECTOR OF THE CLEAN WATER PROJECT AT THE NATURAL RESOURCES DEFENSE COUNCIL

Ms. STONER. Good morning, Mr. Chairman and members of the subcommittee. My name is Nancy Stoner, and I am the director of the Clean Water Project at the National Resources Defense Council. I am delighted to be invited to testify here today and to hear the broad bipartisan support we have among the committee and subcommittee members who have been here today for clean water funding.

I would like to ask to have my full statement be put in the record, but I did bring a few photos that I wanted to share with you today, and hope you would appreciate the informal approach.

Senator LAUTENBERG. Without objection, they will be included.

Ms. STONER. Thank you.

The first point has been made already and well recognized by the members of the committee and subcommittee here today, that there is a Federal role for clean water funding. Water pollution, of course, knows no political bounds, and it is not fair to downstream communities to have to pay for upstream pollution that those communities choose not to address. Americans need to be able to go across the country and know that the tap water is safe to drink everywhere, the waters are safe to swim in everywhere, and the fish is safe to eat. Congress has looked at this question many times and viewed it the same way every time. There is a Federal role complimentary to those of State and local entities in funding wastewater infrastructure.

Of course, it is an excellent investment. Again, several speakers have spoken on this already today. The investments we have had over the past 20 years in the State Revolving Fund have improved the environment, have protected public health, and added to local economies. The photograph there is the installation of permeable pavement by construction workers in Portland. I put that up to em-

phasize the fact that green infrastructure, like the more traditional ways of controlling wastewater that have been used, provide jobs for small businesses, for entrepreneurs, for architects, for maintenance workers, for construction workers, landscape architects. It is part of the fabric of our economy that we need to support.

Despite the investments that we have made and the progress that we have made, water pollution problems are growing. There are a number of indicators that are showing negative trends, including beach closings, red tides, dead zones, and the like here. As several witnesses have also mentioned, global warming is projected to exacerbate those negative trends. The chart here shows EPA's predictions of what would happen in terms of sewage pollution. If we stay on the current path, it shows that those levels of oxygen-depleting substances from sewage would reach the same levels in 2025 that they were in 1968, before the passage of the Clean Water Act, which is obviously very disturbing.

Even though the problems are growing the Federal funding is shrinking. The two lines there, the blue one is one that we discussed earlier today, about the Presidential budget for green infrastructure. The red line is the funding that has been provided by Congress. Am very pleased to see earlier this year that Congress did increase the funding for the SRF for Fiscal Year 2007, and there is a choice pending now before the Senate whether to continue that increase or to adopt a number closer to the President's budget. We, of course, would urge you to speak with your appropriations colleagues and other colleagues to fund at the $1.125 billion that is the House number for this year.

So the solution that we see is basically more money better spent. The photo there is of a restored wetland in Houston, TX. This is one form of green infrastructure. We would like to see substantially increased funding in general for the SRF over the next 10 years and better targeting of the resources to achieve water resource protection goals, as well as an increase in research and develop funding to move us to the new plane where we will have the technologies that can best address the Nation's problems.

To increase efficiency of SRF spending, there are several different things that we suggest: funding existing needs, not sprawl; funding green infrastructure that achieves more for each dollar spent; funding the highest priorities, looking at those from an integrated water resource perspective; as I mentioned, increased R&D funding; and increased public involvement and transparency to get better results.

The photo there is from the Navy Yard here in D.C., and it shows what can be done even with a very small amount of space to capture and treat the stormwater runoff from parking lots.

One of the pieces of this is increasing the funding for green infrastructure. What it does is use soil and vegetation to manage urban and suburban runoff. It is essentially mimicking the functions that are provided by mother nature in a natural environment for free, and it is a compliment to the pipes and pumps and treatment plants that are, of course, also essential and part of the hard infrastructure. The photo is of a street edge alternative in Seattle. This is not just beautiful, it captures 99 percent of the stormwater runoff. It actually has not discharged from this area since December

2002. It is very popular. The people in the neighboring neighborhoods want this in their neighborhood as well. It increases property values and beautifies the neighborhood.

One of the things about green infrastructure is that the benefits are multimedia, which makes it a little difficult to fit within the regulatory system that we have, but there are a wide range of benefits, including the economic benefits that I mentioned earlier. This is a picture of a rain garden in Maplewood, MN.

As I mentioned, another priority is not just funding things that need to be funded, but not funding things that do not make water pollution better. It is very well documented at this point that development and the payment associated with it increases runoff, decreases water quality, and reduces groundwater recharge. So it actually adds to the long-term pollution burden to fuel greenfield development. Yet, we spent, last year it was 19 percent of the SRF, on new sewers. We are not saying that development won't happen, but we are saying it should not be a priority in terms of Federal funding and should not be subsidized by the Federal Government through the SRF.

In summary, our recommendations are substantially increased funding for the next 10 years; clarify the eligibilities to ensure that we can fund everything we want to fund at the highest priorities; provide incentives for the most beneficial approaches, including green infrastructure in subsidies for sprawl; increase public involvement; increase funding for research and development.

The last photo there is a green roof in Irvine, CA.

I thank you.

[The prepared statement of Ms. Stoner follows:]

STATEMENT OF NANCY K. STONER, DIRECTOR, CLEAN WATER PROJECT, NATURAL RESOURCES DEFENSE COUNCIL

Good morning, Mr. Chairman, and members of the Subcommittee. I am Nancy Stoner, Director of the Clean Water Project at the Natural Resources Defense Council (NRDC). Thank you for holding this hearing today on meeting America's wastewater infrastructure needs. This is a tremendous opportunity for the Congress to step up federal investment in wastewater infrastructure and to spend smarter so that the U.S. will ensure that there is clean, safe, usable water for the next generation.

The federal government's investment in wastewater treatment and water resource protection over the 35 years since the Clean Water Act was passed in 1972 has brought tremendous progress in cleaning up our waterways. Yet, the issue of whether there is a federal role in wastewater infrastructure investment is a recurring question. I believe that issue was resolved appropriately by Congress in 1972. Water pollution knows no political bounds. Failure to protect water resources in one state pollutes downsteam surface and groundwater resources in neighboring states. That's why Congress passed the Clean Water Act in the first place and why the federal role is so important. For example, for the past 17 years, NRDC has prepared a report analyzing beachwater quality in coastal states across the U.S., called *Testing the Waters*. In 2006, there were more than 25,000 beach closings and advisories in the U.S., and the largest known causes were contaminated stormwater and sewage, two of the pollution sources the remediation of which is eligible for funding by the Clean Water SRF.[1] It would be unfair for coastal communities to have to shoulder the cost of cleaning upstream sources of beachwater contamination because there is no federal funding to assist upstream communities to make investments in controlling those sources.

The Clean Water SRF has always been and continues to be a good investment. Projects funded by the Clean Water SRF provide water quality and community ben-

[1] NRDC, *Testing the Waters-A Guide to Water Quality at Vacation Beaches*, p. 1 (August 2007), available at *http://www.nrdc.org/water/oceans/ttw/ttw2007.pdf.*

efits, such as reduced discharges of raw sewage into rivers and lakes, less waterborne illness, enhanced wildlife habitat biodiversity, and more plentiful and safer drinking water sources.[2] It also protects businesses that are dependent upon clean water, such as tourism, fish and shellfish harvesting, the beverage industry, and high tech manufacturing. SRF funded projects create more than 400,000 jobs each year throughout the Nation while providing other economic benefits for local communities.[3] Very little current Clean Water SRF funding goes to green infrastructure, which applies natural systems or designed or engineered systems that use soil and vegetation to mimic natural processes to protect and enhance environmental quality and provide utility services. However, where it is being employed, green infrastructure creates jobs for architects, designers, engineers, construction workers, maintenance workers, and a variety of small businesses engaged in designing and building green roofs, rain gardens, tree boxes, and other types of green infrastructure.[4] And both the clean waterways themselves and the green infrastructure that keeps them clean increase property values, revitalize blighted neighborhoods, enhance street life and community aesthetics, and provide free recreation.[5] Because it is matched at the state and local levels, the Clean Water SRF leverages non-federal investment at a rate of 2.23 times the federal dollar.[6]

But it is clear that the level of U.S. investment in clean water is inadequate. There is an upward trend for beach closings, red tides, dead zones, droughts, flooding, coral reef damage, nutrient pollution, and sewage pollution.[7] At our current rate of investment, U.S. EPA has projected that sewage pollution will be as high in 2025 as it was in 1968—before the passage of the Clean Water Act—that is, when Lake Erie was declared dead and the Cuyahoga River was on fire.[8] In addition, global warming is anticipated to have adverse effects on available freshwater resources. For example, NRDC's recent report, In Hot Water, projects that global warming will decrease snowpack in the West, reduce water supplies, increase the magnitude and frequency of floods and droughts, and degrade aquatic habitat by reducing stream flows and increasing the temperature of waterways.[9]

Even while the problems are growing, federal contributions to the SRF are shrinking, the funding gap is almost $20 billion annually, and both public and private investment in wastewater technology research and development that could save money in the long run is less than half of what it was in the 1970s.[10] This year, after a promising start by restoring SRF funding to more than $1 billion for FY07, the Senate appears poised to adopt a funding cut of more than $200 million from

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[2] *http://www.epa.gov/owm/cwfinance/cwsrf/factsheets.htm*; U.S. EPA, *Financing America's Clean Water Since 1987: A Report of Progress and Innovation*, EPA–832–R–00–011, pp. 9–10 (May 2001), available at *http://www.epa.gov/ownitnet/cwfinance/cwsrf/progress.pdf*.

[3] AFSCME, et al., *All Dried Up: How Clean Water is Threatened by Budget Cuts*, p. 1 (2004). Available at *http://www.nrdc.org/media/docs/040915.pdf*.

[4] *http://www.treepeople.org/trees/default.htm* (projects creation of 50,000 new jobs from green infrastructure initiative)

[5] NRDC, *Rooftops to Rivers: Green Strategies for Controlling Stormwater and Combined Sewer Overflows (June 2006)*.

[6] U.S. EPA, Clean Water State Revolving Fund Programs-2006 Annual Report, p.18, available at *www.epa.gov/owm/cwfinance/cwsrf/2006-annual-report.pdf*.

[7] NRDC, Testing the Waters, pp. 1–2 (reporting annual percentage increase in beach closing and advisory days); Woods Hole Oceanographic Institute, *Harmful Algal Research and Response: A National Environmental Science Strategy* 2005–2015, available at *www.esa.org/HARRNESS/harrnessReport10032005.pdf* ("Whereas 30 years ago the US harmful algal bloom problem was scattered and sporadic, today virtually every state is threatened by harmful or toxic algal species."); Raloff, Dead Waters, Science News Online June 5, 2004 (the number of major dead zones has been roughly doubling every decade since the 1960s); NRDC, *In Hot Water: Water Management Strategies to Weather the Effects of Global Warming* pp. 4–16, (July 2007), available at *www.nrdc.org/globalWarming/hotwater/hotwater.pdf* (experts predict that the frequency of damaging events such as droughts and flooding will increase in many areas due to climate change); *An Ocean Blueprint for the 21st Century*, Final Report of the U.S. Commission on Ocean Policy, p.22 (Sept. 2004) available at *http://www.oceancommission.gov/documents* (The world's coral reefs are increasingly showing signs of serious decline, with pristine reefs becoming rare and up to one-third of the world's reefs severely damaged according to some estimates); NOAA, *National Estuarine Eutrophication Assessment: Effects of Nutrient Enrichment in the Nation's Estuaries*, pp. vi-vii (Sept. 1999), available at *http://ian.umces.edu/neea/pdfs/eutro—report.pdf* (The severity and extent of nutrient pollution are expected to worsen in more than half of the nation's estuaries and coastal waters by 2020).

[8] U.S. EPA, *The Clean Water and Drinking Water Infrastructure Gap Analysis*, EPA–816–R–02–020 (Sept. 2002).

[9] *In Hot Water*, pp. 4–16.

[10] U.S. EPA, A Retrospective Assessments of the Costs of the Clean Water Act, 1972 to 1997 (Oct. 2000).

last year's enacted level. We request that the Senate adopt the House funding level of $1.125 billion.

The picture is bleak. The sewer systems are getting older, more antiquated, more likely to fail,[11] and they have more work to do, due to increasing population, land development that occurs at a rate more than twice the rate of population growth, and, as I mentioned, the projected impacts of global warming on water resources.

NRDC's key recommendations are that you address this situation by (1) substantially increasing funding over at least the next 10 years, (2) expand the eligibilities and improve the targeting of water funding so that it can be used to address a broad range of threats to U.S. water resources and so it achieves more per dollar spent; and (3) accompany the SRF with long term investment in research and development in new technologies that will allow the U.S. to find even smarter, cheaper ways to protect and enhance our water resources in the future.

MIND THE GAP

The funding gap between water infrastructure needs and available resources is very large and continues to grow. Yet, the current Clean Water SRF is grossly insufficient to meet our nation's water quality needs, which include repairing and replacing aging sewer plants and collection systems, controlling contaminated stormwater, minimizing polluted runoff, and ensuring adequate and clean flows in our nation's rivers, lakes, and estuaries. We need to authorize substantially more SRF funds to close the gap between our water needs and available federal funding. While there are differing estimates of the amount of additional funding needed,[12] the need for greater investment in clean water infrastructure is clear and undisputed. Any reauthorization of the Clean Water SRF must substantially raise SRF funding levels for those programs, and EPA's own estimate of funding gaps should be a starting point. We should begin to plan now to meet future needs by authorizing funds to address them for at least the next 10 years.

FUND THE SMARTEST, MOST BENEFICIAL PROJECTS

The growing funding gap suggests not just the need for more funding, but also the need to begin to spend that funding more wisely to obtain the greatest amount of environmental benefit per taxpayer dollar invested in water infrastructure. There are several components of this: (1) clarifying that all types of municipal water resource protection needs are eligible for funding, not just construction of hard infrastructure pipes and treatment works, (2) funding the highest priority projects first, (3) providing substantially increased funding for green infrastructure, and (4) ending subsidies for sprawl development.

ELIGIBILITY AND PRIORITY

U.S. EPA has interpreted the Clean Water Act to allow the SRF to be used to fund a variety of types of water resource protection projects, including municipal drinking water source protection and municipal stormwater controls.[13] NRDC urges you to clarify these eligibilities and to encourage the use of integrated water resource management, watershed management, and other integrated and multimedia tools to choose priorities for funding based on expected environmental results. Greater transparency and involvement of the public in the priority setting process would also increase the likelihood that the most environmentally beneficial projects would be selected for funding.

EXPAND FUNDING FOR GREEN INFRASTRUCTURE PROJECTS

The U.S. should not merely rebuild our wastewater and stormwater systems using the hard infrastructure technologies of the past. We must become smarter about stretching our federal investment in water infrastructure by spending more on "green infrastructure"—non-point and non-structural solutions that are more efficient and more environmentally effective than traditional concrete and pipe solutions. Green infrastructure includes a variety of emerging technologies that can be used to restore urban and suburban waterways. Green infrastructure approaches include both engineered approaches that mimic natural functions, such as green roofs and rain gardens, and protection of natural areas (wetlands, stream buffers, forests)

[11] U.S. EPA, *The Clean Water and Drinking Water Infrastructure Gap Analysis*, EPA–816–R–02–020 (Sept. 2002) (projects that 47 percent of sewer pipes will in poor, very poor, or life elapsed condition by 2020, up from 10 percent in 1980 and 23 percent in 2000).

[12] Estimates collected at *http://waterislife.net/Documents/FactSheet.pdf.*

[13] U.S. EPA, SRF fact sheets, available at *http://www.epa.gov/owm/cwfinance/cwsrf/factsheets.htm*.

to provide water capture and purification functions naturally. They are often accompanied by rain barrels, cisterns, and other approaches that "harvest stormwater" for re-use. Green infrastructure benefits include improved water quality, expanded wildlife habitat, enhanced drinking water supplies, protected open space and parks, energy savings, smog reduction, decreased flooding, improved aesthetics, and higher property values. Green infrastructure often saves taxpayers money as well by not only reducing sewage and stormwater pollution, but also by reducing the amount of water that needs to be conveyed to centralized treatment facilities, thereby reducing the cost of operating those facilities. Use of green infrastructure approaches in addition to modernization of aging, decaying treatment plants, collection systems, and distribution systems can forestall the need for even more costly approaches and investments in the future.

Earlier this year, 42 members of the Senate recognized that green infrastructure can be more cost effective than traditional pipe and mortar solutions to stormwater management.[14] In April 2007, NRDC, U.S. EPA, the Low Impact Development Center, the National Association of Clean Water Agencies, and the Association of State and Interstate Water Pollution Control Administrators pledged to work together to promote use of green infrastructure in stormwater and sewer overflow control programs.[15] NRDC's 2006 report, Rooftops to Rivers, reported on the green infrastructure strategies already employed by forward-thinking communities across the U.S. that are already stretching wastewater infrastructure investments to achieve more by focusing on multi-benefit approaches, by leveraging private as well as public investment, and by weaving green infrastructure controls into a broad range of ongoing municipal activities, such as repair and rehabilitation of roads. Green infrastructure approaches can achieve cleaner bodies of water, a greener environment, and better quality of life.

FUND EXISTING NEEDS, NOT SPRAWL

Better targeting of SRF funds not only means funding new types of projects that provide enhanced results, it also means discontinuing funding for projects that cause environmental degradation. Despite the fact that subsidizing new sewer lines and excess capacity often fuels development that makes pollution worse in the long run, a substantial amount of SRF funding (and earmarks) goes to funding these projects every year. Development significantly increases runoff volume and velocity, decreases water quality, and reduces groundwater discharge. The more pavement, the more pollution—that is extremely well documented by now—included in multiple reports by U.S. EPA.[16] Yet, the SRF still funds new collection systems, new treatment plants, and excess capacity—all of which can fuel greenfield development. According to EPA's 2006 report, about 19 percent of the SRF was used to fund "new sewers."[17] Given its adverse water quality impacts, development must pay for itself—it should not be subsidized by the American taxpayer—and should particularly not be paid for out of the very limited federal funding available to protect water resources.

SUBSTANTIALLY INCREASE FUNDING FOR RESEARCH AND DEVELOPMENT

While green infrastructure approaches already have demonstrated performance results in some cities, most of the data is site specific and needs to be scaled up in order to be used at the watershed or subwatershed scale to achieve regulatory objectives, such as combined sewer overflow reduction, total maximum daily load implementation, streambank stabilization, drinking water source protection, and municipal stormwater compliance. Clarifying that green infrastructure projects are eligible for SRF funding is not sufficient. NRDC supports creation of a dedicated fund for wastewater infrastructure research needs, including those for green infrastructure technology development and transfer. For green infrastructure, those needs include work to further develop green infrastructure models and integrate them into existing watershed models, sewer system models, and even global warming and air quality models. We also need to help those communities that are pioneering green infrastructure approaches to perform multi-media monitoring of the

[14] Letter from 42 Senators to the Honorable Dianne Feinstein (March 30, 2007).

[15] Green Infrastructure Statement of Intent (April 17, 2007), available at *http://www.epa.gov/npdes/pubs/gi—intentstatement.pdf*.

[16] U.S. EPA, *Using Smart Growth Techniques as Stormwater Best Management Practices* (Dec. 2005), U.S. EPA, *Growing Toward More Efficient Water Use: Linking Development, Infrastructure, and Drinking Water Policies* (Jan. 2006); U.S. EPA, *Protecting Water Resources With Higher Density Development* (Jan. 2006), available at *http://www.epa.gov/smartgrowth.; U.S.*

[17] U.S. EPA, *Clean Water State Revolving Fund Programs—2006 Annual Report*, p. 16, available at *http://www.epa.gov/owm/cwfinance/cwsrf/2006-annual-report.pdf*.

results that can then be compared with model projections and with results obtained from hard infrastructure investments. This is the kind of research expense that we cannot expect cities to fund solely on their own.

Broader research and development funding is required as well. Public and private investment in research and development in wastewater technologies has shrunk significantly since the 1970s. The U.S. is falling behind in terms of its ability to compete with those overseas for developing and marketing innovative wastewater treatment technologies. The American taxpayer is also denied the environmental and financial benefits of employing improved technologies. Instead of developing and implementing new approaches that will ensure improved protection of resources for the future, we continue to argue about whether our waterways need to be safe for swimming, drinking, and aquatic habitat. Instead, we need to focus on developing the approaches that will ensure their safety, and we need to begin to look at those questions in a holistic way through integrated water resource planning. I look forward to working with you to ensure that Senate legislation not only improves funding for existing wastewater needs, but also puts in place funding for long range investments so that Americans will have enough clean, safe water for decades to come.

Thank you for providing me with the opportunity to testify today. I look forward to working with you to address these issues in your reauthorization bill. I would be happy to answer any questions you may have.

Meeting Clean Water Infrastructure Needs for the 21st Century

Testimony of Nancy Stoner
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Natural Resources Defense Council
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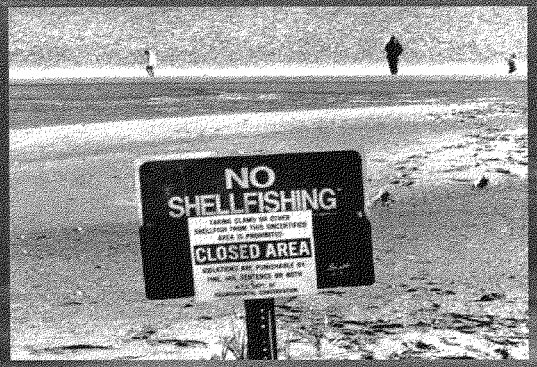
U.S. Senate
Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality
September 19, 2007

Why We Need Federal Clean Water Funding

- Water pollution knows no state bounds
- Inadequate protection pollutes downstream drinking water sources, beaches, fisheries, wildlife habitat
- That is why Congress set up a national program with federal assistance in 1972



Courtesy of J. Kirk Condyles

The Clean Water SRF is a Good Investment

- Upgraded sewage treatment
- Fewer raw sewage overflows
- Fewer beach closures and safer beachwaters
- Enhanced wildlife habitat and biodiversity
- Less waterborne disease
- Reduced drinking water filtration costs
- Increased revenue from tourism, fishing and shellfishing, waterfront development
- More than 400,000 jobs annually for engineers, contractors, manufacturers, and skilled laborers
- Direct return of 2.23 times the federal investment

Installation of permeable pavers
Courtesy of Portland, BES

Water Pollution Problems are Growing

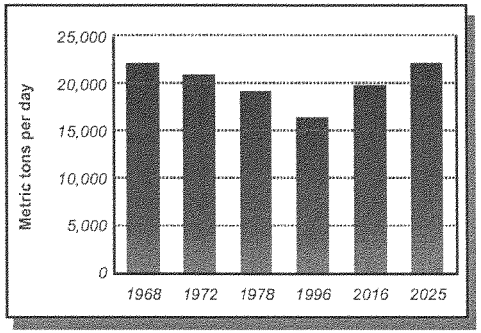


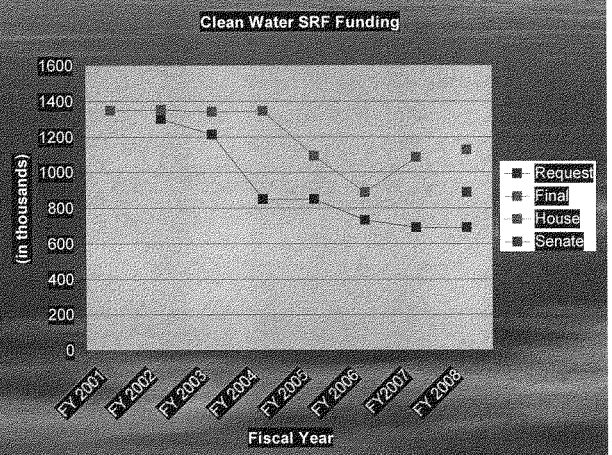
Figure 1–2: Projection of Increase in Biological Chemical Oxygen Demand (BOD)[8]

Source: EPA Report, The Clean Water and Drinking Water Infrastructure Gap Analysis, EPA-816-R-02-020, Sept. 2002

- Given current rate of investment, EPA predicts that sewage pollution will exceed 1968 levels (the highest ever) by 2025
- Upward trend for
  - Beach closings
  - Red tides
  - Dead Zones
  - Coral reef damage
  - Droughts
  - Flooding
  - Loss of aquatic habitat
- Global warming projected to exacerbate negative trends

Even Though Problems are Growing, SRF Funding is Shrinking

- Clean Water SRF funding is declining
- After initial FY07 improvement, Senate number is almost as low as President's
- Gap estimates are up to $20 billion annually
- Investment in research and development down 50%



Graph prepared by Heather Taylor, NRDC

The Solution – More Money, Better Spent

- Substantially increased funding over at least the next 10 years
- Better targeting of resources to achieve water resource protection goals
- Research and development

Brays Bayou restored wetland, Mason Park, Houston, TX: photo courtesy of the Sierra Club's, *Building Better II: A Guide to America's Best New Development Projects* (Nov. 2006)

Increase Efficiency of SRF Spending

- Fund existing needs, not sprawl
- Fund green infrastructure that achieves more per dollar spent
- Fund highest priorities from an integrated water resource perspective
- Increase funding for research and development on better, cheaper approaches
- Increase public involvement and transparency to get better results

Navy Yard Bioretention.
Photo courtesy of LID Center.

Increase Funding for Green Infrastructure

- Green infrastructure uses trees and other vegetation in urban areas to manage and treat precipitation naturally rather than collecting it in pipes.
- It uses engineered systems such as green roofs, rain gardens, and vegetated swales to mimic natural functions.
- Green infrastructure often accompanies approaches that capture and re-use stormwater and wastewater.

2nd Avenue SEA Street
Photo courtesy of Seattle Public Utilities.

Benefits of Green Infrastructure

- Captures sewer overflows
- Filters polluted stormwater
- Recharges groundwater
- Reduces heat island effect
- Improves air quality
- Provides wildlife habitat and recreational space
- Protects stream banks
- Conserves energy
- Prevents flooding
- Improves urban aesthetics
- Increases property values
- Often less expensive than conventional approaches

Maplewood, MN. *Photo Courtesy of Bob Newport, US EPA, Region 5*

Fund Existing Needs, not Sprawl

Courtesy of Center for Livable Communities

- Development significantly increases runoff, decreases water quality, and reduces groundwater recharge.
- The more pavement, the more pollution – numerous studies document the deleterious impacts of sprawl on rivers, lakes, coastal waters, and groundwater resources
- Yet, in 2006, 19% of the SRF paid for new sewers
- The SRF should not subsidize sprawl – it should pay for itself

Summary of Recommendations – More Money, Better Spent

- Substantially increase funding for 10+ years
- Clarify eligibilities
- Provide incentives for most beneficial approaches, such as green infrastructure
- End subsidies for sprawl
- Increase public involvement
- Increase R & D funding

Lincoln Mercury Headquarters Green Roof, Irvine, CA. *Photo courtesy of Roofscapes, Inc.*

RESPONSES BY NANCY K. STONER TO ADDITIONAL QUESTIONS FROM SENATOR BOXER

Question 1. In your testimony, you discuss prioritizing projects eligible for funding under the SRF. Can you discuss who you would recommend do the prioritization and what criteria you would recommend for determining policy?

Response. Prioritization should be done by the state through a very public process with multiple opportunities for outside stakeholder participation, not just a formal comment on the draft intended use plan. Priorities should include projects that provide the most environmental benefit for dollar spent, projects that would address needs of underserved and disadvantaged communities, and projects that would contribute significantly to water resource infrastructure research needs. Specific priority, and more favorable loan terms, should be given to projects that use green infrastructure to reduce sewer overflows or stormwater pollution and projects that implement integrated water resource management. The SRF should not be used to pay for construction of new sewage treatment plants or new collection systems.

Question 2. One of this committee's top priorities is combating global warming. Indeed, the effects of global warming are profound and will impact snow pack melt, rivers and other waterways. This will put more of a strain on our nation's already strained wastewater infrastructure. How can the SRF program help communities plan for the upcoming effects of global warming on their infrastructure?

Response. Global warming is anticipated to have adverse effects on available freshwater resources. For example, as NRDC recently reported, experts project that global warming will decrease snowpack in the West, reduce water supplies, increase the magnitude and frequency of floods and droughts, and degrade aquatic habitat by reducing stream flows and increasing the temperature of waterways.[1] As stewards of one of the most valuable and scarce resources, water, Congress can lead the response to ongoing climate changes and help stave off further damage. The most important step that Congress can take, of course, is to address global warming directly by enacting the Climate Security Act; however, there are also a number of steps that Congress can take to mitigate the adverse effects of climate change on water resources. Below we include only those that we would encourage Congress to include in wastewater funding legislation:

- Provide funding for state and local water and wastewater agencies to work together to perform vulnerability analyses addressing the impacts of climate change on existing flood management and water storage facilities and systems. This analysis should include changes in surface runoff, riverine hydrology, changes in watershed characteristics, sea level rise, etc.
- Provide funding for state and local water and wastewater agencies to integrate climate issues into ongoing planning (e.g. flood management, levee construction, flood conveyance and surface storage projects), operations, funding and regulatory work (e.g. sewer overflows, stormwater controls, total maximum daily loads, wetlands protection).
- Provide funding for state and local water and wastewater agencies to evaluate the energy-related impacts of water management decisions and the water resource implications of energy choices, to save both water and energy and reduce their contribution to global warming.[2]
- Provide funding for state and local water and wastewater agencies to analyze the water quality impacts of climate change. Three of the primary mechanisms are increases in runoff and infiltration from higher peak rain events, lower summer surface and groundwater flows (thus concentrating pollutants and depleting available water supplies) and higher temperatures (reducing species diversity and increasing the need for trees, stream buffers, and other means of cooling waterways and the discharges into them).
- Provide funding for state and local water and wastewater agencies to evaluate surface storage re-operation opportunities—combined with explorations of potential increases in downstream floodways.
- Provide funding for state and local water and wastewater agencies to encourage integrated water resource management—analysis of long-term trends in needs and uses of water resources for the next 50 to 100 years in light of global warming and steps to maximize the availability of those resources for human and ecological needs.

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[1] *In Hot Water*, pp. 4–16; *see also id*. at 12 ("The USGS modeled the effects of climate change on increased storm intensity and found that the risk of a 100-year flood event will grow larger in the 21st century. Instead of a 1 percent chance that in any year there will be a 100-year flood event, the likelihood in a single year could become as high as one in seventeen.").

[2] For a report exploring the very significant linkage between water and energy, see *http://www.nrdc.org/water/conservation/edrain/contents.asp*.

• Provide funding for state and local water and wastewater agencies to analyze 100yr floodplain designations to provide for increases in the size, frequency, and timing of peak flows related to future climate change.

• Provide incentives in the SRF funding structure for protection of existing green infrastructure, such as for wetlands, headwaters, and forests, and for retrofitting the built environment with green roofs, rain gardens, tree boxes, vegetative planters, vegetated swales, and other green infrastructure because of the climate change protection and surface temperature reduction they provide along with their other benefits.

Question 3. In addition to the direct impacts of untreated wastewater on human health, there are other considerable impacts on our nation's fish and wildlife. A part of America's natural heritage, fish and wildlife also contribute greatly to our nation's "recreation economy." What are the impacts of untreated wastewater on wildlife and how do the SRF programs help address these problems?

Response. Discharges of sewage into waterways have a number of adverse impacts on fish, shellfish, and other aquatic wildlife populations, including removing the oxygen they need to sustain life, smothering or blocking light to the plants that they eat, fueling algal blooms that contain toxins that cause disease, altering their hormonal balance, and changing the balance of species within a water body so as to be detrimental to some.

Many of the pollutants found in sewage discharges are not adequately treated by the existing wastewater treatment system. For example, sewage effluent contains several dozen chemicals—both natural and man-made—that can alter animal hormones. Endocrine disruptors, which mimic hormones, are found in pharmaceuticals, industrial chemicals, pesticides, and a number of household compounds. Excessive amounts of estrogens or estrogen mimics can feminize fish or create so-called intersex animals with both male and female genitals, such as a male fish with eggs. Scientists have shown that some fish with the altered organs are infertile. Sewage treatment plants are not designed to remove estrogen mimicking chemicals. *http://www.environmentalhealthnews.org/newscience/2007/2007-1008labadieetal.html*

In addition, most sewage treatment plants fail to remove nutrient pollution even though technologies to do so are available. Secondary treatment standards, which have not been updated since 1984, were based on technology from the early 20th century and focus primarily on removal of sediments and oxygen-demanding substances. Dorfman, *Swimming in Sewage*, pp. 15–16 (NRDC, 2004).

The SRF should provide additional funding for advanced wastewater treatment approaches to remove excessive nutrients from wastewater. It should also provide grant funding for research necessary to develop technologies for removal of endocrine disruptors and safer substitutes for endocrine disrupting chemicals that end up in our sewers.

RESPONSES BY NANCY K. STONER TO ADDITIONAL QUESTIONS FROM SENATOR LAUTENBERG

Question 1. What incentives or other legislative approaches could be used by Congress to encourage the use of green infrastructure to meet wastewater and stormwater management needs, as well as improve water quality?

Response. There should be both grant funding and incentives within the SRF funding for green infrastructure projects. Grant funding should apply to the research components of green infrastructure projects, such as development of models and monitoring for the multimedia environmental and community and economic benefits that they provide. There should be more favorable loan terms, funded through additional subsidization, and priority given to green infrastructure projects in the SRF program because of their broader environmental benefits.

Question 2. Please elaborate on your testimony on the cost effective of green infrastructure.

Response. There are several different ways in which green infrastructure projects are more cost effective than other means of controlling stormwater and combined sewer overflows. For new development and redevelopment, the cost of using green infrastructure or low impact development techniques often saves money directly for the developer because it is cheaper to install than the stormwater pipes and ponds that it replaces. It often also produces a premium in terms of sales price for homes and the speed at which they are sold. This is all quite well documented at this point in numerous publications, including U.S. EPA, *Economic Benefits of Urban Runoff Controls* (Sept. 1995) (new development case studies), available at *http://www.epa.gov/OWOW/nps/runoff.html*; U.S. HUD and Partnership for Advancing Technology in Housing, *The Practice of Low Impact Development* (July 2003),

www.huduser.org ("[Use of LID has] resulted in rapid home sales, enhanced community marketability, and higher-than-average lot yields."); Aponte-Clarke, et al, "Stormwater Strategies: The Economic Advantage, *Stormwater Magazine*, available at *https://www.forester.net/sw__*—0101stormwater.html.

In already developed areas, green infrastructure retrofits are most likely to pay for themselves directly in terms of cost savings for the building owner when they are integrated into an existing need for rehabilitation. For example, while it may not be cost effective for a building owner merely to install a green roof on an existing building, if the roof needs replacement anyway, the cost differential is such that payback from the insulating value of the green roof, which reduces energy costs, and the reduction in stormwater utility fees often cover the additional cost. Great Lakes Wisconsin Aquatic Technology and Environmental Research Institute Green Roof Project website, *http://www.glwi.uwm.edu/research/genomics/ecoli/greenroof/roofinstall.php.*

Another perspective from which to evaluate costs is that of the city, county, or stormwater and wastewater utility. From this perspective, green infrastructure is often more cost effective for several reasons. First, per gallon of combined sewer overflow reduced or stormwater retained, it is often less expensive than surface reservoirs, tanks, or underground storage tunnels, which are not only very expensive, but also very difficult to fund because the public never sees them or knows that they are there. Second, the cost of construction and maintenance for those centralized, hard infrastructure approaches are borne almost entirely by the utility through the rates it charges its customers. On the other hand, green infrastructure is often installed and maintained by private entities, sometimes at no cost, but usually at least at a reduced cost, to the utility though the use of stormwater or wastewater fee rebates, credits, or offsets. In this way, communities can leverage private investment in tasks that would otherwise be borne entirely by the utility. Third, green infrastructure provides a whole host of non-water quality benefits that improve the cost/benefit ratio, such as improved air quality, peak temperature reduction, wildlife habitat, expanded green space, restored degraded urban lands, increased real estate values, capture of global warming pollution, reduced heat deaths, conserved water and energy, controlled floods, improved aesthetics, enhanced recreational opportunities, etc. Thus, per dollar spent, green infrastructure is a very good deal. Kloss, et al, Rooftops to Rivers (NRDC, 2006). The Center for Neighborhood Technology has developed a green infrastructure calculator that is available to the public free of charge on its website and can be used to estimate the costs and benefits of a variety of green infrastructure approaches. *http://greenvalues.cnt.org/calculator*

RESPONSES BY NANCY K. STONER TO ADDITIONAL QUESTIONS FROM SENATOR CARDIN

Question 1. In your view, what pilot projects or research efforts still need to take place to demonstrate the full range of effectiveness of these green infrastructure strategies?

Response. There is a growing body of literature demonstrating the positive environmental results attainable through the use of green infrastructure for stormwater and sewer overflow controls, but there is a lot of work that still needs to be done, particularly to aggregate the environmental benefits over a neighborhood, sewershed, or subwatershed. EPA has organized a research forum for Jan. 17–18, 2008, to develop an action plan for:

- (1) evaluating water quality and water quantity performances of management practices, including standardizing protocols for those evaluations;
- (2) improving the capacity/ability of standard models and modeling approaches to provide reasonable estimates of management practices performance for predictive and design purposes;
- (3) evaluating economic costs of green infrastructure technologies, including comparisons to more traditional wet weather management approaches.

NRDC agrees with those research needs, but would suggest a few others for research and demonstration projects on a neighborhood, subwatershed or sewershed, or other community-wide level including:

- reduction in peak summertime temperatures and associated anticipated reduction in energy savings, impacts on global warming, stream temperatures, etc.
- reduction in ground level air pollution and carbon capture from widespread use of green infrastructure in a community or specific neighborhood
- quantitative analysis of enhancement of groundwater and surface water resources, including base flow, and associated cost savings
- reduction in stream scouring and erosion and associated water quality benefits and habitat benefits

• reduction in flooding, basement backups, and sewer overflows and associated environmental and economic benefits
• increase in property values, including sales prices, marketability, rental value, and other location sensitive changes, such as hotel room rate, associated with use of green infrastructure on the property and within view
• number and value of jobs created through use of green infrastructure
• increase in various measures of community cohesiveness and empowerment, such as reduction in violence, reduction in crimes, reduced teen pregnancy rates, reduced dropout rate, etc.

Question 2. Can you provide the Committee with some examples of successful, cost-effective projects that have demonstrated the benefits of green infrastructure projects?

Response. NRDC's report, *Rooftops to Rivers* (July 2006) contains a number of case studies from the U.S. and Canada that may interest you. Subsequent to its publication, the Riverkeeper in New York City, issued a report, *Sustainable Raindrops*, based on a study that it commissioned that found that if instead of spending $2.1 billion on additional underground storage tunnels, NY city were instead to spend those funds on green infrastructure, it could capture 2.1 billion gallons more stormwater, save $1.4 million per year in avoided stormwater treatment costs, remove 60 tons of air pollution and 340 tons of carbon dioxide as opposed to adding 6,481 tons of carbon dioxide and 37.8 tons of other air pollutants associated with water treatment, save $67 million per year in energy savings, and increase property values between 3 percent and 20 percent. Plumb, Mike, *Sustainable Raindrops* (2006), *http://riverkeeper.org/special/Sustainable*__Raindrops__FINAL__2007–03–15.pdf.

In addition, EPA has prepared a new report, *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, for which NRDC served as a peer reviewer. NRDC has prepared a chart outlining a number of the case studies from that report below.

No.	Site	Cost Savings	Notes
1	2nd Avenue SEA Street, Seattle, WA[1].	$217, 255 (25%)	Ninety-nine percent reduction in runoff. No runoff since December 2002.
2	Auburn Hills, Southwestern WI.	$761,396 million (32%).	Forty percent of development saved as open space.
3	Bellingham City Hall Retrofit, WA.	$22,000 (80%)	Used rain gardens instead of underground vault to capture parking lot runoff
4	Bellingham Bloedel Donovan Park Retrofit, WA.	$40,000 (76%)	Used rain gardens instead of underground vault to capture parking lot runoff
5	Gap Creek, Sherwood, AR	$678,500 (15%)	Over 20 acres preserved as open space. Developer saved $4,800 per lot to develop and sold each lot for an additional $3,000, resulting in $2.2 million in additional profit.
6	Garden Valley, WA	$63,700 (20%)	Reduced road width, used some pervious paving, and used swales and bioretention with soil amendments
7	Kensington Estates, WA	$89,400 (12%)	Study projected use of LID to eliminate need for detention pond and make more lots available for development
8	Laurel Springs, Jackson, WI	$504,469 (30%)	Conservation design with bioretention and vegetated swales
9	Mill Creek, Kane County, IL	$3,411 per lot (27%)	Cluster development with about 40% of the site saved as open space. In addition to cost savings, lots adjacent to open space sold at a premium.
10	Poplar Street Apts, NC	$175,000 (72%)	Conventional storm drains replaced with bioretention, depressions, grass channels, swales, and stormwater basins in 270-unit building
11	Portland Downspout Disconnection Program, OR.	$241.5 million	Downspout disconnection program costing $8.5 million is expected to save $250 million in avoided costs for underground pipe to store CSOs
12	Prairie Glen, Germantown, WI.	$405,312 (40%)	Nearly 60% of the site saved as open space.
13	Somerset, MD	$785,382 (32%)	In ground test found LID to compare favorably on both costs and environmental results to conventional design

No.	Site	Cost Savings	Notes
14	Tellabs Corporate Campus, IL.	$461,510 (15%)	Open space design for office complex saves not only initial construction costs but also maintenance costs

Source: U.S. EPA, Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices (Sept. 2007), soon to be available at www.epa.gov/nps/lid

Senator LAUTENBERG. Thank you all very much for your testimony. I think each of you was here during the EPA testimony.

By the way, for my fellow subcommittee members, the fact is that we went from a relatively tiny community in Louisiana to Los Angeles, so we covered the scope.

I didn't hear either of you saying that things were hunky-dory and not to worry about them.

What can be the response to the acceptance by EPA of the President's budget as presented by Mr. Grumbles as being OK, cutting the funding approximately in half, that we manage to work our way through because of the other ways that we have of attending to the water quality problem? Anybody make sense of that? I shouldn't say that. Anybody understand that fully?

Mr. WESTHOFF. Well, Senator, I can tell you that, on behalf of NACWA and certainly the city of Los Angeles, we think it is going in the wrong direction. The needs of all segments of infrastructure in this country need money, and we need money from the Federal Government, States, and local. So we think it is going in the wrong direction to be cutting, at this point in time, the money that would go into the State Revolving Fund.

Senator LAUTENBERG. Mayor Palmer, what do you and your colleagues or mayors across the country think about a 50 percent cut in the State Revolving Fund might do to them?

Mr. PALMER. Not to be political, but Senator Voinovich said this, and it is a question of residents in my city of Trenton, NJ and residents all across this Nation are saying, you know, my mom always told me to take care of home first. If your house isn't clean, you can't go and try and clean somebody else's up. If we are spending billions of dollars in infrastructure over in Iraq—which I am not saying we shouldn't do; we should—we have to take care of our own infrastructure here, whether it is water, wastewater, whether it is bridges.

We have seen what has happened in Minneapolis. We saw the water main break, steam pipe burst in New York City. Quite frankly, our infrastructure, whether it is water or whether it is bridges, is falling apart, and we recognize that. We are not just throwing money at a problem, but we are investing in America's future, because if we don't have roads that can take us back and forth, our businesses are going to be suffer, we are not going to be globally competitive. If we don't have clean water to drink, the same for us there as well.

So I think that we have to look at this as investments. I think that cities have had you-go approaches and other things, while using the State Revolving Fund as well. But we don't have time to debate it or work on it; we have to get the job done, and we use whatever resources we have. But we are saying that we need to in-

vest more so that America can be stronger and globally competitive.

Senator LAUTENBERG. The idea that lies behind the State Revolving Fund is a pretty good one. The only thing is that it has to keep up to the volume of need that occurs as the country grows and as the systems that are in place show the wear and tear that one would expect. So is it possible that the communities, the cities can finance their own wastewater treatment, that the citizens in these cities can afford to do the price costing that is called for without an expansion of the State Revolving Fund? Anybody think that?

Mr. FREEMAN. Senator, the full cost approach, as presented and things, such as in Oklahoma—first, let me say on behalf of Oklahoma and the Council of Infrastructure Financing Authorities, we are not hearing anyone who says the dollar amount should be cut. It should be increased. So I would like to State that.

On the full cost pricing, such as in Oklahoma—and it is the same in many other States, and those who have been mayors know that—there is more than one way to finance a project. In Oklahoma, for instance, in most of the communities, most of the loans we make are not just totally secured by repayment from water and sewer rates; there are also other techniques that cities use to pay their loans, sales tax proceeds, things of that nature. So we think that EPA needs to look at those type of avenues for repayment.

In Oklahoma we also see, because of the cuts and things, we have been fortunate enough to partner with other funding sources. Just this last week we worked on a very important project that was in the Illinois River Watershed, where we were using rural development funds with loans and grants, SRF funding, State funding. It really took a lot of work to get it done, but it was a push, and without the SRF, it couldn't have been done.

Senator LAUTENBERG. So now that you've kind of squeezed much of the water out of the sponge, is there any room left for additional projects?

Mr. FREEMAN. It is getting tighter and tighter, sir.

Senator LAUTENBERG. Yes.

Mr. FREEMAN. If I could, Senator, that is why it is important to know and I was glad to hear the Administration saying this, because the Conference of Mayors have bene pushing and the Mayors Water Council have been pushing to remove the volume cap for Private Activity Bonds for water and wastewater infrastructure as one tool in terms of helping our aging infrastructure, and that is one tool. There is no cookie-cutter approach, there are different mechanisms, but the more flexibility that we can have and the less mandates we can have, the better cities and our infrastructure will be.

Senator LAUTENBERG. But I think it all boils down, doesn't it, Mayor, to the fact that you can't simply pass off these funds to the citizenry without, Mr. Freeman, with what you just said, calls for an increase in revenues from other sources. Well, that sounds like taxes to me. Call it what you will. The fact is in this place, where there is constant railing against asking the Nation to pay more for the things that it owes the population—and the war is one glaring example—but there is no free lunch and you can't get it done without asking for more money from the citizens. If the Federal Gov-

ernment can't find it in its revenue stream, then we have a serious problem. But the notion that we could cut in half the Revolving Fund is almost, if I might say, insulting.

Mr. Brasseaux, I was thinking, as I listened to your testimony, it was very vivid. You talked about 7,100 residents, if I am not mistaken. Is that the right size?

Mr. BRASSEAUX. It is 2,100.

Senator LAUTENBERG. Twenty-one hundred.

Mr. BRASSEAUX. You are correct, it's 2,100 homes.

Senator LAUTENBERG. That's what I thought.

Mr. BRASSEAUX. We have had a tremendous growth, but we continue to raise our utility rates. Our problem—and I am sure it is not only in South Louisiana, but across much of the South, at least—we have a large population of low income families, and every time you raise a utility rate by $1, it is really affecting a lot of people.

Senator LAUTENBERG. I am sure it does. Well, it highlights the problem.

Ms. Stoner, thanks for your presentation, it was excellent. You know, I had a meeting with my staff before the hearing, and we talked about the green approach to things, the green infrastructure, and was wondering what happens when you try to grow vegetation up on your roof; who takes care of that. Well, what we saw was wonderful examples in yours of cities that have done it and it is hard to believe, but nature will treat its own ills, given the chance to do it. But if you take away one part, one element of the total ecology, then the rest pays for it.

So we thank you for the commentary that each of you offered. I am going to call on Senator Vitter, but would also remind everybody that the record will be kept open and questions will be submitted to you in writing and would ask that you respond as promptly as you can.

Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman.

Mayor Brasseaux, thank you again for your leadership and for being here. In your testimony, which was very compelling, you talked about how, in a significant project in Carencro, you basically abandoned trying to fool with the State and Federal Government in terms of the Revolving Loan Fund because of the bureaucratic obstacles and red tape and paperwork. Could you talk about that a little bit and what specific steps are necessary to change that situation so it is much less of a burden, particularly for smaller communities?

Mr. BRASSEAUX. Well, Senator Vitter, it goes back about 3 years ago, and at the time I was a part-time mayor and relied a lot on an engineering firm to kind of guide me. They looked at it, the Revolving Loan Fund, for a good while and I met with some State people, and when it was all said and done, the recommendation from our engineer and other consulting engineer was that we are not going to mess with it, it is just too much red tape. I didn't get into the details of that, I just went on their recommendation.

But I am also a vice president with the Louisiana Municipal Association, and I hear that across the State, that, based on things

that they have heard and some past experiences, they won't even go in there and really try anymore.

Senator VITTER. Well, I would really welcome any very specific ideas about cutting through that red tape and making it much more attractive to local communities. Maybe you can work through the Rural Water Association, the Municipal Association, anything else like that to give us—and from my perspective, the more specific the better about how we change that application and of a process. I look forward to that.

Also, you know, one pretty unique Louisiana experience you touched on in the last couple years because of the hurricanes is an enormous population growth overnight in some communities because of displacement from other areas for the hurricanes. Maybe you can touch on that a little bit, because I think—I don't think; I know in Louisiana that is a huge phenomenon that impacts all sorts of infrastructure in communities like yours, which is on the receiving end of that.

Mr. BRASSEAUX. Well, Senator, I would say our community has grown by at least 1,000 to 1,500 residents since the hurricanes. One of the reasons they are coming toward us is we are north of InterState 10, and because of insurance problems, having trouble getting insurance, they want to move a little further inland, away from the coastline. I guess we are about not quite an hour from the coast; mainly, we get winds.

But our infrastructure is suffering because of new subdivisions that are popping up. Right now we have, I would say, in the planning stages or have started construction, 800 new residential lots, not counting probably, the last couple of years, 400 that have been actually homes built on it. Our problem is it is in our city limits and just running the lines, the infrastructure to try to meet those needs, it is a tremendous burden on us.

Senator VITTER. I want to underscore something. That 1,000 residents, virtually overnight, to a community your size is a huge percentage growth overnight. Again, that is pretty unique to the hurricane experience, and I hope that we can make sure that the Federal programs recognize that enormous overnight growth, because that is very unusual. They probably aren't set up to recognize that very quickly.

Then, in closing on my time, Ms. Stoner, I was very interested in your presentation, including the green infrastructure. I know that carries a lot of different things, but if you could generalize in terms of where that technology sits today, how does that cost compare to handling the same amount of water through more conventional needs and, in terms of policy, how should we compare it? In other words, if it is more expensive, should we not move ahead with it? How should we compare it in terms of cost? I assume, over time, that cost will come down.

Ms. STONER. I appreciate that question. First of all, it is a lot of different types of approaches, some which can be used in urban areas, suburban areas, rural areas. There are actually different green infrastructure techniques that can be used all across the landscape.

As far as the costs go, one of the benefits that you get from green infrastructure is the ability to leverage private investment, so you

have to look at the costs in a little bit different way. Instead of having the utility own, construct, and maintain all of the infrastructure itself, one of the benefits of green infrastructure is that you set up incentives to get landowners, property owners to have really part of what turns out to be the wastewater infrastructure on their property itself.

As Senator Lautenberg mentioned, one of these things is green roofs, so that the building owner gets, say, an incentive, a credit on water and sewer fee or on the stormwater fee every month. They are actually retaining the stormwater onsite. They do use very low maintenance types of plants, sedum and other kinds of desert plants that can bake in the sun every day and don't need to be watered. But the maintenance that is required is then done by the building owner. When you look at it altogether, in terms of what the costs are for the utility and what the benefits are, the multimedia benefits that include air pollution, global warming, the rate comes out very favorable comparison for most communities.

I think that we are currently generating those numbers across the country, looking at widespread application of green infrastructure and what we can expect to see in terms of sewershed and watershed reductions, and what the costs are. But often they come out so that the green infrastructure is actually very affordable and often cost-effective for communities, which is one of the reasons why it is so widely supported by so many different groups.

Senator VITTER. Thank you.

Senator LAUTENBERG. I want to put a question to you, Mayor Palmer, Mr. Freeman and Mr. Westhoff, because each of you has significant organizational affiliations. Are you aware in your organizations, Mayor Palmer, in the Conference of Mayors, how many communities would reject use of the State Revolving Fund because there is red tape attached? Or, Mr. Freeman, do you know from your organization?

Mr. FREEMAN. The actual statistic answer to that, no, sir. We can find the answer out to that. I can speak on behalf of Oklahoma. As I mentioned in my testimony, we have been very fortunate in that we have been able to provide approximately 65 percent of the financing to communities for wastewater through Clean Water State Revolving Fund loan program.

Senator LAUTENBERG. Sixty-five percent.

Mr. FREEMAN. Yes, sir, State Revolving.

Mr. WESTHOFF. Senator, I can honestly tell you, and to followup on actually the question that Senator Vitter placed, the problems with red tape are not limited to small agencies. I can tell you that the city of Los Angeles has, in the past, decided not to participate at various times because of the red tape.

I think what happened when we transitioned from the Construction Grant program over to the SRF, they took all of the baggage, and I can tell you that the Clean Water Grant program was burdened with a lot of details and a lot of followup and a lot of post-construction audit problems that existed. Ten years, maybe, after the project was already built, they were coming in, asking you to provide justification. So that baggage sort of followed the SRF.

Senator LAUTENBERG. Does it eliminate the value of the Fund?

Mr. WESTHOFF. Senator, I don't think it eliminates it, because I can tell you there are many organizations or many members of our organization, of NACWA, who take advantage of the SRF. But for the city of Los Angeles, as a large agency, a decision was made that it was easier for us to go out into the private investment market because of a high bond rating and seek investment, rather than utilizing a large amount of the SRF. We have used some SRF money, but there is a lot of red tape and, in our minds, a lot of unnecessary red tape.

So second to increasing the amount of money in the SRF, the next most important thing would be to reduce the amount of red tape and make it easier for municipalities.

Senator LAUTENBERG. We can always agree that we ought to minimize red tape.

When you have questions that involve transfers of huge sums of money, when the competition for those funds is so keen that everybody is trying to get their hands in the largesse, you are going to have some red tape. We have heard complaints over the years that the IRS forms too much red tape. Well, at some point living has its difficulties, and you have to obey the rules, whether it is as simple as red lights or red tape.

Mayor, do you have——

Mr. PALMER. Mr. Chairman, we just wanted to make sure. We did a survey of 440 cities, and 15 percent said they would not use the SRF program because of the red tape.

Senator LAUTENBERG. And 85 percent were happy to take it, red tape and all?

Mr. PALMER. Well, some of the larger cities don't have to, but some of the smaller cities need it as well, but it is a combination.

Senator LAUTENBERG. Well, the public is paying a terrific price and, again, I use the reference to drinking water, running somewhere between $50 billion and $100 billion a year spent on buying water in a container. So we passed along that cost.

When I was a kid—and I don't want to tell you about age because it is a sensitive subject with me, but the fact is we went to the tap and whatever you needed came from the tap.

So we have abused the system either innocently by growth, by expansion, now by—Mr. Freeman, I was happy to listen to your recount of what the excessive rainfall, et cetera, does and the burdens it places on the communities to fight harder to be able to treat their wastewater easily. So things have changed and they will continue to change, but I haven't heard anybody solute the need to cut the funding in half for the State Revolving Fund.

With that, I thank each of you. Your testimony today was especially significant because usually when we get the panels, there is a certain pandering to the committee and the Senate and so forth, but here, I would say, for the most part you said it like it was, and I am happy to hear that.

Just as a formality here, I ask unanimous consent that the written statements from the following organizations be included in the record of today, and that is the Clean Water Construction Coalition, the American Society of Civil Engineers, National Association of Water Companies, Great Lakes and St. Lawrence Cities Initiative, National Utility Contractors Association.

[The referenced information follows:]

"Meeting America's Wastewater Infrastructure Needs in the 21st Century"

Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality

Committee on Environment and Public Works

U.S. Senate

September 19, 2007

Robert A. Briant

Chairman

Clean Water Construction Coalition

Statement for the Record

Submitted September 14, 2007

Mr. Chairman and Members of the Subcommittee, on behalf of the Clean Water Construction Coalition (CWCC) I am pleased to submit the following statement for the record.

At the outset, CWCC wishes to commend you and the Subcommittee for holding this important hearing. No subject and no resource is more important – and more fundamental – to the quality of life for all Americans than the condition of our Nation's water. As the Subcommittee turns its attention this Congress to the reauthorization of the Clean Water Act, today's hearing is a necessary and important first step.

As a matter of background, CWCC is an organization of 19 construction associations from throughout the Nation committed, as its initial goal, to raising the national awareness to the fact that the Federal Clean Water and Safe Drinking Water Acts have not been reauthorized in over a decade. Due to the lack of reauthorization, annual federal appropriations for sewer and water construction has diminished dramatically.

CWCC was organized on December 2, 2005. Representatives of the Coalition met periodically during 2006 with a Coalition Impact Event held in Washington, D.C. on May 18, 2006. That event brought together representatives of the associations that are part of the Coalition, other organizations that support the goals of CWCC, and various congressional leaders. CWCC hopes, and expects, to play a key role in the reauthorization of the Clean Water Act. As the Subcommittee moves ahead on that effort, we will be making our issue positions known. Pending that, our comments today focus on the overall importance of investing in our Nation's clean water infrastructure.

Mr. Chairman, water is a unique and precious resource that is necessary to sustain life – human, animal and plant. As such, it is important for agriculture, transportation,

flood control, energy production, recreation, fishing, and municipal and commercial uses. Public opinion consistently and overwhelmingly supports making clean water a National priority. A recent national survey found that nearly 9 in 10 Americans say that federal investment to guarantee clean and safe water is a critical component of our Nation's environmental well-being. The survey also found that most Americans believe clean and safe water is such an important national priority that they are willing to pay more to get it.

Unfortunately, we are all well aware that our national water infrastructure is aging, deteriorating, and in need of repair and replacement. The American Society of Civil Engineers recently graded the condition of the infrastructure throughout our country. Wastewater infrastructure received a "D-". Nearly half of the sewer pipes in American cities are over 50 years old. Some are over 100 years old. Treatment plants build in the 1970's need to be upgraded. New mandates to manage municipal stormwater runoff have gone into effect. Water quality must be improved.

As a Nation, we are not investing enough in our clean water infrastructure to ensure that we will continue to keep our waters clean. As an example, this Administration has consistently proposed to cut clean water infrastructure funding to the lowest level in the Nation's history. Such cuts will only exacerbate the current backlog of water infrastructure projects. The Congressional Budget Office estimates the spending gap for clean water needs between $132 billion and $388 billion over 20 years. EPA's "Clean Water and Drinking Water Infrastructure Gap Analysis" found that there would be a $535 billion backlog of water and wastewater infrastructure projects by 2019 if additional investments are not forthcoming. Further cuts to the Clean Water State Revolving Fund (CWSRF) will only broaden this gap as federal dollars provide vital

funding to leverage public and private sector funds. Unless we act now to renew investment in our clean water infrastructure, we could lose the significant gains in water quality that have been achieved over the last 30 years.

In addition, it must be pointed out that investments in water infrastructure have a well-documented record of success in job creation and economic development. According to the American Public Works Association, every $1 billion invested in water and wastewater infrastructure construction creates over 40,000 jobs. Critical sectors of our economy rely on clean water. These sectors include the $45 billion commercial fishing industry; the soft drink manufacturers that generate $54 billion in sales; and, the manufacturing sector that uses more than 13 trillion gallons of clean water each year.

An integral component of the Clean Water program is the State Revolving Fund. The CWSRF, which provides funding to capitalize state clean water loan programs which in turn fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management, is critical to clean water efforts nationwide and is an extremely cost-effective government program. For every dollar the federal government invests, more than two dollars is made available for environmental improvements. CWSRF is also a flexible program, allowing states to choose from a variety of assistance options, including loans, refinancing, purchasing, or guaranteeing local debt and purchasing bond insurance. States can also target resources to their particular environmental needs, including contaminated runoff from urban and agricultural areas, wetlands restoration, groundwater protection, estuary management, and wastewater treatment.

Mr. Chairman, we appreciate the funding constraints that are facing the Congress this year, but we believe that the federal government must sustain a strong partnership with states and local governments to fulfill its share of the burden of maintaining and improving the Nation's water infrastructure. Recognizing this, on March 9, 2007, by an overwhelming vote of 303 to 108, the House of Representatives passed H.R. 720, the Water Quality Financing Act of 2007, its version of the Clean Water Act. That bill, in part, authorizes $14 million for FY08-11 for state water pollution control capitalization grants. Such funding levels, at a minimum, are necessary not only to begin to address the clean water needs of our Nation but also to support subsequent Federal appropriations for doing so. For the record, the Coalition is disappointed in the levels of Clean Water Act funding proposed for FY08 in both the House and Senate Interior Appropriations bills currently pending before the Congress. One of the reasons, we understand, that the funding levels are not as high as needed or sought is because there is no Clean Water authorization bill in law to provide funding guidance. All the more reason, Mr. Chairman, for why we strongly urge expeditious consideration of a Senate Clean Water Act bill at funding levels equal to, or greater than, H.R. 720.

Thank you.

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Statement of

The American Society of Civil Engineers

Before the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality

Committee on Environment and Public Works

"Meeting America's Wastewater Infrastructure Needs in the 21st Century"

September 19, 2007

Statement of
The American Society of Civil Engineers
Before the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality
Committee on Environment and Public Works
"Meeting America's Wastewater Infrastructure Needs in the 21st Century"
September 19, 2007

Mr. Chairman and members of the Subcommittee:

The American Society of Civil Engineers (ASCE)* is pleased to submit this testimony for the record for the hearing by the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality on "Meeting America's Wastewater Infrastructure Needs in the 21st Century."

I. Background

The Clean Water Act promised the nation in 1972 that it would ensure the "[r]estoration and maintenance of chemical, physical and biological integrity of [the] Nation's waters." The Act's stated purpose was to stop the release of all pollutants into the nation's waterways by 1985.

Although we have not met that deadline, the Act by and large has done much to restore and preserve the nation's waters. The 1972 law was written to deal with sewage and industrial wastes from distinct sources, and the National Pollutant Discharge Elimination System (NPDES) has worked remarkably well in reducing pollution from industrial sources in our waterways.

Problems remain, however. Based on an incomplete survey of water-quality standards provided by the states in 2000, the EPA reported that about 40 percent of the nation's streams, 45 percent of its lakes, and 50 percent of estuaries that were assessed were not clean enough to support uses such as fishing and swimming. We do not believe the picture has improved markedly since then. (The agency no longer reports aggregate data on national water quality because of the supposedly different methods each state uses in measuring water quality.)

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* ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents 140,000 civil engineers in private practice, government, industry and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a non-profit educational and professional society organized under Part 1.501(c) (3) of the Internal Revenue Code.

In our *2005 Report for America's Infrastructure*, for example, we gave the nation's wastewater treatment systems an overall grade of "D—," a grade perilously close to failing, principally due to the poor physical condition of many of the nation's 16,000 wastewater treatment systems caused by a lack of investment in plant, equipment and other capital improvements over the years.

Moreover, the Act has fared less well in the control of nonpoint-sources of pollutants under section 319. That program, enacted in 1987, was designed to reduce the discharge of pollutants from nonpoint sources through state-developed "management programs" and was funded by EPA grants to carry out the state programs.

Section 319 provides for states to prepare reports and propose management plans for the control of nonpoint-source pollution for approval by EPA, and encourages the development of plans on a watershed-by-watershed basis. States with approved management programs are eligible, on a cost-sharing basis, for federal grants to assist in the implementation of the program. Grants are also available to states with approved plans to assist the states in carrying out ground water quality protection activities which will advance the state toward the implementation of a comprehensive nonpoint source pollution control program.

But the EPA reports that, among the nation's 3.3 million water bodies (which include all river "reaches" located between two tributaries, lakes, and reservoirs), only 26 impaired water bodies or water-body segments have been "partially or fully restored" as a result of efforts under section 319. "Nonpoint source pollution is the leading remaining cause of water quality problems. The effects of nonpoint source pollutants on specific waters vary and may not always be fully assessed," the EPA explains.

The agency's "Clean Watersheds Needs Survey" (2000) reported that 38 states and the District of Columbia needed $13.8 billion in financial assistance under section 319 to deal with their nonpoint-source pollution problems.

II. Wastewater Infrastructure Today

The federal government has directly invested more than $80 billion in the construction of publicly owned sewage treatment works (POTWs) and their related facilities since passage of the Clean Water Act in 1972.

Moreover, state and local governments have spent many billions on water infrastructure projects over the past 50 years. In 2004 alone, these local expenditures totaled $28.3 billion, according to a recent report from the Congressional Budget Office. Approximately 75 percent of all state and local monies were spent on operation and maintenance, not on new capital investment, the CBO reported.

Nevertheless, we have a severe investment gap between what is needed and what is spent for wastewater treatment. That gap has been estimated at between $300 billion and $500 billion over the next 20 years.

That's not acceptable. This country has the economic strength and the technological know-how to solve this problem. All that has been lacking so far is the political will to use them.

The nation's 16,000 wastewater treatment systems continue to suffer from a lack of investment in plant, equipment, and other capital improvements. The typical lifespan of wastewater equipment is 20 years, even when well maintained. Many wastewater-treatment systems have reached the end of their useful design lives. Older systems are plagued by equipment malfunctions and by chronic overflows during major rain storms and heavy snowmelt that, intentionally or not, result in the discharge of raw sewage into U.S. surface waters.

Nearly five years ago, the U.S. Environmental Protection Agency (EPA) released a detailed gap analysis, which assessed the difference between current spending for wastewater infrastructure and total funding needs. The EPA Gap Analysis estimated that, over the next two decades, the United States must spend nearly $390 billion to replace antiquated wastewater infrastructure and to build new treatment plants (the total includes money for some projects not currently eligible for federal funds, which are not reflected in the EPA State Needs Survey).

In August 2004, the EPA estimated that the volume of combined sewer overflows (CSOs) discharged nationwide is 850 billion gallons per year. Sanitary sewer overflows (SSOs), caused by blocked or broken pipes, result in the release of as much as 10 billion gallons of raw sewage yearly, the agency reported.

In its "Clean Watersheds Needs Survey" (2000), the EPA said that the nation needs to invest an estimated $181 billion (in 2000 dollars) to upgrade its aging wastewater treatment plants. That estimate was submitted to Congress in August 2003. We believe that the need is even greater today; unfortunately the agency will not issue its next comprehensive needs report until 2009, based on data to be collected in 2008.

Meanwhile, federal funding under the Clean Water Act State Revolving Loan Fund (SRF) program has remained flat or declined sharply every year since 1995. Despite the impressive funding support provided in the 1970s and 1980s, federal assistance simply has not kept pace with the needs. Nevertheless, virtually every authority agrees that funding needs remain very high: the United States must invest the additional $181 billion for all types of wastewater treatment projects eligible for funding under the Act, according to the 2000 needs survey.

III. Operational Challenges for the Future

One of the greatest challenges for the future of wastewater treatment lies in the industry's ability to manage the increased demand for sewage treatment caused by population growth.

As of the middle of February, the U.S. Census Bureau estimated that there were 301 million people living in the United States. That number is expected to reach 400

million within the next 50 years. Although American families today are smaller, many are moving further from urban areas into remoter suburbs and rural areas. In 2004, the EPA reported that one-third of new housing developments will manage their sewage through septic systems (known as "on-site treatment") due to the increasing decentralization of the U.S. population. Paradoxically, increasing urbanization, as well as the continued presence of agricultural runoff, will provide additional sources of pollution not controlled by centralized wastewater treatment, according to the agency.

Both trends argue for a greater reliance on the use of regional wastewater treatment systems to ensure that discharges are treated and released from a single point-source under the successful NPDES program. This means that it is quite likely that the demand for federal financial assistance for new wastewater treatment systems will continue to grow as well.

Population growth not only adds to the volume of wastewater that must be treated but also increases the volume of nutrients (nitrogen and phosphorous) that is discharged to surface water. Nitrogen that is discharged from treatment plants causes excessive growth of microscopic Phytoplankton in salt water systems. The growth and ultimate decomposition of these organisms result in decreased concentrations of dissolved oxygen available for fish and shellfish, resulting in fish kills, a decrease in the abundance of fish, and a decline within and among species. Many treatment plants in the U.S. are also required to remove nitrogen and phosphorous within the treatment process. The added capital cost of nutrient removal at treatment plants is significant. Moreover, scientists are now evaluating the impact of pharmaceuticals, hormones, and other trace chemicals that might go unchanged through a treatment plant. Many of these are classified as endocrine disruptors, and their effects are well documented. No one knows what the financial impact will be if we have to remove trace chemical compounds.

Parts of the United States are experiencing water shortages already. Population growth will significantly increase the demand for water and cause further shortages. We now have to look at treating wastewater to a level sufficient to allow for its direct reuse. The cost of this will be staggering, not only in new capital investment but in operating and maintenance costs as well. But this investment must be made to ensure reliable sources of safe drinking-water.

Global climate change, resulting in higher temperatures and rising water elevations, also may produce new costs and challenges. Rising water levels will bring about the need for dikes, levees, and other protective measures. In addition, higher water levels may require the building or rebuilding of plants now located in coastal areas to levels above the existing floodplain elevations.

IV. Financial Challenges

Another challenge will be fiscal. Treatment plant costs have risen sharply in recent years: the average per capita cost for wastewater treatment among 132 public agencies in 2004 was $171, an increase of approximately 20 percent from the $143 per

capita cost in 1995, according to a recent survey by the National Association of Clean Water Agencies (NACWA).

At the same time, federal and state grants and loans declined from 10.6 percent to 5.9 percent of total publicly owned treatment plant revenues between 1992 and 2004, said NACWA. Thus more of the cost of providing wastewater treatment is falling upon local ratepayers, who already are paying nearly three-quarters of the cost through user fees and local bond issues. Two-thirds of all capital improvements to local treatment plants were financed by debt in 2004, said NACWA, while only 1.2 percent of all capital costs was provided by federal or state grants.

It appears that these trends will not be significantly reversed in the near future. Under current tax and spending projections, Congress faces years of real budget deficits. Combined with the recent reinstatement of the PAYGO rule in the Congress, these developments mean there will be difficult choices for this committee over the next decade at least.

V. Policy Recommendations

In the short run, ASCE supports legislation to reauthorize the Clean Water Act State Revolving Loan Fund (SRF) program. We believe the SRF needs to be authorized at a level of $10 billion to $20 billion over the next five years to assure adequate investment in new and rebuilt wastewater treatment plants. Congress also must appropriate the full amount of the authorized funding each fiscal year to ensure the proper level of investment is reached.

To address the long-term problem, ASCE supports several means of increasing the federal investment in wastewater infrastructure:

- We believe a federal multiyear capital budget for public works infrastructure construction and major rehabilitation, similar to those used by state and local governments, would greatly improve all U.S. infrastructure, including sewage treatment plants. The capital budget must be separated from non-capital federal expenditures. The current federal budget process does not differentiate between expenditures for current consumption and long-term investment. This causes major inefficiencies in the planning, design and construction process for long-term investments. A federal capital budget could create a mechanism to help reduce the constant conflict between short-term and long-term needs. It also would help increase public awareness of the problems and needs facing this country's physical infrastructure and help Congress focus on programs devoted to long-term growth and productivity.

- ASCE supports the creation of a Water Infrastructure Trust Fund to finance the national shortfall in funding drinking water and wastewater infrastructure systems and other projects designed to improve the nation's water quality. In addition, ASCE supports a variety of financial mechanisms for the trust fund, such as appropriations from general treasury funds; issuance of revenue bonds and tax-

exempt financing at state and local levels; public-private partnerships; state infrastructure banks; user fees on certain consumer products; and other innovative financing mechanisms, including broad-based environmental restoration taxes to address problems associated with water pollution and wastewater management and treatment.

Finally, we cannot create new water; we must continue to use and reuse water. We cannot take clean water for granted. Because of this, we need to have the federal government fund research and development. Federal R&D will provide a significant return on investment as the better treatment methods that result from this investment will help to significantly leverage all of the local investment already occurring. We estimate a return on the order of 10 to 1. This may well be the best use of limited federal dollars.

Federal investment in R&D is also necessary to retain our educational system that is producing educated professionals. Without research dollars there are no faculty working on wastewater studies, and without faculty there are no students. A number of major universities already have eliminated their traditional water and wastewater engineering programs, including Purdue University and Oregon State University, with others to follow because faculty cannot get research dollars.

R&D investments will also pay back by helping to build export industries, which this country needs. This is a proven model; it already is being implemented in places like France and Japan and currently being implemented in Singapore and China.

# # #

Statement of the
National Association of Water Companies

Before the

Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality
Senate Committee on Environment and Public Works

Regarding Meeting the Nation's Wastewater Infrastructure Needs

September 19, 2007

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The National Association of Water Companies (NAWC) represents all aspects of the private water service industry. The range of our members' business includes ownership of regulated drinking water and wastewater utilities and the many forms of public-private partnerships and management contract arrangements. NAWC membership is comprised of over 200 members in 39 States-which provide safe, reliable, water and wastewater to more than 30 million Americans everyday.

Private water companies, like all other public water systems, are regulated on the federal level by the Environmental Protection Agency (EPA) and on the state level by the various state health and environmental agencies. However, unlike municipally owned utilities, privately owned utilities are also regulated by the various State Public Utility Commissions, (PUC), which approve capital investments and set the rates our members charge.

THE INFRASTRUCTURE REPLACEMENT CHALLENGE

NAWC commends this subcommittee for tackling the complex issue of wastewater infrastructure replacement and financing. This is an extremely important issue; how Congress responds to this challenge will not only set the parameters for the industry's response to infrastructure replacement, but also send important signals to the industry, which will guide it for years to come.

The water and wastewater industry as a whole is struggling with the challenge of closing the clean water and drinking water infrastructure financing "gap" as reported by the EPA in 2002.

However, in this same EPA report, EPA found that the funding gap for water infrastructure replacement "largely disappears if municipalities increase clean water and drinking water spending at a real rate of growth of 3% per year (over twenty years).[1]

In short, the infrastructure replacement challenge facing the water industry over the next several years is just that, a challenge; and one that the industry can largely contend with through good asset management, full cost-of-service pricing, consolidation, and public-private partnerships.

The SRF is an important 'tool' that localities must have available in their 'tool box.' Our industry has historically been supportive of the SRFs; by providing primarily a modest subsidy on interest, it does not breed dependence on grants. NAWC is supportive of financing mechanisms that encourage our industry to be self-sustaining and economically viable over the long-term.

HISTORY & LEGISLATIVE PRINCIPLES

In the 107th Congress, NAWC was very encouraged by S. 1961 which was introduced by then-Senator Bob Graham (D-FL) and passed by this Subcommittee with bipartisan support. That bill is a good model for water infrastructure financing legislation, and with a few modifications we hope this subcommittee returns to this approach. Similarly, in the 108th and 109th Congress, NAWC supported S. 2550, and S. 1400 both of which passed out of this subcommittee. NAWC looks to this body to consider similar legislation this year. We, however, had a few concerns with past legislation, and hope that those concerns can be addressed in the 110th Congress.

S. 1961, S. 2550 and S. 1400 would have brought many innovations to the Clean Water State Revolving Fund (CW-SRF), which could have moved the water industry toward efficient use of resources and self-sustainability. The provisions in S. 1961 which encouraged the use of public-private partnerships, regionalization, and consolidation to address viability problems and infrastructure replacement challenges, are of great importance. Similarly, provisions encouraging full cost of service rates and sound asset management are essential if the industry is to meet the challenge and become self-sustaining.

If utilities are to receive assistance from the federal government, it is not unreasonable for the federal government to expect that utilities receiving such assistance will do everything they can to manage their utilities in the most efficient and effective way possible, drawing from the vast array of management options available to them. We hope that this subcommittee will ensure that these provisions will be part of any water infrastructure legislation considered in the 110th Congress.

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[1] U.S. Environmental Protection Agency, Office of Water, *The Clean Water and Drinking Water Infrastructure Gap Analysis,* September 2002.

PRIVATE UTILITY ACCESS TO CW-SRF

We have been pleased that the bills considered by this Subcommittee in past three Congresses – S. 1961, S. 2550 and S. 1400 – would have allowed access to the CW-SRF by privately owned utilities, thereby extending the benefits of the SRF to our customers. Private utilities have had access to the Drinking Water SRF (DW-SRF) since its inception. It has worked very well, and this innovation is long overdue in the CW-SRF.

When Congress authorized the DW-SRF it correctly concluded that the benefits of private access would flow to the customers of private utilities in the form of rate relief, not to their owners or shareholders in the form of increased profits. To allay concerns of "corporate welfare", the National Association of Regulatory Utility Commissioners (NARUC) – the association of the regulators which oversee and set our members' rates - went on record in a 2006 resolution assuring that neither shareholders nor owners of investor owned utilities are profiting from taxpayer investments when DW-SRF loans are used. NARUC further endorsed allowing private utilities access to the CW-SRF because NARUC members are in the position of assuring that the benefits of the CW-SRF would flow to customers, not utilities or share-holders.

Since the benefits of the SRF loans will flow to customers, why shouldn't the customers of privately owned utilities enjoy the same advantages of the SRF as do those of municipally owned utilities? After all, customers of all systems, as taxpayers, are contributing to the SRFs.

The provision granting private access to the DW-SRF has created opportunities for privately owned utilities to work with states and municipalities in assisting failing systems and/or under-served areas. It would be a shame and a mistake to continue to foreclose these potential success stories in the wastewater industry, especially in light of the many infrastructure challenges we face.

NAWC strongly recommends that any bill introduced in the 110th Congress allow private utilities to be eligible to receive CW-SRF loans.

REJECT GRANTS AND TRUST FUNDS

To address the infrastructure financing challenge there are calls from some to establish a new federal grant program financed through a new trust fund and presumably some sort of new taxes. NAWC does not support such a concept and encourages this subcommittee to reject this misguided proposal.

Significant subsidies to all customers, like those that would be provided by grants, are not provided by the federal government to other essential utility services like energy and telecommunication, so why should water be water and sanitation services be treated any differently? As it is with other utility services, self-sustainability of utilities and the industry should be the goal and grants work directly against this. In fact, grants to

utilities should only be made in the rare circumstance when other options have been exhausted.

Grants send the wrong economic and conservation signals to consumers. Grants:

- Breed dependence on large federal subsidies,
- Encourage – even reward – bad management practices,
- Discourage innovation, public private partnerships, consolidation, and other creative business models,
- Because of overhead costs and inefficiencies, grants can cost the public more than other creative solutions would.

PRIVATE ACTIVITY BONDS

One important tool for utilities meeting the infrastructure replacement challenge can come from Congress lifting the state volume cap on private activity bonds. While we understand this taxation change is not the jurisdiction of this Subcommittee, it is important to note that NAWC actively supports this important reform and hopes to see it enacted this Congress.

Amending the tax code to bring water projects out from under the cap will make capital both easier to obtain and less expensive for partnerships wherein a municipality works along with a private entity to receive tax-exempt financing. Safe guards already in place in the tax code will assure that these tax-exempt bonds will only flow to projects that meet specific requirements and are in the interest of the general public.

The change to the tax code would cost the federal government very little money: $31 million over five years, $185 over 10 years. Yet, according to the Environmental Protection Agency, as much as $6 billion annually in private capital could be leveraged to address the infrastructure financing challenge.

This would be yet another 'tool' in the 'tool box' available to localities.

ROLE OF THE PRIVATE SECTOR

The private sector has long played a vital role in our nation's water infrastructure and stands ready to do much more. Privately owned water and wastewater utilities have successfully provided service to the public for hundreds of years. It is a proven model.. Another viable option is contract operations, wherein the municipality retains ownership of the asset; in this case a water utility and its infrastructure, but the management and operations of the facility are contracted out to a private company.

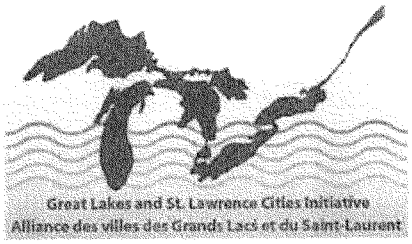
History has shown that the private sector can and does provide clean water services to customers efficiently while focusing on long term sustainability through market-based

solutions. Privately owned utilities are on the cutting edge of technical innovation and research. Furthermore, in this time of increased interest in green practices and conservation, the private sector has once again been on the forefront of these initiatives, attracting experts to the industry with firsthand security experience. The broad range of public-private partnership models can be adapted to the unique needs of individual communities. All of this is done while maintaining accountability to the public and complying with all federal and state regulatory requirements.

Studies by the National Association of Water Companies and others have shown that creative public-private partnerships and other arrangements can increase environmental compliance and simultaneously reduce operating costs by 10 to 40%. It is obvious that with such cost savings, the need to look to the federal government for assistance is greatly reduced, if not eliminated.

CONCLUSION

We appreciate the leadership role that this subcommittee has taken to address wastewater infrastructure problems. These are long-term challenges, and we look forward to working with the Committee to achieve long-term solutions that will allow the wastewater industry to stand on its own two feet.



September 18, 2007

The Honorable Barbara Boxer and The Honorable James M. Inhofe
United States Senate, Committee on Environment and Public Works
Re: Funding Level for the Clean Water State Revolving Fund

Dear Senator Boxer and Senator Inhofe:

The viability of one of the world's largest supplies of surface freshwater is in jeopardy. Thirty-five years after passage of the Clean Water Act, the Great Lakes, which provide drinking water to more than 35 million people, are still subject to degraded water quality from occurrences such as combined sewer overflow discharges and aging wastewater treatment plants. While municipalities and states invest a great deal of money to upgrade and address water and wastewater infrastructure, local units of government cannot be expected to fully cover these expenditures to meet the needs of the region. Although the federal government made major investments in this infrastructure in the past, the amount available to cities now has diminished dramatically. This must be changed.

The Great Lakes and St. Lawrence Cities Initiative is a coalition of United States and Canadian mayors that work with federal, state, provincial, tribal and local officials to actively advance the restoration and protection of the Great Lakes and St. Lawrence River. The organization urges reauthorization of the Clean Water State Revolving Fund with increased and adequate funding; at the very least reestablishment of funding at the $1.35 Billion level that has existed historically. The Great Lakes and St. Lawrence Cities Initiative commends the United States House of Representatives for working to reverse proposed FY 2008 cuts in funding for the Clean Water State Revolving Fund and the United States Senate Committee on Environment and Public Works for reaching out to stakeholders and considering revision to the current Senate authorized funding amount.

The Great Lakes are vital to the nation. Not only do they represent approximately 90 percent of the surface freshwater supply for the United States, provide a livelihood for the millions of people that live and recreate within the Basin, but the Great Lakes regional economy represents 30 percent of the United States' gross domestic product. The Lakes are also vital internationally, as exemplified through our relationship with Canada and the increasing significance of this major source of fresh water. The Great Lakes are truly a national and international resource that must be restored and protected.

Unfortunately, the lack of investment into this resource, particularly as a result of recent federal funding cuts to the Clean Water State Revolving Fund, threatens the Great Lakes, the quality of life of millions, and the nation's economy. The report released recently by

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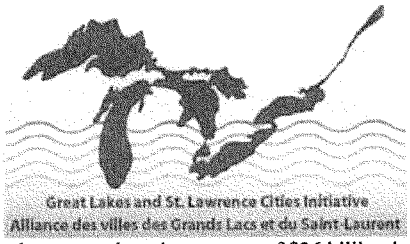
Gary Becker, Mayor of Racine, Chair
Richard M. Daley, Mayor of Chicago, Founding United States Chair
David Miller, Mayor of Toronto, Founding Canadian Chair



the Brookings Institute documents how investment of $26 billion in protection and restoration of the Great Lakes can lead to well over $50 billion in economic benefits and activity in the region.

The Clean Water State Revolving Fund is a significant funding option in the Great Lakes region. Given the importance of the Great Lakes, as a source of drinking water, a recreational outlet, and the foundation for a strong and growing economy, addressing threats to this resource is a priority. The United States Environmental Protection Agency estimates that more than 150 U.S. municipalities or sewer districts with combined sewer systems operate on the Great Lakes or on tributaries to the Great Lakes, all of which are subject to overflows during significant storm events. Such overflows are associated with high bacteria counts at local beaches and in the water and possible public health risks.

Local units of government already invest a great deal to address water and wastewater infrastructure. As an example of the magnitude of municipal investment in combined sewer systems, per the *Report to Congress on the Impacts and Control of CSOs and SSOs 2004*, expenditures to correct combined sewer systems from 48 communities totaled $6 Billion (Appendix M, pg. 5). This level of expenditure, combined with the age of water and wastewater infrastructure within the Great Lakes region and the value of the freshwater the Great Lakes provide, suggests that cutting funding for the Clean Water State Revolving Fund is ill-advised.

The Great Lakes and St. Lawrence Cities Initiative encourages the Senate Committee on Environment and Public Works to explore the current Senate authorized funding amount for the Clean Water State Revolving Fund and consider revising that amount to an increased funding level. Furthermore, Congress is urged to do what it can to avoid further federal funding cuts to the Clean Water State Revolving Fund. The water and wastewater infrastructure of the Great Lakes region must be updated and maintained for the safety of the public, the livelihood of millions, and the economy that depends on this vital freshwater resource.

Thank you for the opportunity to submit comments in advance of the Senate Committee on Environment and Public Works hearing regarding the Clean Water State Revolving Fund.

Sincerely,

David A. Ullrich
Executive Director

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Gary Becker, Mayor of Racine, Chair
Richard M. Daley, Mayor of Chicago, Founding United States Chair
David Miller, Mayor of Toronto, Founding Canadian Chair

Senator LAUTENBERG. With that, once again, my thanks. This hearing is adjourned.

[Whereupon, at 12:14 p.m., the committee was adjourned.]

[Additional statements submitted for the record follow.]

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

Mr. Chairman: Thank you for holding this hearing today.

We have a number of important witnesses to hear from, so I will keep my opening statement brief.

This hearing is especially timely. Earlier this week the Chesapeake Bay Foundation released its report entitled "Bad Waters: Dead Zones, Algal Blooms, and Fish Kills in the Chesapeake Bay Region in 2007." This disturbing report details the many problems that are associated with excess nitrogen and phosphorus that finds its way into the Chesapeake Watershed annually. The report also takes note of the numerous beach closures that hit the Chesapeake region in 2007, most of which result from faulty treatment of sewage waste.

Mr. Chairman, about 20 percent of the excess nitrogen and phosphorus that pollutes the Bay comes from wastewater treatment plants. And virtually 100 percent of the Maryland beach closures on the Bay are the result of failing sewage treatment facilities.

These startling statistics about the Chesapeake Bay are not unique to our part of the country. Coastal 'dead zones,' where too little dissolved oxygen exists for fish and other aquatic species to survive, are a tragic and all too common phenomenon from your own Barnegat Inlet in New Jersey to the Hood Canal in Washington State.

We will hear testimony today about the major health effects that are associated with improperly treated sewage. Coupled with the ecological devastation that I have outlined, these problems will continue to grow until we take a much more aggressive approach to the aging and often failing wastewater treatment plants in America.

The total cost associated with meeting wastewater infrastructure needs that the states have already inventoried amounts to hundreds of billions of dollars. When drinking water infrastructure is added to the calculation, the total approaches $1 trillion in water infrastructure needs over the next 20 years.

In the Chesapeake region, the states have identified more than 450 wastewater facilities that require state-of-the-art treatment to remove excess nutrients from their effluent. The total price tag for these upgrades is in the neighborhood of $6 billion.

In Maryland alone the cost of this advanced level of treatment is estimated at $2.2 billion. And that does not include other pressing costs:

- $850 million for secondary treatment
- $164 million to correct Inflow and Infiltration problems,
- $868 million for sewer replacement and repairs,
- $960 million for new sewer interceptors and collectors,
- $430 million to repair Combined Sewer Overflows,
- $431 million for Stormwater controls, and
- $247 million for other non-point source pollution controls.

Maryland's bill tops $6.1 billion in identified wastewater treatment needs.

During today's hearing we will learn about some innovative efforts to address this funding shortfall. Clearly a major new investment of federal dollars will need to be part of this effort. Water efficiency programs will play a major role, and so will innovative financing tools. But I want to express my hope that we will also focus a considerable portion of our attention on the use of "green infrastructure" to reduce stormwater runoff.

Green infrastructure takes advantage of the natural filtering and water capture capacity of natural landscapes to reduce the amount of stormwater that is such a huge part of the pollution problem facing America's waters.

These efforts have multiple benefits beyond their amazing water quality benefits. Trees, for example, can be used to intercept stormwater before it enters collection systems. They also filter air pollutants from our skies, and lower the "heat island" effect that we see in major urban areas. And these Green Infrastructure investments are often dramatically less expensive than traditional concrete and mortar treatment facilities.

Clearly, the Nation is facing a wastewater infrastructure crisis. The Clean Water Act promised America swimmable, fishable, drinkable water more than a generation

ago. In spite of major investments and consistent efforts, that is a promise that has not been realized. An earlier generation of investments has now reached its engineered lifetime. We need a new investment in America's aging infrastructure. I trust that today's hearing will start us on that path.

Thank you, Mr. Chairman.

Statement of

The Associated General Contractors of America

Presented to the

Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality

For a hearing on

Meeting America's Wastewater Infrastructure Needs in the 21st Century

September 19, 2007

Building Your Quality of Life

The Associated General Contractors of America (AGC) is the largest and oldest national construction trade association in the United States. AGC represents more than 32,000 firms, including 7,000 of America's leading general contractors, and over 12,000 specialty-contracting firms. Over 13,000 service providers and suppliers are associated with AGC through a nationwide network of chapters. AGC contractors are engaged in the construction of the nation's commercial buildings, shopping centers, factories, warehouses, highways, bridges, tunnels, airports, waterworks facilities, waste treatment facilities, dams, water conservation projects, defense facilities, multi-family housing projects, site preparation/utilities installation for housing development, and more.

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
2300 Wilson Boulevard, Suite 400 • Arlington, VA 22201 • Phone: (703) 548-3118 • FAX: (703) 548-3119

STATEMENT OF
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
SUBCOMMITTEE ON TRANSPORTATION SAFETY, INFRASTRUCTURE SECURITY, AND WATER QUALITY
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SEPTEMBER 19, 2007

The Associated General Contractors of America (AGC) is pleased that the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality has chosen to examine the need for increased investment in our nation's water infrastructure and welcomes the opportunity to submit these comments. AGC hopes that the subcommittee recognizes the need not only for an immediate boost in funds for both the Clean Water and Safe Drinking Water State Revolving Loan Fund (SRF) programs, but also the wisdom behind establishing a sustainable source of funding for clean and safe drinking water infrastructure much like the Highway and Aviation Trust Funds.

AGC, along with its coalition partners in the Water Infrastructure Network (WIN), believe that a drastic need exists for investment in clean and safe drinking water infrastructure. The U.S. Environmental Protection Agency (EPA) has documented needs totaling $457 billion for clean and safe drinking water over the next 20 years, whereas the Water Infrastructure Network (WIN) reported a gap of about $460 billion over the next 20 years between current funding at all levels of government and capital investment needs for clean and safe drinking water.

Since 2004, annual capitalization grants for the Clean Water SRF program have fallen from $1.35 billion in 2004 to less than $700 million proposed for 2008, while those for the Safe Drinking Water SRF program have remained stagnant at around $850 million a year. Realizing growing demands on the discretionary portion of the budget that funds infrastructure programs, AGC urges the subcommittee to work with the Senate Appropriations Committee in the short term to make investment in clean and safe drinking water a priority and increase appropriations for these two programs.

These recent funding cuts have served to undermine state and local efforts to address their water infrastructure needs. The lack of funding for clean and safe drinking water infrastructure threatens our environment and the economic well-being of our nation. *Increased* funding is sorely needed to eliminate the gap between available funds and the demonstrated need for these critical infrastructure programs. By failing to restore and increase funding, we would be rolling back gains made since the Clean and Safe Drinking Water Acts were enacted.

Simply stated, the current lack of federal commitment to fund water and wastewater infrastructure threatens the integrity of our environment and the economic well-being of our nation.

To meet the goals of federal water quality statutes and ensure a long-term solution to funding challenges, AGC believes that a dedicated source of federal funding must be identified. Therefore, AGC urges the subcommittee to include in any water infrastructure financing legislation a provision to establish a trust fund through which dedicated user fee revenues would be deposited and dispersed solely towards investment in clean and safe drinking water infrastructure.

To address this critical need, AGC recommends the following approach:

Support a New Clean and Safe Drinking Water Funding Bill: Support immediate increased authorization levels for both the Clean and Safe Drinking Water SRF programs. Any proposed legislation also should not include burdensome requirements for obtaining SRF loans which would discourage state and local government participation in the program or increase diversions of limited funding away from capital investment needs. In addition, the subcommittee should continue to work with the Senate Appropriations Committee to boost annual funding for these two programs.

Include Language to Establish a Trust Fund and Identify a Long-term Funding Source: A new bill should include language that would assist Congress in quickly identifying a dedicated source(s) of revenue to ensure the availability of appropriations to fund clean and safe drinking water needs. The bill should also create a trust fund into which such revenue would be deposited and require that funds shall only be spent on clean and safe drinking water activities.

Prevailing Wage Language: In order to facilitate discussion, AGC has not taken a position on prevailing wage requirements, but would support appropriate legislation even if it included prevailing wage provisions.

The Clean and Safe Drinking Water SRF programs have provided a perpetual source of funding to build and improve our nation's vital water infrastructure while creating jobs and building revitalized communities. SRF projects at this level would create thousands of American jobs, and there is at least $7 billion in clean water infrastructure projects that could begin immediately if the funding were available.

Again, thank you for the opportunity to comment on this important issue. AGC looks forward to working with the subcommittee to enact meaningful legislation to address this critical public health and environmental issue.

Thank you.

Janet Napolitano
Governor

Stephen A. Owens
Chairman

Water Infrastructure Finance Authority of Arizona
Judy Navarrete
Executive Director

Honorable James M. Inhofe, Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

September 20, 2007

Dear Senator Inhofe:

As Executive Director of the Water Infrastructure Finance Authority of Arizona (WIFA), I was happy to see the Environment and Public Works Committee schedule listing the hearing on Meeting America's Wastewater infrastructure Needs in the 21st Century.

WIFA provides low-interest loans to communities throughout the state to finance critical water infrastructure projects. These projects not only protect Arizona's precious water resources, they also help these communities grow and prosper.

WIFA's principal tools for providing low interest financial assistance to Arizona's cities, towns and tribes includes the Clean Water Revolving Fund for publicly held wastewater treatment projects and the Drinking Water Revolving Fund for both publicly and privately held drinking water systems. Both funds are capitalized by contributions from the state and the U.S. Congress.

I don't know if you are aware but there is a tremendous funding inequity in the EPA-administered Clean Water Act State Revolving Fund (CWA SRF)- the primary federal mechanism for financing clean water and wastewater infrastructure projects nationwide.

Every state (except Nevada and Wyoming) has participated in the EPA's Clean Watershed Needs Survey (CWNS). This survey, conducted every four years, quantifies the anticipated needs in a state for the next 20 years. In the 2002 CWNS, the state of Arizona certified over $6.3 billion in clean water needs – ranking 10th in the country for needs.

It is incumbent for states that need additional resources for clean water infrastructure to demonstrate their need. For population-booming states like Arizona, apparent in our most

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"Arizona's water and wastewater funding source"

Janet Napolitano
Governor

WIFA

Stephen A. Owens
Chairman

Water Infrastructure Finance Authority of Arizona
Judy Navarrete
Executive Director

recent CWNS and in the financial assistance applications that WIFA receives every year, Arizona needs additional CSWRF funds to meet the growing financing demands. WIFA can accomplish this with a fair and equitable allocation formula based on needs. However, Arizona received just $7,202,000 in fiscal 2007, ranking Arizona 49th in terms of percentage of needs met. This is due to the fixed percentages in the Clean Water Act allocating these federal grants. It is vital that adequate funding for the CWSRF is provided and the out-dated allocation formula be revised.

Sincerely,

Judy Navarrete

Judy Navarrete
Executive Director

1110 West Washington, Suite 290 • Phoenix, Arizona 85007
(602) 364-1310 • www.azwifa.gov
"Arizona's water and wastewater funding source"

Written testimony by the

National League of Cities

Before the Subcommittee on Transportation Safety, Infrastructure Security and Water Quality

Senate Environment and Public Works Committee

"Meeting America's Wastewater Infrastructure Needs in the 21st Century"

September 19, 2007

We thank the Committee Members for their leadership and dedication to finding an appropriate solution to and increasing investment in water infrastructure financing. We appreciate the opportunity to submit written comments for the record on behalf of the National League of Cites (NLC), the nation's oldest and largest organization devoted to strengthening and promoting cities as centers of opportunity, leadership and governance. NLC is a resource and advocate for 19,000 cities, towns and villages, representing more than 218 million Americans.

Our nation continues to experience problems with both the quality of our waters and the adequate supply of sources of water to sustain our population. Additionally, our nation's cities face a crisis in funding their water infrastructure needs. The ability of municipalities to comply with any clean water program must be recognized as contingent upon adequate funds.

The U.S. Environmental Protection Agency has estimated a funding gap approaching $23 billion annually between current local investments in aging and failing water infrastructure and meeting new and more costly federal mandates. Federal assistance in meeting these needs has declined by 75 percent over the past 20 years while municipal costs for operation and maintenance of their systems is escalating by 6 percent a year above the rate of inflation. Financing the gap with rate increases would result in a doubling or tripling of rates across the nation – making water and sewer bills unaffordable for a significant number of Americans.

The nation's drinking water should be as safe as is technologically feasible at reasonable cost. It is imperative for the continued health and welfare of the nation that local governments have the financial resources and technical expertise needed to provide adequate and safe drinking water to their citizens.

In October 2006, the Georgia Municipal Association (GMA) conducted a survey of its member cities to determine what cities expect to spend in various capital project categories during each of the next five years (fiscal years 2007 through 2011). Survey results showed a significant and overwhelming need for capital improvements to water, sewer, stormwater and drainage. Excluding Atlanta, cities will spend a projected $3.5 billion, or 54 percent, of their capital

improvement funds on water, sewer, stormwater and drainage over the next five years. The second greatest need, excluding Atlanta, was in the category of roads, streets and bridges at $1.1 billion, or 17 percent, of capital improvement funds. Since the 2003 GMA survey, reported total capital improvement needs have increased by 46.5 percent.

What the GMA survey does not show is the investments in capital needs that cities have already made, nor the long-term debt that cities have had to incur and the costs of deferred maintenance to infrastructure. "Ignoring the needs for capital improvements and asking future generations to deal with these issues is not an acceptable alternative. Failure to properly maintain infrastructure of any kind – whether water and sewer, roads, or drainage facilities – usually results in the reduction of the usable life of the infrastructure and the need for replacement at much higher costs." Rate increases and local property tax increases alone cannot bridge the gap between city needs and available funds; the Federal government must play a role.

Federal participation in financing the requirements it mandates is critical to the ultimate achievement of national water quality goals and the availability of safe drinking water. This participation must be both substantial and a reliable long-term source of capital to accommodate the gap between current expenditures and anticipated needs to enhance and maintain critical water infrastructure.

Federal funding for clean water purposes must be made available to meet all clean water mandates imposed on municipalities. Under no circumstances should the federal government look to traditional local sources of revenues (e.g., a federal tax on water and sewer user charges, a federal tax on industrial dischargers to POTWs) as the federal contribution to financing water mandates.

The National League of Cities urges Congress to remove the current restrictions on the availability of federal tax incentives for private financing of wastewater treatment facility needs.

State Revolving Loan Funds

NLC supports state revolving loan programs (SRF) that include requirements for a portion of such funds to be made available as grants. The federal government should continue to authorize and appropriate funds annually which are distributed to the states according to a specified formula.

The federal government should reauthorize and fully fund both the Drinking Water State Revolving Loan Fund and the Clean Water State Revolving Loan Fund to ensure adequate resources for wastewater and drinking water treatment facilities. We strongly oppose the EPA's recent efforts to change the funding structure for permits under the Clean Water Act section 106 programs by increasing the fees local governments would have to pay to the states that regulate them. The draft rule would amend the allocation formula for Clean Water grants by providing incentives for states that pass "the financial burden to those who benefit from NPDES permits." We have strong concerns about this proposal as it would undermine the close working relationship between states and local governments on funding clean water programs.

NLC supports set-asides in the SRFs that benefit municipalities and local ratepayers and are targeted to such purposes as:

- State program administration;
- Research;
- The development of new and more cost-effective technologies;
- Programs to train and certify operators of public water supply systems;
- Programs to assist economically disadvantaged communities with mandated monitoring and compliance requirements; and
- Direct grants to economically disadvantaged cities for drinking water treatment and purification plants where deemed necessary to meet federal drinking water standards.

Grants and Loans
NLC calls on Congress to restore grant funding to assist cities, which should be eligible for any combination of federal loans and grants to meet their water pollution control and drinking water supply needs. The use of loans and/or grants should be tailored to the specific needs and capacity of each municipal applicant. Allocation of funds to municipalities should take into consideration a community's ability to pay and past local efforts to address the problem.

The National League of Cities urges Congress to provide funding to assure adequate resources for water treatment facilities in small and rural communities and to assist all cities in remediating their aging, deteriorating water infrastructure. We support the measures in H.R. 720 to provide technical assistance to small and rural communities to assist them in obtaining grants from the Water Pollution Control Revolving Loan Funds and to provide technical assistance and training for small and rural publicly owned treatment works and decentralized wastewater systems to help meet the requirements of the Clean Water Act.

Local Financing
Federal law should allow local governments to choose between the ad valorem property tax, metered user charges and any other mechanism for recouping construction and operating costs. Federally mandated sewer user charges should be deductible from federal income taxes.

The National League of Cities applauds Congress's efforts to renew the Federal commitment to addressing our nation's substantial needs for wastewater infrastructure and closing the spending gap. We urge the Senate to pass legislation similar to H.R. 720, which has already been approved by the House of Representatives.

Attachment: Executive Summary, Georgia Cities Capital Improvement Needs, 2007-2011

Georgia Cities Capital Improvement Needs, 2007-2011
Executive Summary

Overview
In October, 2006, the Georgia Municipal Association conducted a survey of its approximately 500 member cities to determine what cities expect to spend in various capital project categories during each of the next five years. The survey asked cities whether they anticipate the need to carry out capital improvement projects over the next five years. Cities that answered "yes" to this question were asked to describe their needs by indicating which categories their needs fall into: roads, streets and bridges; water, sewer, stormwater, and drainage; solid waste facilities; public safety facilities; parks and recreation; downtown development and historic governmental buildings; and airports. Respondents were asked to estimate the amount they will spend in each category for each of the next five years. A total of 190 cities responded to the GMA survey.

Please note that this executive summary presents the reported and projected needs of Georgia's cities, *excluding* the City of Atlanta. This is not meant to understate the critical importance of addressing Atlanta's overwhelming infrastructure needs. GMA will continue to work with state legislators to ensure that Atlanta's needs, along with the needs of all cities in the state, are understood and can be met. However, the primary focus of this report is on the five-year needs of the average Georgia city, and the goal of the report is to educate legislators and other state and federal leaders about the critical needs of cities throughout the state. Because the City of Atlanta did provide information for this survey, it is included as one of the responding cities. Atlanta's responses are included in the appendix to this report, which is available upon request.

Methodology
To estimate the projected needs for all Georgia cities, each city was first assigned to one of eight population groups. The population groupings are the same as those used by the Georgia Department of Community Affairs in reports and publications summarizing the results of various state-mandated surveys of local governments. Next, GMA calculated the average annual need for cities in each population group. The average annual dollar amount of need for cities in each population group was then multiplied by the total number of cities in each population group; that average was multiplied by five to estimate the five-year need. (Note: As mentioned above, the City of Atlanta's needs were not used to project needs for population group A, which includes Georgia's largest cities. This was done to ensure that the projections would not overstate the needs of Georgia's larger cities.)

The population figures used in the GMA analysis and report are 2005 Census estimates. The total number of cities in Georgia (536) includes all incorporated municipalities and consolidated governments as of January 2007.

Summary of Findings
GMA's survey yielded a total of 190 responses, which represents 38% of the cities surveyed and 35% of all cities in Georgia. Responses were submitted by cities of all sizes and from every region in the state.

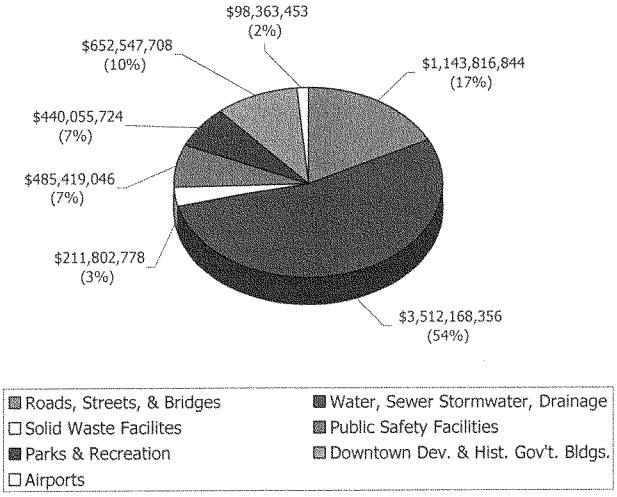
2006 GMA Capital Needs Survey Response Results by Population Group

Group	Range	# in Group	# Responded	% Responded
A	50,000+	12	8	67%
B	25,000-49,999	13	7	54%
C	10,000-24,999	45	31	69%
D	5,000-9,999	46	17	37%
E	2,500-4,999	75	32	43%
F	1,000-2,499	100	39	39%
G	500-999	92	29	32%
H	1-499	153	27	18%
	total	**536**	**190**	**35%**

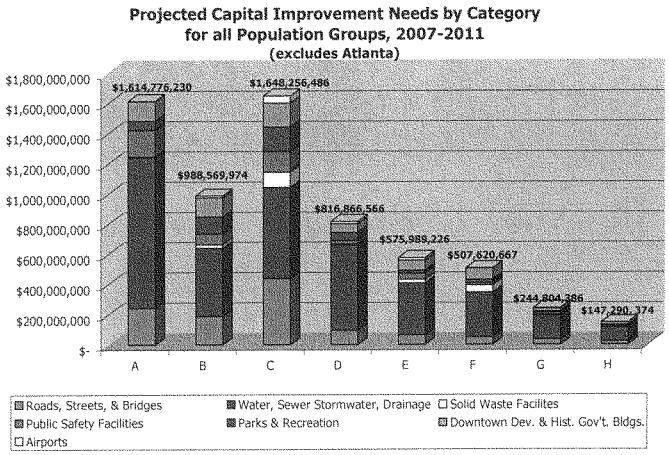
Using the methodology described above, based on survey responses, GMA projects the total need among all Georgia cities (excluding Atlanta) during the upcoming five year period will exceed $6.5 billion.

While cities reported capital improvement needs in all categories, the category of greatest need among responding cities is water, sewer, and stormwater improvements (54%). Other reported needs are for improvements to roads, streets, and bridges (17%), downtown development and historic governmental buildings (10%), parks and recreation (7%), public safety facilities (7%), and solid waste facilities (3%).

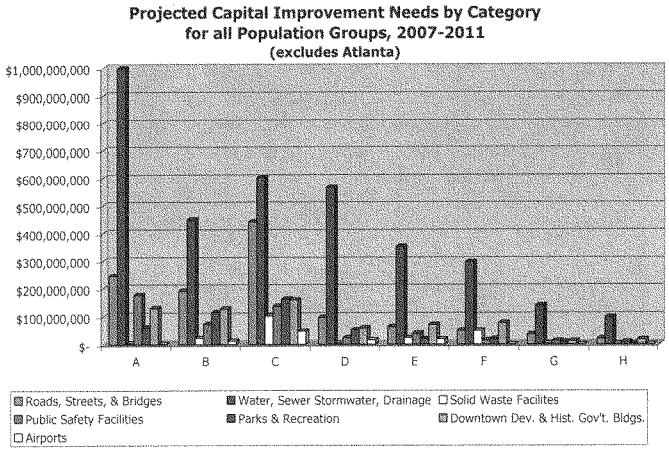
Projected Five-Year Capital Improvement Needs By Category
(excludes Atlanta)



The following graph illustrates the projected needs for cities by population group and category of need. They show that regardless of population size, cities will need to undertake a variety of types of capital improvements.



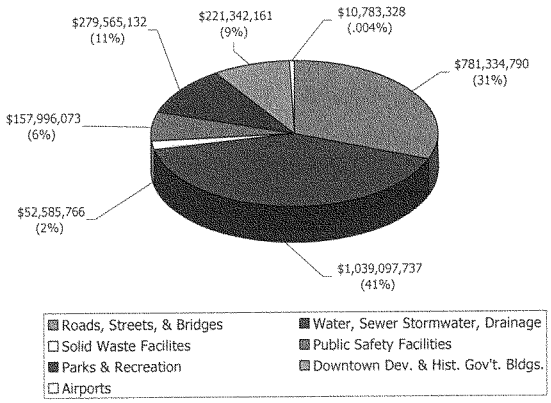
The following graph shows the needs by population group for each category and illustrates the overwhelming need for water and sewer infrastructure. This does not diminish the capital needs in other categories, but it does illustrate the significant need among Georgia's cities for water and sewer capital improvements.



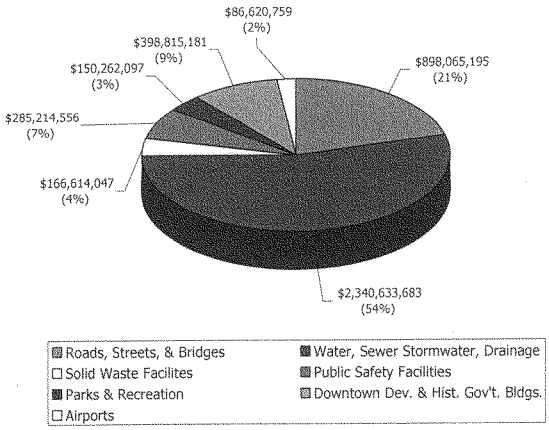
Metro Atlanta Projected Needs Compared to "Rural" Cities Needs

The following graphs depict the projected needs of cities within the 28-county Atlanta MSA, compared to needs reported by cities outside the Atlanta MSA (here referred to as "rural" cities). Needs for the Atlanta MSA exclude reported needs for the City of Atlanta. The graphs illustrate that even in the metro Atlanta area, water and sewer needs are by far the greatest category of need, and even exceed transportation needs, which are also significant.

Projected 5-Year Atlanta MSA Cities Needs by Category
(excludes Atlanta)



Projected 5-Year Capital Needs for Rural Georgia Cities



Conclusion

Across the state, cities are faced with staggering capital improvement needs. Based on responses to the 2006 GMA capital needs survey, GMA projects that Georgia's cities, excluding the City of Atlanta, will need in excess of $6.5 billion for capital projects from 2007-2011. Excluding the City of Atlanta, Georgia's cities will need an estimated $3.5 billion just to pay for water, sewer, stormwater, and drainage needs ***for the next five years alone***. It should also be noted that the reported capital improvement needs in all categories have increased by 46.5% since GMA last surveyed cities in 2003.

Cities have already made investments in capital projects. The numbers reported in this survey include five-year capital needs according to city capital improvement budgets, but they do not take into account the long-term debt that cities have amassed to ensure that infrastructure can be maintained and extended to meet the future needs of a rapidly growing population. It is also important to note that the costs to operate and maintain municipal infrastructure are increasing exponentially every year because of unfunded mandates such as environmental compliance costs.

Ignoring the needs for capital improvements and asking future generations to deal with these issues is not an acceptable alternative. Failure to properly maintain infrastructure of any kind – whether water and sewer, roads, or drainage facilities – ultimately results in the reduction of the usable life of the infrastructure and the need for replacement at much higher costs. And since rate increases and local property tax increases cannot pay for all the necessary improvements, cities will continue to lobby the federal and state governments for financial assistance in paying for capital project needs.

A failure to provide cities with the tools and resources necessary to address the statewide infrastructure funding crisis not only jeopardizes the quality of life for residents and visitors, but it also threatens the state's future economic development, environmental quality, and the public's health and safety – all of which depend on adequately financed capital infrastructure.

For questions about this report, details about individual survey responses, or to learn more about the capital needs of Georgia's cities, please contact Becky Taylor of the GMA staff by phone at 678-686-6276 or by email at btaylor@gmanet.com.

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STATEMENT OF THE
AMERICAN COUNCIL OF ENGINEERING COMPANIES
ON
MEETING AMERICA'S WASTEWATER INFRASTRUCTURE NEEDS IN THE 21ST CENTURY
BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION SAFETY, INFRASTRUCTURE SECURITY AND WATER QUALITY
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE
SEPTEMBER 19, 2007

The American Council of Engineering Companies (ACEC) is pleased to offer its views on the challenge of meeting the nation's wastewater infrastructure needs under the Clean Water Act. We commend the Subcommittee for its long-standing approach to solving water infrastructure issues in a bi-partisan manner and are encouraged that you are undertaking this important effort. The hearing today will help to bring much needed attention to the severe funding shortage that exists, and it is our hope that it will help lay the foundation for the enactment of legislation by this Congress. In addition, your plans to introduce and move legislation aimed at reauthorizing and expanding the State Revolving Funds (SRF) program will be of great benefit in helping to closing the growing gap between the federal-state-local investment in the nation's wastewater infrastructure and the needs of our communities.

ACEC is the business association of America's engineering industry, representing 5,700 independent engineering companies throughout the United States. ACEC members are directly engaged in the development of America's infrastructure, and play a particularly critical role in the effort to improve the nation's water and wastewater infrastructure. ACEC member firms represent the broad spectrum of the industry, from very large firms to small, family-owned businesses. Overall, our members employ well over 300,000 people throughout the 50 states and the District of Columbia. Founded in 1910 and headquartered in Washington, D.C., ACEC is a national federation of 51 state and regional organizations.

The Need

The need for increased investment in our nation's 16,000 wastewater systems is tremendous and has been well documented. In 2002, the Environmental Protection Agency (EPA) reported that capital investment needs for wastewater treatment will have to be at least $331 billion by 2019 to keep the nation's systems in service. The Congressional Budget Office (CBO) concluded in 2002 that "costs to construct, operate, and maintain the nation's water infrastructure can be expected to rise significantly in the future." The CBO conservatively estimated that the needs would be $13 billion annually for wastewater systems over the next 20 years. The Water Infrastructure Network (WIN) – of which ACEC is a member -- reported in 2001 that wastewater systems faced a capital investment shortfall of approximately $12 billion each year over the next 20 years

Sewer overflows are a chronic and growing problem. Many of the nation's urban sewage collection systems are aging; some are one hundred years old. Because of budget constraints, many systems have not received the essential maintenance and repairs necessary to keep them working properly. The existing pipes, bricks and mortar that are holding the current system together are severely outdated and in need of repair. States are forced to delay construction projects in order to comply with important health and safety mandates by the EPA. As a result, it should not be a surprise that states and local governments are falling further behind in their efforts to repair and replace pipes and related facilities. Without a significantly enhanced federal role in providing assistance to communities for wastewater infrastructure, critical investments will not occur.

The nation's needs are large and growing because our systems are at a critical juncture in their life cycles. A combination of reduced federal spending over the past decade and increased federal mandates to meet treatment requirements is taking its toll. The collective aging of pipes and systems complicates the ability of communities to meet the objectives of the Clean Water Act. Seventy-five percent of the nation's capital investment in wastewater and drinking water infrastructure is buried underground and generally becomes visible to the public only when a system fails or a catastrophic event occurs. The useful life of many of these pipes and systems is coming to an end. Any additional deferral of the needed investments to repair and renew these systems will lead to greater increases in the costs associated with protecting the nation's rivers, streams and lakes.

Congress has considered a number of bills to alleviate the wastewater infrastructure funding problem in the last several years. While they represented a good step forward in proposing to update and expand the SRF program, unfortunately, no legislation was enacted into law. In the meantime, the federal government has increasingly relied upon states, local governments, and utilities to finance the funding gap. It is time for the federal government to re-assume its shared responsibility for clean water by making a significant commitment to help remedy the problems associated with our nation's water infrastructure.

Conclusion

ACEC's member firms built much of this nation's clean water infrastructure. We are now fighting an uphill battle to maintain the collective investment made by the federal government, states, and local governments. The job must be done, and will only be more expensive 10 or 20 or 30 years from now. The engineering community stands ready to help rebuild and replace the aging and failing infrastructure that puts so many communities and citizens at risk. We understand that Congress is facing a fiscal dilemma. The short-term budget realities, however, should not prevent Congress from recognizing the enduring need for a strong federal investment in water quality and in the security and stability of the nation's wastewater infrastructure.

On behalf of the member firms of ACEC, we look forward to working with you and the subcommittee to improve our nation's water infrastructure.

Thank you for your consideration.

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September 18, 2007

Honorable Frank Lautenberg, Chairman
Transportation Safety, Infrastructure Security
and Water Quality Subcommittee
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510-6172

Re: Meeting American's Wastewater Infrastructure Needs in the 21st Century

Mr. Chairman and Subcommittee Members:

The **National Onsite Wastewater Recycling Association** (NOWRA) representing the interests of the more than 60,000 professionals within the health, regulatory, engineering, academic, manufacturing, scientific and services sector of the decentralized wastewater industry, appreciates the opportunity to present this statement on the important topic before you today. NOWRA's mission is to promote sustainable wastewater management on a watershed basis. In considering the future of "*America's Wastewater Infrastructure*," onsite wastewater treatment and decentralized systems (including septics) must be considered as a critical integrated component.

We urge that the subcommittee validate the historical contributing role in the development and maintenance of the nation's water resources and wastewater infrastructure for the past century by ensuring that the resources for the integration of managed decentralized systems in the 21st century are addressed. The key points in this statement focus on the environmental and economic benefits of decentralized systems and the role they have in supporting in the nation's water quality goals and achieving a sustainable water resources infrastructure in the 21st century.

Following the enactment of the 1972 Clean Water Act, municipalities and utilities throughout the US, constructed and expanded a centralized wastewater infrastructure systems to address water pollution issues. In many parts of the country promises were made to communities using traditional septic systems they would be connected to "public sewers." In many rural areas today, these promises have not been fulfilled.

The situation that exists to day is that large segments of the U.S. are still using traditional septic systems, and newer communities have systems with more advanced technology. In many areas these older systems that have not been properly maintained or are in sensitive environmental areas need to be replaced with newer onsite technology that now effectively removes nitrogen and phosphorus. The costs of replacing these older systems with new technology are substantially less (by $12-15,000 per dwelling) when compared to costs passed to users of a centralized system to support construction of a new or upgraded wastewater treatment plant and collection system. But in many states, the mechanism does not exist to address this issue. Utilities hooking communities to public sewer have a method to impose front-foot benefit assessments that are placed on tax bills – often resulting in costs over a 20-year period to $50-60,000 per property owner.

In today's economy, and with increasingly stringent environmental controls affecting project implementation, it is unrealistic to posture that all of the nation's water resources infrastructure can be provided by municipal systems through a centralized infrastructure. Decentralized systems currently supply wastewater treatment capabilities for more than 30% of the nation's wastewater needs at a substantially more affordable cost. The technology developed for these systems that exists today provides vital capacity for achieving sustainable development goals within a distributed watershed management environment, at much less cost.

Maintaining the integrity of sustainable watershed goals for the 21st century infrastructure also means that the growing issue of depleting the nation's groundwater in certain parts of the US must be addressed with changes in regulations and policy. Groundwater recharge, including treated septic tank effluent, is a systematic and important contributor to river base flows during times of drought. In many areas of the US, groundwater is used as a potable water source. To both preserve and manage this resource for the future, States need to discontinue the practices of withdrawing groundwater and placing it into surface water bodies. This practice of not returning this valuable resource to the earth not only impacts vital water-bearing aquifers, it also leads to unforeseen pollutant problems such as saltwater intrusion of groundwater, particularly in coastal areas.

The advancements achieved in onsite wastewater technology, particularly over the past 20 years, for the use of decentralized systems, are also a contributor to the economics of the nation's housing and employment sectors. This is now a $2.5 billion industry that has demonstrated its significance in filling a critical "affordable" wastewater infrastructure void, by self-funding its investment in research and technology, without the support of federal subsidies. To disregard these many important attributes of decentralized systems is to blatantly ignore the significant and long-term investment made by an industry on technologies that are effectively demonstrating their abilities to protect the nation's watersheds and water quality, achieve sustainability solutions for the 21st century infrastructure.

These accomplishments have not occurred overnight, nor have they been without conflict. In 1997 the U.S. Environmental Protection Agency reported to Congress that "*adequately managed decentralized wastewater treatment systems are a cost effective and viable long-term option for meeting public health and water quality goals. The report also identified barriers that exist to achieving these goals.* Industry has taken on these challenges and is successful accomplishing them.

As an example, in March 2007, NOWRA hosted the 1st international conference in the U.S. on "*A Decentralized Water Resources Infrastructure for a Sustainable Future.*" This event brought together for the first time ever a distinctive group of North American and International experts to share their knowledge, research, expertise, strategies and case studies for achieving sustainability, future water resources and the use of decentralized systems. It also included political representatives.

However, the International Program wasn't just about wastewater—it brought together multiple aspects of conservation, sustainability and decentralization that are applicable to the entire water industry. It featured speakers from all sectors of the continent to share their country's experiences and innovations in the decentralized industry. From Australia to Malaysia, China to Israel, and Germany to Ireland, England, France, the Netherlands, these international professionals presented their ideas on such diverse topics as sustainable systems, rainwater harvesting, green roof design and watershed management. The lessons learned – the U.S. lags behind in establishing policies to

implement a sustainable water resources infrastructure – and that there needs to be a more integrated process among the entities responsible for this work.

As part of its work on this important topic the National Onsite Wastewater Recycling Association encourages the subcommittee to consider the following actions.

- Recognize that the 21st Century Wastewater Infrastructure must integrate more than just pipes and plants: it must include planning for sustainability with decentralized systems both for water and wastewater.
- Incentives for a green infrastructure which is the use of soil and vegetation and reuse of resources must be incorporated.
- Establish a research and development to rebuild US capacity in water-related science and engineering.
- Review and change regulations affecting State's clean water revolving fund programs, to enable long neglected areas and problems affecting water quality to be addressed.

We appreciate the opportunity to present this information and your consideration of our views. NOWRA stands ready to provide your staff with technical assistance needed with language to address these issues.

Linda Hanifin Bonner, Ph.D.
Executive Director

STATEMENT OF LARRY W. FREVERT, P.E. PRESIDENT

AMERICAN PUBLIC WORKS ASSOCIATION

BEFORE THE SUBCOMMITTEE ON TRANSPORTATION SAFETY, INFRASTRCUTURE SECURITY AND WATER QUALITY

COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS

"MEETING AMERICA'S WASTEWATER INFRASTRCUTURE NEEDS FOR IN THE 21ST CENTURY"

Mr. Chairman and members of the Subcommittee:

My name is Larry Frevert, President of the American Public Works Association (APWA). I submit this statement today on behalf of the professionals of APWA and am pleased to submit this testimony for the record for the hearing by the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality on "Meeting American's Wastewater Infrastructure Needs in the 21st Century." We commend you for your leadership and thank you for this opportunity to share our views on this critical matter.

APWA represents over 29,000 members who design, build, operate and maintain transportation, water supply and wastewater treatment systems, waste and refuse disposal systems, public buildings and grounds, and other structures and facilities essential to the economy and our American way of life. Public works professionals serve a diverse range of local communities, municipalities, cities, townships, villages and districts, whether large or small, urban or rural. Every day, every hour, every minute APWA members are dedicated to providing safe and reliable services to their communities.

Public works professionals are on the ground and in the trenches daily and see first hand the condition of the nation's infrastructure. Bridges and highways are the most obvious and visible examples of the critical infrastructure that is the backbone of America. While less glamorous the nation's wastewater infrastructure is no less vital. Wastewater treatment facilities operate every day removing contaminants and pollutants before the water is discharged back into local waterways. These essential facilities maintain the safety of drinking water, the water quality of our rivers and lakes and the public health of our cities and communities.

Yet our current wastewater infrastructure is strained to the breaking point. The American Society of Civil Engineers in 2005 rated the state of America's wastewater infrastructure as a "D-"in its *2005 Report Card of America's Infrastructure.* The *Report Card* attributes the poor physical condition of many of the nation's 16,000 wastewater treatment systems due to the lack of investment in plant, equipment and other capital improvements as the main cause for this nearly failing grade. Other factors contributing to the deteriorating of the state of the nation's wastewater infrastructure including aging infrastructure that is reaching the end of its design life, growing populations, and more expensive federal regulations to address wet weather, emerging contaminant, nutrient removal, total daily maximum loads and other important challenges. Local governments are now shouldering more than 95% of the cost of meeting clean water obligations[1]. Moreover, as costs for wastewater infrastructure continue to grow so too do competing needs for public capital. Public works departments across the nation struggle to continue to serve their communities by satisfying competing needs and meeting federal requirements.

While the federal government's investment in wastewater infrastructure since the passage of the Clean Water Act has been considerable and has brought tremendous success in improving the nation's water quality, recent trends demonstrate that the federal government's commitment to the federal, state and local government partnership has not kept pace with current needs and demands. The nation is facing a funding gap of $300 billion to $500 billion over the next 20 years between

[1] U.S. Conference of Mayors. Who Pays for the Water Pipes, Pumps and Treatment Works? – Local Government Expenditures on Sewer and Water – 1991-2005. http://www.usmayors.org/urbanwater/07expenditures.pdf.

current levels of spending for wastewater infrastructure and total funding needs, according to the United States Environmental Protection Agency[2], the Congressional Budget Office[3] and the Water Infrastructure Network[4].

Since 1987 the Clean Water State Revolving Fund (CWSRF) has been the primary source of federal funding for wastewater infrastructure projects. Projects funded with CWSRF monies create jobs, grow local economies, protect the environment and increase the quality of life for local communities. Yet appropriations to the CWSRF have dropped considerably and consistently since 2003. The CWSRF program is a proven and pragmatic program that provides local communities with the resources they need to address local wastewater challenges. While progress made by the federal, state and local governments working in partnership to address the nation's water quality challenges has been considerable, it is clear more needs to be done now to address the immediate needs of local communities. In order for this successful partnership to continue there must be a federal recommitment to making the nation's wastewater infrastructure funding a priority.

To address the funding crisis, critical and difficult choices among competing needs will need to be made and a long term sustainable, and equitable solutions should be crafted. Foremost, however, there must be a federal recommitment to clean and safe water by reauthorizing and recapitalizing the CWSRF. To immediately demonstrate this recommitment APWA urges the Committee and your Senate colleagues to pass legislation that provides significant new funding to the CWSRF, at a level of $10 billion to $20 billion over the next five years. Furthermore, Congress must follow through with this recommitment by appropriating the full amount of authorized funding each year. To do otherwise would result in a hollow commitment to the nation's waters and local communities.

As the Committee moves forward, it may wish to follow the approach taken by the House in the Water Quality Financing Act of 2007. The bill, which passed the House in an overwhelming 303-108 vote, would provide $14 billion over four years for the CWSRF and would require a GAO study of revenue sources for a clean water trust fund similar in nature to the Highway Trust Fund or the Harbor Maintenance Trust Fund. A sustainable, dedicated and long term source of funding would help to address future wastewater infrastructure needs and demonstrate that clean and safe water is no less a national priority than the nation's interstate highways. Clean water issues cross state borders and know no political bounds. As a member of the WIN Coalition, APWA worked for and supported the passage of the Water Quality Financing Act of 2007 and we urge the Senate to pass similar legislation this session.

While the financing of wastewater infrastructure projects varies by local conditions and needs, the CWSRF is a critical component that must remain viable. Localities base their infrastructure financing decisions on a variety of factors and market conditions. For some communities the CWSRF is not the best option because of the administrative complexities and bureaucratic requirements that come with CWSRF funding. However, for some other communities CWSRF

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[2] U.S. Environmental Protection Agency. The Clean Water and Drinking Water Infrastructure Gap Analysis (2002). http://www.epa.gov/safewater/gapreport.pdf.

[3] Congressional Budget Office. Future Investment in Drinking Water and Wastewater Infrastructure (November 2002). http:// www.cbo.gov.

[4] Water Infrastructure Network. Clean and Safe Water for the 21st Century (2000). http://www.win-water.org/reports/winreport2000.pdf.

funds have enabled those communities to leverage more dollars from the market. Finally, for some communities critical wastewater infrastructure projects are only possible because of CWSRF funds.

The CWSRF is not perfect and some improvements to the program are needed. We recommend the following as the Committee considers reauthorizing the CWSRF: reducing the complexity of the application process; expansion of eligible activities that can be funded with CWSRF funding, including innovative and alternative approaches to reduce non-point sources of pollution, sanitary and combined sewer overflows and green infrastructure and technologies; expanded loan terms from 20 years to 30 years; providing more opportunities for grants or no interest loans to the smallest and needs communities; and modifying current tax law to expand the use of private activity bonds used for wastewater infrastructure by removing state volume caps. A financial crisis of this magnitude will require multiple solutions in the short term.

There is no doubt that the controversy over prevailing wage requirements under Davis-Bacon rules will be debated during this legislative process. We understand that the political climate is one where we will not see a roll-back of the prevailing wage requirements even though these requirements are a burden for some communities; we will support a bill that includes Davis-Bacon provisions. However, we caution the Committee to carefully avoid adding new burdensome provisions that would increase the complexity or reduce existing flexibility to the program.

We commend the Committee for the leadership you are showing by taking on this critical issue and we very much appreciate the opportunity to share our views and recommendations with you. We look forward to working with the Committee as you move forward to renewing the federal commitment to making the nation's critical wastewater infrastructure a national priority.

ASIWPCA
Association of State and Interstate
Water Pollution Control Administrators
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Testimony on
Reauthorization of the Clean Water State Revolving Loan Fund

Before the Senate Subcommittee on Transportation Safety, Infrastructure Security and Water Quality

September 19, 2007

The Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) greatly appreciates the leadership the Committee has so quickly taken to reauthorize the Clean Water State Revolving Fund (CWSRF). We further appreciate the Committee's recognition that the CWSRF is the appropriate vehicle for future infrastructure financing and needs increased funding in the appropriations process.

History of the CWSRF: In the early 1980's, the Office of Management and Budget (OMB) informed States that the Administration would phase out the Federal construction grants program unless States and Congress found a better vehicle. The grant program was too expensive, burdensome and could not fund enough projects to meet the needs. Congress and the States met that challenge, creating the CWSRF in 1987. Since the fund grows over time and revolves, the CWSRF serves as a major source of funding for Clean Water Act implementation *in perpetuity* for:

Traditional wastewater infrastructure and pollution control
Combined sewer overflow correction
Stormwater management
Nonpoint source pollution control (e.g., agriculture)
Implementation of estuary management plans
Assessment and watershed solution development by States, local and regional governments.

Needs: The Committee has asked ASIWPCA to speak to the needs. There are several dimensions to the issue. The capital funding needed for the above activities exceeds well over $ 400 Billion. This is a conservative estimate. Requirements and expectations for pollution sources increase every year. The cost of watershed protection and clean up will be expensive, but has not been quantified for the substantial percentage of assessed waters that are impaired because they exceed State water quality standards or are threatened with becoming so:

	Assessed Waters Needing Further Pollution Controls
Rivers (miles)	16%
Lakes (acres)	53%
Estuaries (sq. miles)	55%
Great Lakes (shore line miles)	100%

Maintaining water quality is also a significant challenge as population, economic growth, and public use of water resources increase over time. The resulting increase in pollution loadings must be addressed, or the nation risks sliding back to the water quality of the 1970's.

There are 16,000 publicly owned wastewater systems in the nation, most of which are small. 23% of funding associated with their capital expenses has been Federal. While over the last 30 years the focus has been on upgrading treatment facilities and expanding systems, it has expanded to address the need to renew and replace aging infrastructure. In areas where the nation's population is becoming most concentrated, the major challenges are municipal discharges and urban runoff.

The recent declines in Federal Funding and the potential to eliminate further capitalization most certainly will affect water quality and attainment of the Clean Water Act, because the Fund is not large enough to meet these many needs. A better capitalized CWSRF is essential for States to be successful helping municipal systems and other sources upgrade and put other controls in place to achieve the Act.

Progress: CWSRF is one of the most successful Federal programs in history, because it is a *streamlined, State-based* program. Since its creation, the CWSRF has addressed a wide array of water quality problems, with projects built in half the time and at less cost than under the Federal grants program. Since 1987:

- More than $24 Billion in Federal funds has been appropriated. With the additional State match, leveraging by States in the bond market, and loan repayments, there is over $61 Billion in State CWSRFs. Due to the high demand for CWSRF funding, virtually all those funds have been loaned out.
- Over 18,600 projects have been funded.
  - In 2006, over $5 Billion in loans were executed.
- Cities and towns of all sizes have benefited:
  - 44% of funds went to projects serving populations of 100,000 and above.
  - 64% of loans went to communities with populations under 10,000.
- In the last 5 years, $1.1 Billion in assistance has been for nonpoint sources.
- Loans can be made based on affordability – e.g. at low to zero interest. Cumulatively, the CWSRF has saved borrowers $17.5 Billion (54%), with an average interest rate of 2% recently.
- Each Billion in CWSRF funding creates 16,000 – 22,000 jobs in the short term (up to 5 years) and 5,000 in the longer term. In addition, many more jobs are created as a result of watershed revitalization, e.g. due to restoration of recreational waters and city river fronts.

[For environmental results achieved recently under the program see attachment]

Recommended Principles in Reauthorization: As Congress seeks to reauthorize the CWSRF, it is vitally important to:

- Continue and increase capitalization levels for the Fund and increase annual appropriations.
- Assure the CWSRF remains competitive in the financial market place.
- Maintain a streamlined and State based program.
- Enable States to direct funding to their diverse priority water quality needs – for each State is unique.

Careful attention needs to be given to the collective impact of any new requirements. The CWSRF's effectiveness in achieving environmental results should not be weakened in any significant way. In addition ASIWPCA recommends:

- The CWSRF should continue to be maintained as the umbrella funding mechanism for achieving goals of the Act in the nation's watersheds.

- The States' ability under the CWSRF should be expanded to:

    - Fund a broader range of eligibilities,
    - Extend loan repayment periods,
    - More adequately cover State administrative costs,
    - Allow States to blend financing mechanisms (loans and principal subsidies) to make projects more affordable, and
    - Enable States to better provide planning and technical assistance, particularly to small entities.

We urge the Committee to:

- Continue State ability to transfer funds between the Clean Water and Drinking Water SRFs.
- Avoid USEPA micromanagement so that States can focus on environmental results.

Mr. Chairman, we applaud the Committee for moving forward to reauthorize the Clean Water Act State Revolving Loan Fund in this Congress. Understandably of equal importance is the Committee's strong support for increasing funding in the appropriations process. These actions are needed to continue to improve the nation's water quality and maintain the significant progress we all have achieved. We, at ASIWPCA, are eager to work with you and your fine staff to move the nation forward in the pursuit of cleaner water. We appreciate the opportunity to testify and we are available at any time to discuss the recommendations provided in this statement.

Linking CWSRF Financing to the Protection and Restoration of our Nation's Waters

(Based on initial reporting of recent projects, that account for approximately 17% of cumulative CWSRF financing.)

$11.1 Billion in CWSRF Loans

3,547 Projects Financed

$3.9 Billion of cost savings...

...to 1,297 Communities

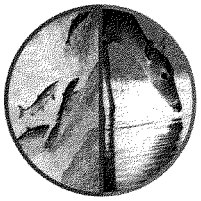
91 Million People Served

13 Billion Gallons Per Day Treated

Funding for Clean Water Act Goals

- $8.0 billion to improve water quality
- $6.2 billion to achieve compliance
- $7.4 billion to protect and restore freshwater fisheries
- $2.1 billion to protect and restore drinking water sources
- $7.8 billion to protect and restore recreational uses

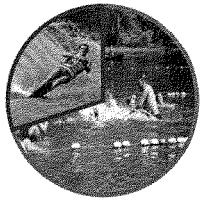
Public Health Improves for Millions of Americans:
CWSRFs Protect & Restore Impaired Rivers, Lakes, & Streams



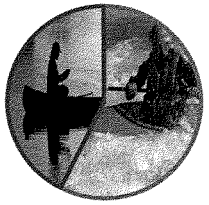
Aquatic Life & Wildlife
26.4 million
people served

Drinking Water Supply
6.2 million
people served

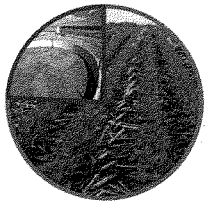
Fish & Shellfish Consumption
15.2 million
people served



Swimming
(Primary Contact Recreation)
23.0 million
people served



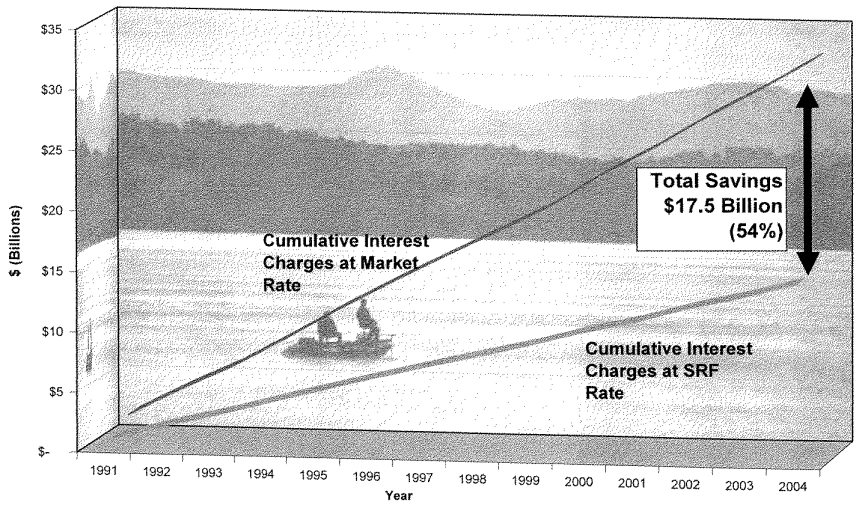
Boating, Fishing
(Secondary Contact Recreation)
27.6 million
people served



Aesthetic, Agricultural,
and Other Uses
8.9 million
people served

* The figures are based on initial reporting of recent projects that account for approximately 16% of cumulative CWSRF financing.
** These population numbers do not include downstream populations and thus underestimate total public health and environmental benefits.

CWSRF Financing Gives Borrowers Significant Interest Savings over Market Rate Loans

- Between 1991 and 2004, communities saved a total of approximately $17.5 billion in interest charges due to lower interest rates in the SRF program.

Cumulative Interest Savings Market Rate vs. SRF Rate 1991-2004