S. HRG. 107–316

WATER AND WASTEWATER INFRASTRUCTURE NEEDS

HEARING

BEFORE THE

SUBCOMMITTEE ON
FISHERIES, WILDLIFE, AND WATER

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

ON

ASSESSING THE STATE OF THE NATION'S SUPPLY OF CLEAN WATER

MARCH 27, 2001

Printed for the use of the Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE
78–067 PDF WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SEVENTH CONGRESS
FIRST SESSION

BOB SMITH, New Hampshire, *Chairman*
HARRY REID, Nevada, *Ranking Democratic Member*

JOHN W. WARNER, Virginia	MAX BAUCUS, Montana
JAMES M. INHOFE, Oklahoma	BOB GRAHAM, Florida
CHRISTOPHER S. BOND, Missouri	JOSEPH I. LIEBERMAN, Connecticut
GEORGE V. VOINOVICH, Ohio	BARBARA BOXER, California
MICHAEL D. CRAPO, Idaho	RON WYDEN, Oregon
LINCOLN CHAFEE, Rhode Island	THOMAS R. CARPER, Delaware
ROBERT F. BENNETT, Utah	HILLARY RODHAM CLINTON, New York
BEN NIGHTHORSE CAMPBELL, Colorado	JON S. CORZINE, New Jersey

DAVE CONOVER, *Republican Staff Director*
ERIC WASHBURN, *Democratic Staff Director*

SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND WATER

MICHAEL D. CRAPO, Idaho, *Chairman*

CHRISTOPHER S. BOND, Missouri	BOB GRAHAM, Florida
JOHN W. WARNER, Wyoming	MAX BAUCUS, Montana
LINCOLN CHAFEE, Rhode Island	RON WYDEN, Oregon
BEN NIGHTHORSE CAMPBELL, Colorado	HILLARY RODHAM CLINTON, New York
	JON S. CORZINE, New Jersey

C O N T E N T S

Page

MARCH 27, 2001

OPENING STATEMENTS

Bond, Hon. Christopher S., U.S. Senator from the State of Missouri 2
Chafee, Hon. Lincoln, U.S. Senator from the State of Rhode Island 20
Clinton, Hon. Hillary Rodham, U.S. Senator from the State of New York 8
Corzine, Hon. Jon S., U.S. Senator from the State of New Jersey 18
Crapo, Hon. Michael D., U.S. Senator from the State of Idaho 1
Smith, Hon. Bob, U.S. Senator from the State of New Hampshire 26
Voinovich, Hon. George V., U.S. Senator from the State of Ohio 3

WITNESSES

Beecher, Janice, Beecher Policy Research, Inc., Indianapolis, Indiana, on behalf of the H_2O Coalition 38
Prepared statement 88
Responses to additional questions from:
Senator Chafee 97
Senator Crapo 94
Biaggi, Allen, Administrator, Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Carson City, NV 28
Prepared statement 82
Responses to additional questions from Senator Chafee 84
Sandoval, Jon, Chief of State, Idaho Department of Environmental Quality, Boise, ID 22
Prepared statement 53
Responses to additional questions from Senator Crapo 65
Schwartz, Paul, National Policy Coordinator, Clean Water Action, Washington, DC 40
Prepared statement 72
Stewart, Harry, Director, Water Division, New Hampshire Department of Environmental Services, Concord, NH 26
Prepared statement 77
Responses to additional questions from Senator Chafee 82
Struhs, David, Secretary, Florida Department of Environmental Protection, Tallahassee, FL 24
Prepared statement 70
Responses to additional questions from:
Senator Chafee 71
Senator Graham 72
Tobey, Hon. Bruce, mayor, Gloucester, MA, on Behalf of the Water Infrastructure Network 36
Prepared statement 84
Whitman, Hon. Christine Todd, Administrator, Environmental Protection Agency 6
Prepared statement 43

ADDITIONAL MATERIAL

Letters:
Associated Builders and Contractors, Inc. 100
Blowe, Bobby 110
City of Cape Coral, FL 113

Page

Letters—Continued
- Colorado Department of Public Health and Environmental 112
- Colorado Water Resources & Power Development Authority 113
- Iowa Department of Natural Resources 106
- Louisiana Department of Environmental Quality 108
- Michigan Department of Environmental Quality 111
- Montana Department of Environmental Quality 107
- Nebraska Department of Environmental Quality 110
- Oregon Department of Environmental Quality 103
- State of Oklahoma Water Resource Board 101
- Texas Water Development Board 109
- Tucson Water Development 140
- Utah Department of Environmental Quality Division of Water Quality 104

Report, Water Infrastructure Network 123

Statements:
- American Society of Civil Engineers 98
- Association of Metropolitan Sewerage Agencies 114
- Campaign for Safe and Affordable Drinking Water 75
- Clean Water Action 98
- Water Environment Federation 67

WATER AND WASTEWATER INFRASTRUCTURE NEEDS

TUESDAY, MARCH 27, 2001

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND WATER,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room 406, Senate Dirksen Office Building, Hon. Michael D. Crapo (chairman of the subcommittee) presiding.

Present: Senators Crapo, Bond, Chafee, Voinovich, Reid, Clinton, Corzine, and Smith [ex officio].

OPENING STATEMENT OF HON. MICHAEL D. CRAPO, U.S. SENATOR FROM THE STATE OF IDAHO

Senator CRAPO. The subcommittee will come to order.

This is the Subcommittee on Fisheries, Wildlife, and Water hearing on water and wastewater infrastructure needs. I appreciate our witnesses joining us here today to examine the infrastructure needs in America for potable water supplies and sewage treatment and removal.

Administrator Whitman, it is good to see you here with us again. Thank you for coming. We appreciate your joining us on such an important issue to this committee. In fact, I have noted in a number of context how critical clean water is to us in America. I should parenthetically note, a very broad survey was just done in my home State of Idaho asking people to list what their most important environmental concerns were, and clean water, in two different ways, were No. 1 and No. 2 on the list. I think that indicates probably the way it would be in most States. Clean water and clean air are some of the most critical things that we can deal with, and that underscores the importance of this hearing today.

I also welcome our other witnesses here today and especially want to recognize Jon Sandoval from the Idaho Department of Environmental Quality. Jon, thank you for being here. He will be on our second panel.

Infrastructure needs continue to gather attention and interest from all sides including States, utility providers, and the public. More and more often, we see reports of failing infrastructure, in many cases a legacy of previous times and conditions and of previous management decisions. We are also seeing growing examples of communities that cannot financially meet obligations placed upon them by the environmental and public health regulations.

These episodes are not limited to any region of the country or to any size of system. Each and every member of this committee is familiar with a case in his or her own State of a water or a wastewater system unable to meet current demands. These examples include: crumbling transmission systems, treatment works needing upgrades or replacement, weather-related stresses, and other problems. These situations affect both the public and private systems.

As public servants, we are driven to want to help. But before we can do so, we must have a better understanding on the magnitude of the problem that we are trying to address. That is what brings us here today.

Future hearings in this subcommittee will explore other components of this challenge. Today, however, we are trying to answer one simple underlying question: How big is the problem of water and wastewater infrastructure needs in America today?

To get there, we ask our witnesses today to help us with this challenge by providing their perspectives on the size of the problem. We would also appreciate their ability to document their findings so that we are able to compare apples to apples, so to speak.

Although there is undoubtedly no shortage of issues and of recommendations about how we can solve this problem that many I am sure are eager to share with us, I hope that our panelists today will save those for another time and another hearing. I assure you that we will hold those hearings.

Before too bleak a picture of the needs situation in this country is projected today, however, I would like us all to remember that our community utilities are generally solid and managed well. Despite episodes of pipes failing or public exposure contaminants, most systems are striving to meet current demands and responsibilities.

This is simply a question of recognizing that we can do better to ensure that the public and the environment are served efficiently and effectively by the resources invested in this area.

With that, I once again thank our witnesses for joining us. We look forward to their important testimony that they will provide on this issue today.

Senator Bond.

OPENING STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE STATE OF MISSOURI

Senator BOND. Thank you very much, Mr. Chairman. Thank you for outlining the importance of this issue. Drinking water and wastewater quality are critical elements in environmental protection and economic success. We can say that the economic vitality and a community's livelihood is directly tied to its water systems. But we also know from a few isolated instances that when the systems break that is when we have some real human health problems. There is nothing that has a more direct impact on a community's health than to have either the wastewater treatment facility go down or the public drinking supply, the safe drinking water protections become inadequate. This is an environmental problem. It is a human health problem. It is one of the very most important environmental problems we face.

Now my colleagues have probably heard me talk too much about all the prejudices I carried into this job from being a Governor. But nothing ticked me off more as Governor than to look at all the Federal mandates placed on States and local governments. Without adequate resources, without support for carrying out the great plans that the Olympians on Capitol Hill in Congress imposed on States and localities—and very often they told us to do things that did not make sense—we were forced to devote our resources to areas that were lower environmental priorities than the priorities we had established in the State. So I came in with a history on this. I came in with a strong feeling that we needed to do our job, and do our job properly.

I have had the pleasure of serving as chairman of the appropriations subcommittee that funds EPA. That is why I look forward to working with my good friend, Administrator Whitman, fellow former Governor, because in the past we have had to undo some very bad budget recommendations. Under the past Administration, they talked the talk about safe drinking water and clean water but they did not walk the walk. Each year came in with big slashes in the State Revolving Funds program and they moved that money into all kinds of new ideas in the environment. Well, frankly, we need to take care of some of the old ideas, and clean water, safe drinking water are not only the old ideas, they are still some of the most important ideas.

I believe that the requirements that we have put on the States and the communities are good for the environment, they are good for public health. But the Federal Government has to continue to provide resources for them. I expect that when the Bush Administration details will come out on the budget we will see them recognizing the importance of the drinking water and clean water revolving funds.

We also know, and I think this is a good place to kick it off, that we are going to have to revisit the Federal role to determine what we can do and what we should be doing in this entire area. There are frightening statistics about the need for capital investment in the structure. Frankly, as one who serves on both the Budget and the Appropriations Committee, I can tell you that these needs are well beyond what is foreseeable under any reasonable budget scenario that I have heard of on the Hill.

I intend to continue to champion and fight for the State Revolving Funds, for other sound investments. We, in this committee, with the help and leadership of the EPA, must determine what the appropriate role is and how we can best go about meeting our needs.

So, Mr. Chairman, this is a vitally important hearing. I thank you for calling it. I look forward to hearing our witnesses today.

Senator CRAPO. Thank you very much, Senator Bond.

Senator Voinovich.

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

Senator VOINOVICH. Chairman, although I am not a member of this subcommittee, I appreciate having the opportunity today to participate.

Senator CRAPO. We welcome you.

Senator VOINOVICH. I look forward to working with you, Mr. Chairman, to address the incredible unmet water and water infrastructure needs of our country.

The state of our Nation's water and wastewater infrastructure has been a longstanding concern of mine. It is an issue that I have been involved with as a county commissioner, a State legislator, mayor, Governor, and now a U.S. Senator. As Mayor of Cleveland, for instance, I saw rates increase dramatically to deal with the city's dual water infrastructure problems, drinking water and wastewater treatment. Currently, my State's water infrastructure needs are estimated at $12.4 billion; that is $5 billion for drinking water, and $7.4 billion for wastewater.

We are now faced with a rumbling of a rebellion across the country as communities struggle to deal with aging infrastructure, growth, and increasing Federal water quality requirements. Many communities face the realization that they will have to obtain the revenues to conduct those costly overhauls locally. Of course, the general public considers rate increases as they do taxes. With the reaction to the dramatic rise in energy costs and other necessities, such as health care, it is easy to understand why the public is concerned with increasing water and sewer rates—and they are going up astronomically all over this country.

As Governor, I worked with the National Governors Association, as the Administrator knows, to identify unfunded mandates on our State and local communities, and I thought we did a pretty good job with the unfunded mandates relief legislation that we were able to get through Congress. Water infrastructure is no exception. In December of last year and earlier this month, I conducted two meetings in Ohio with several Ohio communities to discuss the extent of their water infrastructure needs and how the Federal water quality requirements affect their ability to meet those needs. The folks dealing with the problem at the local level are being mandated to fill a whole host of Federal requirements, some of which appear to defy common sense and cannot be justified through cost-benefit analysis, risk assessment, and good sound science. With increasing requirements, these communities just cannot do it by themselves.

Because of my frustration with unfunded mandates, I have been working toward improving the condition of our Nation's water infrastructure and helping communities cope with the high cost of compliance. That is why I introduced legislation earlier this year that would reauthorize the highly successful but undercapitalized Clean Water State Revolving Loan Fund. My bill, the Clean Water Infrastructure Financing Act of 2001 will authorize $3 billion per year over 5 years, for a total of $15 billion.

In addition, one of the bills I pushed especially hard last year was the Wet Weather Quality Act, that is H.R. 828 that came over from the House. This bill, which was enacted as part of the Consolidated Appropriations Act in December, created a $1.5 billion grant program to help localities deal with CSO and SSO problems. We are hopeful that in the budget of the Administration and in appropriations that the first $750 million of that grant program will

be made available to help these communities represented here today.

In the longer term, we need a larger program to close the gap in water infrastructure investment. I do not know what dollar amount Congress can ultimately approve. But I am in favor of talking about the cost incurred by localities as a result of actions taken by the Federal Government, this is the unfunded mandates that are passed on by Washington, and seeing what we can do to alleviate the situation.

Toward that goal, I have asked the General Accounting Office to conduct a study of the unmet infrastructure needs of our Nation in order to get a better handle on exactly what those needs are. This includes items such as: highways, mass transit, airports, drinking water supply, wastewater treatment, public buildings, water resources, flood control and navigation, and hydropower generating facilities. For each infrastructure area, the GAO will look at those needs estimates and figure out just what they are going to cost. The GAO will also identify good and bad examples of such estimates and where there is room for improvement.

I would like to get a sense today from the witnesses of what you are being asked to do and what you need to do to get the job done. Does what the Federal Government is asking you to do make sense? Does it make sense what you are being asked to do? For example, the city of Mansfield, OH, faces rate increases of up to 300 percent to improve the quality of wet water overflows that is already at or better than the water qualities of the receiving stream. Here they are taking care of their problem, they have got a holding tank, they put it in, they treat the water after the storm, they put it back in the stream, it is at higher quality, and they are being told, "No, that is not good enough, we want you to go beyond that." So their bills are going to go from about $40 a month to $100 a month. So we need to look at that.

If Federal regulations do make sense, does the Federal and the State organizations have the capacity to implement them?

Finally, how are we going to pay for it? What is the partnership going to be—how much Federal, how much State, and how much local—to get the job done?

I thank you all for being here, particularly, Administrator, your being here today. I look forward to your testimony and the testimony of the other witnesses.

Senator CRAPO. Thank you, Senator Voinovich.

We will have a number of other Senators joining us. It is a busy morning and a number of other committees are operating. As those Senators arrive, we will, at appropriate junctures, interrupt and let them make their opening statements.

However, at this time we will go to our witnesses and begin the process of hearing from them.

By way of introduction and instruction to all of the witnesses, you should have each been advised that we ask you to limit your verbal testimony today to 5 minutes. I realize that you have a lot more than 5 minutes' worth to say. There are very few people who come and testify before our panels who can actually say everything they want to say in 5 minutes. But we do have your written testimony. We do like the opportunity to engage in dialog with you fol-

lowing your testimony. That gives you an opportunity to fill in some of the things that you may not have had a chance to say when you summarized your testimony.

But we do have a system of lights up here to help you remember that we would like you to summarize in 5 minutes. The green light stays on for I believe 4 minutes, the yellow light comes on when 1 minute is left, and the red light comes on when the 5 minutes have expired. We ask that when the red light comes on you summarize your thought at that point and conclude. If you miss that, I will kind of lightly tap the gavel here to remind you so that we can keep the hearing moving along. We hate to do that but we find that we have incredibly busy schedules here and we do want to get to the point where we can have dialog with you.

So with that, Administrator Whitman, we again appreciate your being with us today and invite you to give your testimony.

STATEMENT OF HON. CHRISTINE TODD WHITMAN, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Ms. WHITMAN. Thank you very much, Mr. Chairman. I am pleased to be here and with members of the subcommittee and the full committee. With your permission, I would like to proceed exactly the way you outlined, and offer a brief opening statement and submit a longer, more detailed one for the record.

Senator CRAPO. Please do.

Ms. WHITMAN. Mr. Chairman, over the past 25 years, America has made great progress in reducing water pollution and assuring safe, affordable, and abundant supply of drinking water to our people. The Clean Water Act, the Safe Drinking Water Act have provided a solid foundation for our progress.

We can be proud of the work that has been done with partnerships among all levels of government and with the private sector. This work has made a real difference in the quality of life of all Americans. Our drinking water system is among the safest and most reliable in the world. The 265 million Americans who rely on public water, they can have full confidence that the water they use is safe for them and safe for their families.

We can, however, do better. As you know, the primary mechanism EPA uses to help local communities finance water infrastructure projects is the State Revolving Loan Fund, or SRFs. These funds provide States with moneys from Washington that they can then use to manage, maintain, or improve their water systems.

Because this is a revolving fund, the money invested in SRFs provides about four times as much purchasing power over 20 years as straight grants would. In addition, because the funds make loans to local communities at below market rates, communities have over the years saved their taxpayers millions of dollars.

It is also worth noting that almost three out of every four loans made for drinking water SRF projects have been provided to small water systems that usually have a difficult time obtaining affordable financing. These funds have made an important contribution to our success in cleaning America's water.

But the job is clearly not finished.

Under the law, EPA is required to take a periodic look at water infrastructure investments needed around the country. Last month,

the EPA released the second of such reports. The bottom line, Mr. Chairman, is that we foresee the need for $150 billion over the next 20 years to ensure the continued safety of our drinking water supply.

In addition, several interest groups, including the Water Infrastructure Network and the Association of Metropolitan sewerage Agencies, have also issued reports estimating water infrastructure needs. Their estimates are quite a bit above ours, largely because we only include projects with documentation that are eligible for SRF funding, and that is critical to how we administer that program.

No matter which estimates you use, there are several key components of water infrastructure funding that must be more fully evaluated. These include: population growth, aging infrastructure, emerging environmental and public health demands, increasing operation and maintenance cost, and maintaining affordability. We need to keep affordability in mind as we move forward with both funding and regulatory proposals.

If I may digress for just a moment on a subject with respect to my recent decision on acceptable arsenic levels in drinking water. Last week I asked for more time to look at all the issues in respect to this question. That request for additional analysis does not mean that this administration will not lower the standard from the current 50 parts per billion. We will do so in time to meet the deadlines proposed in the rule of last January, the year 2006.

What I want to ensure, however, is that we have the opportunity to review the science behind the standard, and that the standard we set is not so expensive to implement, especially for water systems that serve America's small towns, that it ends up being self-defeating. Let me just give you an example of what I mean. I was in Denver last week for the Western Governors Association and in the course of that heard of the instance of a town in Arizona where water had been found to contain 90 parts per billion of arsenic. When the company was ordered to reach 50 parts per billion, they shut down their system, the 30 people who were left had no water, they had to drill their own wells, and they are now ingesting water at 90 parts per billion, with no way for us to mitigate that.

I want to make sure that we avoid unintended consequences such as these. Whether it is providing technical assistance or something else, we need to remember that these decisions do not get implemented in a vacuum. They have real consequences and we need to know how to address them. At the end of the day, however, we will issue new standards for arsenic and they will be based on strong science and solid cost-benefit analysis.

That being said, Mr. Chairman, I am pleased to report that the President's fiscal year 2002 budget maintains Federal support for both clean water and drinking water infrastructure. This administration proposes $1.3 billion for wastewater grants to States. This will provide a substantial and sustained contribution to clean water infrastructure needs, and is $500 million more than the Clinton administration's fiscal year 2001 request. The grants to States will help communities address combined and sanitary sewer overflows, in keeping with the important legislation you recently enacted in response to this need.

The administration also proposes to maintain capitalization of the drinking water SRF in the fiscal year 2002 budget. EPA expects that over the long term with maintained funding the drinking water SRF will be able to provide average annual assistance of $500 million.

Furthermore, in keeping with the President's commitment to focusing on goals rather than process, the administration supports the mechanism currently in law to give States flexibility to move funds between its clean and its drinking water revolving funds. Mr. Chairman, this proposed financing will help communities across America finance important clean water and drinking water projects.

As your committee continues to look at these issues, I am eager to be able to be part of that discussion, and the agency commits to working with you in any way that we can to ensure that we reach the proper decisions as we make these critical assessments relative to human health and to clean water. Thank you.

Senator CRAPO. Thank you very much, Administrator Whitman.

As I indicated, as Senators arrive, we would interrupt and let them make their opening statements. We have been joined by Senator Clinton. So before we go to questions for you, we will let Senator Clinton make her opening statement.

OPENING STATEMENT OF HON. HILLARY RODHAM CLINTON, U.S. SENATOR FROM THE STATE OF NEW YORK

Senator CLINTON. Thank you so much, Mr. Chairman. I very much appreciate you holding this hearing today. I think the issue of how we address our Nation's water and wastewater infrastructure needs is really one of the most pressing environmental and public health challenges in our country today.

I would like to welcome Governor Whitman and the other witnesses who will be here today.

Now, I know that this may cause some dispute in the audience, but I would have to say that New York has some of the best tasting water in the country. That has been proven time and time again by blind taste tests. It is apparently the secret to the unmatched quality of New York bagels, at least that is what we are told. So I have a unique and abiding interest in today's hearing.

But we also have some of the most pressing water and wastewater infrastructure needs in the country. According to the EPA's 1996 Clean Water Needs Survey, which is the most recent survey available, New York has the highest clean water infrastructure needs in the country; namely, about $16 billion. That should not be surprising since so many of our communities are relying on infrastructure that is 100 years or even older.

According to the EPA's 1999 Drinking Water Infrastructure Needs Survey, which was released just last month, New York has the second highest current and total drinking water infrastructure needs—$10.5 billion, and $13.1 billion, surpassed only by California.

While the national price tags that are being attached to our Nation's water and wastewater infrastructure needs may vary, they do have one thing in common. They are expensive. They are an issue that we cannot at our peril ignore.

Various agencies and organizations are estimating 20 year needs in the range of anywhere from approximately $300 billion to $1 trillion. But while the costs of upgrading and maintaining our water and wastewater infrastructure may be high, the cost of not updating these systems will be even higher.

In New York, for example, the lack of adequate wastewater treatment has led to significant water quality problems in Long Island Sound, impacts that are going to be difficult and costly to reverse. Sewer overflows continue to be the leading cause of beach closures across the country, including in New York. Although numbers are down, there were still over 165 beach closings and advisories in New York in 1999.

When people in this country take their families for a day at the beach, they do not question, or do not believe they should have to question, whether it is safe for their children to go in the water. When people turn on their taps, they should not have to question whether the water they are about to drink is safe. These are important quality of life issues that should not be taken for granted.

I have to say I have been a little concerned that our health-based drinking water standards have recently come under question by the new administration, as have the costs of meeting the new, more protective standards. Other proposed regulations that would affect the quality of our Nation's rivers, lakes, and bays are also being scrutinized.

Rather than rolling back standards, like the standard reducing arsenic in our drinking water, I think we should be rolling up our sleeves and investing in our Nation's infrastructure so that our water, whether it be the water we drink or the water we swim in, can be as clean and safe as possible. We should continue to update and improve our clean water and drinking water standards. We should also update and improve the funding for the systems needed to meet these new standards. I think that is why this particular hearing is so timely.

When we look at the needs that are out there, from New York to California, I think that many people are as concerned as those of us on the committee are. My guess is that if given a choice, many, many Americans would vote for clean water as opposed to a tax cut that might undermine our capacity to provide for that clean water. My hope is, though, that we have both, that we have discretion when it comes to the size of the tax cut, understanding that there are other important national needs, such as how safe our water is.

Many people today are talking about an energy crisis in our country. They talk about our infrastructure. They point to a lack of sufficient natural gas pipelines, or sufficient electric generating capacity, or sufficient numbers of transmission lines. But if we do not address our Nation's water infrastructure needs, some day soon people will be talking about a water crisis. That is something that I do not see any reason for us to have to confront. We should be able to take the steps necessary today to avoid that.

So I look forward to working with my colleagues in a bipartisan manner and with the administration to ensure that Americans continue to enjoy the cleanest and safest water in the world. Thank you, Mr. Chairman.

Senator CRAPO. Thank you very much, Senator Clinton.

I think it is pretty evident from the opening statements we have seen that this is an issue of critical importance. In fact, as I was thinking about the jurisdiction of this subcommittee over things such as water, the Endangered Species Act, and so forth, it represents some of the most critical environmental issues that this country faces. At the top of that list is water. We do have to make sure that we make the commitment at the Federal level to do what is necessary to assure that we have safe drinking water and clean water throughout the system.

In that context, Administrator, I will begin with some questions. As has already been indicated, the projections of what the need is over the next 20 years differ quite widely. As you indicated, the EPA's projections are about $150 billion. I think when you add in the previous reports of the EPA to cover both safe drinking water and our wastewater systems, it is about $300 billion. Some of the projections by other groups, such as the Water Infrastructure Network, get as high as $1 trillion.

Could you explain to us, if you know, why the wide variance between these projections?

Ms. WHITMAN. One of the reasons is what is taken into account. Because we use our estimates to decide on formulas that we give to the States through the SRF, we include current and documented future needs. What is happening in some of these other studies is they are looking at projected needs. As to what is coming down the pike, we are looking at aging infrastructures.

That is why the gap analysis is currently underway which will take a much more comprehensive look. One thing I wanted to ensure is that as we do that gap analysis, some of the work which has been done, it is being reviewed within the agency, but we are also going to be putting it out for peer review so that we can be able to have a meaningful dialog with you that will allow an apples to apples comparison. The problem is here whether you do a modeling system, and most of those others, the WIN report and others, are based on modeling systems. Ours are based on actual projects. That is one of the reasons why you see the big difference in the numbers.

Senator CRAPO. Do I understand correctly that the EPA's analysis includes only those projects that would qualify for funding under the grant or loan programs?

Ms. WHITMAN. That is correct.

Senator CRAPO. I think it is very critical that we do have the ability in this committee to compare apples to apples, so to speak. So it will be very helpful to us that, as the gap analysis proceeds and the other analyses that you talked about proceed, that you give us the ability to make those comparisons. This committee will ultimately have to make the decisions about whether to change or expand the Federal Government's approach to the funding for these needs. It is going to be critical that we not only understand the level and scope of the need, but that we understand whether we are talking about current needs or projected needs, and what that modeling is based on. So your help in that is tremendously appreciated.

Ms. WHITMAN. Absolutely. As you know, it is the directives that we have gotten from Congress that actually limits what we can look at. So that is why we want to be able to give you the information you need to make all the determinations required here.

Senator CRAPO. Would it also be fair to say, in your opinion, that although the EPA has directives as to how it must analyze and what it can evaluate, that the other projections that come from other groups, even though they may be based on different approaches, nonetheless identify critical needs that we need to address before the committee?

Ms. WHITMAN. I would say so, yes. Because they use modeling does not make it incorrect. We may use different tools, but when you are looking and understanding that you are talking about systems that are over 100 years old in some cases, you are talking about areas where you have had a great increase in growth in population that has put a different strain on the system, these are all legitimate considerations to be taken into account.

Senator CRAPO. That is going to put a strain on the ability of this committee and those of us in Congress to identify a solution, because when you have a disparity of $300 billion to $1 trillion, which of those estimates or where you fall somewhere in between can have a tremendous impact on what type of an approach must be determined and utilized.

So, again, we will look forward to whatever advice and guidance that the EPA can provide us as we approach this to evaluate where we must draw the line and how we must provide those resources. I believe that there will be a very strong commitment on both sides of the aisle to provide those needed resources. Which is why we are here, to try and make sure that we have a good handle on what they are.

The recent Drinking Water Needs Survey indicates a level comparable to the previous survey. But the proportion of current needs versus future needs has grown considerably. Would this indicate to you that many systems are increasingly coming to the end of their projected life? Or what is the reason that we see such a shift into current needs as opposed to the future needs?

Ms. WHITMAN. That is precisely it. Some of those projects that back in 1996 were future are now current. The time is now. The systems are aging. As I indicated, we have new standards on drinking water in some instances which have required and will require changes to the infrastructure. Also, you do have new pressures from development; new people coming on to systems and asking the systems to provide more than that for which they were designed.

Senator CRAPO. I have also noticed that in the time that has passed between the previous study and this one there is an increasing percentage of rural communities or costs in the rural and small system arena. Can you give any idea as to why it is we see a larger proportion of the need growing in these smaller service areas?

Ms. WHITMAN. Well, a lot of that goes back to the self-same needs: That they are aging infrastructures, there are new requirements being put on them, and there are in some instances growth which is putting additional demand on those systems. You have a much smaller base over which to spread the cost. That means that

the individual impact, the incremental impact becomes much greater on the ratepayers in those systems.

Senator CRAPO. Thank you. I notice that my red light has come on. So I will quit asking questions.

Senator Corzine, we indicated we would let Senators make their opening statements as they arrive. Would you prefer to make yours now or wait until we have finished with the questioning?

Senator CORZINE. Why don't we wait. Frankly, I will be happy just to submit my statement so we can go on with the witnesses.

Senator CRAPO. We will be glad, as soon as we finish the questions, to let you make or submit your opening statement.

In order of arrival, we will turn next then to Senator Bond.

Senator BOND. Thank you very much, Mr. Chairman.

Administrator Whitman, I am interested in determining the overall level at which the Clean Water State Revolving Fund is operating today, and what you see as an operating level that we need to reach for a sustainable revolving fund. Now I very much appreciate the information that the official recommendation is $1.3 billion for the clean water revolving fund. You have reversed the unfortunate pattern of past submissions where we have seen those slashed.

But I would like to know, with what we are putting in, what is being repaid, what the States are putting in with their 20 percent match, what is the annual operating level now, and also with the $1.3 billion to be added?

Ms. WHITMAN. Well, right now, we are seeing, as I indicated in the testimony, that we are getting a good return on the dollar through the revolving loan system and that the States have been stepping up and providing their portion of that in order to maximize the amount of money that is actually going into infrastructure repair. As you know, that revolving loan system, $2 billion is where we think we can have an ongoing significant impact. We believe that the budget submissions that we will see, and understanding that it is not finalized in all its details, will allow us to reach that.

Senator BOND. We are going to hold you to that even though it is not finalized. We are going to assume that is the budget recommendation.

Ms. WHITMAN. Right. That will allow us to go forward.

Senator BOND. Now is that $2 billion, are you saying that you need—are we operating at $2 billion with the payback?

Ms. WHITMAN. The submission is for $1.3 billion in wastewater grants. Then we will do the revolving loan. But the revolving loan fund, because you get more money back, will stabilize at about $2 billion.

Senator BOND. Do you think $2 billion is adequate for the needs?

Ms. WHITMAN. Certainly, everything that we have identified to date that is currently acceptable to be considered. Now, obviously, this committee, as you go forward with your hearings, will perhaps identify other and greater needs. But we believe that $2 billion will provide the kind of support for States and localities that will enable them to start to address these needs in significant ways.

Senator BOND. So, with $1.3 billion going in, you are saying that the State match plus the repaid funds coming back in to be loaned out again is only roughly $700 million? So we are getting $1.3 bil-

lion in the direct appropriation to go into the funds, and then there is about another $700 million coming back in to the system through State match and revolving——

Ms. WHITMAN. As the funds get paid off, and what you have is you get into a position where you are funding that at about $2 billion.

Senator BOND. What is the operating level for the safe drinking water fund now?

Ms. WHITMAN. The operating goal is $500 million.

Senator BOND. OK. That is the sustainable level you are seeking?

Ms. WHITMAN. Yes.

Senator BOND. What thoughts are you giving at EPA to additional financing mechanisms to assist in meeting these capital improvement needs for both wastewater and safe drinking water?

Ms. WHITMAN. I am asking that we look at all, particularly as it focuses on the smaller water systems where you have the most difficulty in compliance and meeting infrastructure needs and repairs, that we ensure that we look at the whole basket of what we are providing; that is this enough? I cannot tell you today whether it is or it is not, whether we have all the tools that we need in order to be able to support this kind of drinking response and repair, particularly, as I said, as it relates to the smaller companies where you have a greater difficulty in achieving standards and finding the funding to do the repair and getting the kind of financing that is required.

Senator BOND. I realize that you do not have the final answer, because that would take all the fun out of these hearings if we had the solution. But we appreciate working with you.

A quick question about the small rural communities. In Missouri and across the country they are having difficulty with financing and meeting the regulatory mandates. Any thoughts on how EPA can do a better job of assisting these small communities or expanding the role for rural water technical assistance?

Ms. WHITMAN. Again, that is part of what we are looking at. It all falls into the review I have asked, actually, because of the arsenic decision. I want to make sure that we have a full tool chest to provide small and mid-size utility companies, water systems with everything they need in order to be able to implement the standards that we think are the safe ones that people need to have in their drinking water.

Senator BOND. Thank you, Madam Administrator.

Senator CRAPO. Thank you.

Senator Voinovich.

Senator VOINOVICH. Thank you.

Administrator, do you know exactly what the number is, I was not sure I caught this, for the SRF fund that is going to be recommended, State Revolving Loan Fund?

Ms. WHITMAN. We are still finalizing that. That will be part of the submission made on the 9th of April.

Senator VOINOVICH. Are you looking at the authorization we put in the Wet Weather Program for grants, that $3 billion program over a 2-year period?

Ms. WHITMAN. With what we are looking at at this point is out of the $1.3 billion, that part of that goes to the wet water as a way

to prioritize. What we are trying to do, again, is to achieve the $2 billion level which is consistent with historic levels of assistance provided. What we need to do is prioritize and ensure that that money goes where it needs to go. But those numbers have not been finalized yet.

Senator VOINOVICH. I would like to suggest that that is totally inadequate. I will never forget when I went to the legislature in 1967 my first act was to put a resolution on the ballot for a $375 million bond issue to take care of waste treatment in our State where we were doing just primary treatment and we wanted to move it to tertiary. Then the Federal Government got involved, and a lot of people have forgotten about this, but we would not have the waste treatment facilities we have in this country today if it was not for the 75–25 program that went in during the late 1970's. We had that until 1985, then went off it and went to the State Revolving Loan Fund. A little more than 30 years later, we have a real problem.

There is an organization called WIN that recently met and talked about spending $57 billion over a 5-year period to deal with the clean water and wastewater problems that we have in our Nation. I think that one of the greatest things that the Bush administration could do, and you could do as Administrator, would be to sit down with these various organizations and really look at what the costs are out there today in this country and put a realistic number on those costs, rather than having them in the drawer as what we experienced during the last 8 years around here. It is time to confront the issue.

One of the things I did as mayor is we came up with a special program to buildup greater Cleveland, where I was told it is impossible. So we got everybody together and we identified clean water, waste water, transit, and so forth, and then put a program together and that is when we started to move forward. I would urge the Administration to sit down and really look at these costs.

Ms. WHITMAN. Senator, that is the focus of the gap analysis. As I indicated to you, that is a much more comprehensive analysis that is going on. While we are reviewing that internally, we will also put that out for peer review. So that we will be able to give you a comprehensive understanding of where we are in these needs and one that will allow you to compare apples to apples as we try to decide what is the appropriate balance and what is the appropriate level of support from the Federal Government.

Senator VOINOVICH. I think at the same time that you are doing that, you can get into like this arsenic issue. If it really is something that we should be doing, then how do we pay for it. If it is something that is really harmful to health and it needs to be done, then we have got to do it. On the other hand, if it is not, then we need to look at it in another way. But you are never going to get to the issue of some of these regulations until you put the cost on the table and start to balance them. Unfortunately, around here we have been doing that in a vacuum. We have not put everything on the table and started to weigh it. That is why I like risk assessment, and cost-benefit, and good science, and peer review, and alternative regulations.

I just want to switch to one other question. One issue that is a problem right now out there is the interaction between the current EPA mandates for CSOs, SSOs, stormwater management, and the TMDLs. In other words, you have got four programs out there. What are your views on giving the EPA the authority to combine these separate regulatory programs into a unified wet weather regulatory program that would enable municipalities to evaluate the sources of their wet weather water quality problems and rank them by environmental benefit, thereby allow the community to address the most severe environmental stressors first and getting the most bang for the dollar?

So you have got four programs out there, they are not coordinated. What would you think of possibly allowing the EPA to coordinate these and have more input from the local level on the best way of spending the dollars to get the biggest bang for their buck?

Ms. WHITMAN. Senator, I agree with you on the need for coordination. It is something I have asked the department to start to do, to step back and look at the broader picture—what are all the things that we are imposing on States and localities; how do they integrate with one another; are we layering things; can we get rid of some things. I had not thought about the approach particularly that you have outlined. I would be happy to talk with you further about it.

Senator VOINOVICH. Most of the national organizations think it is a great idea. I would suggest that maybe you also get some input from them on how it could be done.

Ms. WHITMAN. Certainly.

Senator VOINOVICH. Thank you.

Senator CRAPO. Thank you, Senator.

Senator Clinton.

Senator CLINTON. Thank you. I just want to associate myself with the comments of Senator Voinovich. I really think that these clean water and wastewater needs should be at the very top of our national priorities. It is not going to be cheap, and we know that it is going to expend a lot of Federal dollars matched by some State and local dollars. But I just do not think there is a more important priority. I also agree that if we find through science that there are changes that should be made, we should have the resources at the Federal level to be able to assist communities in meeting those changes.

I would urge the Administration, which has an opportunity now as we look at this new budget, to really take seriously in our time of surpluses, albeit probably diminishing surpluses, nevertheless surpluses, to take care of some of these national needs. I know that many people in a bipartisan way would certainly work with the Administration to do that.

I am sorry that I missed your opening statement. I apologize. I know that you mentioned arsenic. I just wanted to get some clarification, if I could. I have a couple of questions and maybe I will just ask those and then you could respond to all of them. Obviously, many of us are concerned about the decision that has been taken.

I would like to know:

First, in response to some of the statements that have come out of EPA, what is the new science that you will be looking at?

What is the process you see as you move forward to withdraw the standard?

As you know, there is a June 2001 statutory deadline for issuing the new standard. The deadline was established in a rider to a fiscal year 2001 appropriations bill, which was actually an extension of a January 2001 deadline set in the 1996 Safe Drinking Water Act Amendments. So these are issues that have been around for a number of years. Are you saying that EPA does not plan to meet this statutory deadline?

Fourth, under the Safe Drinking Water Act, EPA is required to set a maximum contaminant level that is as close to the maximum contaminant level goal as is feasible, where feasible means feasible with the use of the best technology available. Now it is my understanding, based on the science that I have reviewed and that led to the decision that was made by EPA, that the feasible science available could achieve a level of 3 parts per billion arsenic in drinking water. Yet the standard that was agreed on in a compromise, as all standards usually are, set a standard three times that level. Do you know of any other cases where the agency has set a standard above the level feasible using the best available technology and now is willing to jettison that standard?

Finally, it is my understanding also that EPA has a cancer risk policy in place under which the agency sets standards so that risks of cancer in humans do not exceed 1 in 10,000. In fact, it is my understanding that the agency usually strives for a risk rate of 1 in 1,000,000. Do you intend to revise the agency's cancer risk policy? Because there is significant evidence that the arsenic standard was keyed to a cancer risk standard that underlay the science.

If you could answer these questions. If there is additional information that you need, if you could submit those answers to the committee, I would appreciate it.

Ms. WHITMAN. Sure. No, I would be happy to answer them right off the top.

What is the new science? There have been a couple of new studies, one actually that indicates that arsenic might be an endocrine disrupter, something the previous Administration did not have when they made the decision. Which is why I have said I do not know what that standard will be. It may be 3, it may be 5, it may be 15. But we have not, as has been characterized by some, walked away from a reduced standard. There will be a reduced standard. But there is that.

What is the new process? One of the things I am asking is that we take that into account. We also are going to be reaching out to some outside; the National Academy of Sciences and then other groups that look at cost-benefit analysis, to ensure that the standard that we are setting—while the National Academy of Sciences and everyone agrees that 50 parts per billion is too high, as you indicate, there are those who think 3 parts per billion is right, 5, 10. There is, unfortunately, no definitive scientific study that says that 10 is the magic number, or 3, or 20, for that matter. That is the frustration we sometimes run into in the agency in setting these standards. But we are going to be undertaking a complete re-

view that will allow us to ensure that we have the new standards in place for implementation by the year 2006, which is when this particular standard was going to take effect.

You mentioned the June deadline. Obviously, we want to work with the Congress to see if we can, as you have granted in the past, provide an extension to allow us to do this more comprehensive review of impacts. We have no intention of changing the cancer risk assessment. That is not part of it.

My concern here, Senator, is that—you missed in the opening statement, but something that I encountered as I have talked to more and more people who are on the small water systems, and this is a real life example in Arizona, where the local water company was providing water at 90 parts per billion. When they were told that they had to meet the current standard of 50 parts per billion, they closed shop and walked away. That left the 30 people on that system with no way to get water save to drill their own wells, which they did, and they are now getting water at 90 parts per billion. We have no way to mitigate that. The unfortunate thing here as far as arsenic is concerned, there is no way to mitigate that at the tap or in the home; it has to be at the water supply system. My only concern is I want a thorough review of what we are able to provide those small systems to keep this from happening. What are we going to be able to do if 10 is the standard, if 5 is the standard, if 15 is the standard? Do we have everything we need? Financially, are we able to provide them with all the help? Are there other tools that we can give them? Do we have everything?

I just want a decision that really has looked at the entire picture. I was not satisfied as I talked with the staff that they had really been adequately able to incorporate all the interested parties in this and the full impact. While they looked at a cost analysis, that was amortized over the entire country. The heavy burden here will fall on those least able to afford it; many of these rural areas, low-income populations, people for whom an increase in their water bills is just going to be the straw that breaks their back and they are not going to be able to stay there. We want them to have safe drinking water. Because they live in a poor area does not mean that they should not have the same standard of drinking water that everybody else has.

I want to make sure that we have everything in place so that we can give them that support and that everybody understands what the full impact of this will be. But we are not talking about revisiting the cancer standard. We will look to ensure that we have the right number. As I said, I cannot tell you whether it is 3, 5, 10, or 15. It will be lower than 50. It will be in place by 2006.

Senator CLINTON. I would just urge in the strongest possible terms that we try to meet this June statutory deadline. Everything that you have just said does not suggest to me that should be a difficult task to achieve. I am continuingly concerned that, at the end of this process, whatever standard you choose based on the science will incur costs for people. I go back to what Senator Voinovich said. If we do not have money in this budget which will set the stage for expenditures for the next 5 to 10 years, we will not be able to fix the water systems that are going to need the help to keep the arsenic out of the drinking water.

Again, I am just so concerned that we are not going to have the resources available to take care of our water needs. Your setting this standard, whatever it might be, will incur expense for some communities. We better make sure we have got the money for it. I do not think it would be appropriate to do otherwise.

I do not want to see us end up as a Third World country in terms of our water. We have always prided ourselves on being able to turn on the tap and drink it. Some may want to go out and buy bottled water, which I have problems with because I think if they actually did an examination of what is in some of their bottled water they would go back to the tap water. But, nevertheless, we should be able to turn on the tap and drink the water anywhere in America. Right now, we are not sure we can do that. That is a problem that should be fixed, and it is going to take resources.

Ms. WHITMAN. Senator, I could not agree with you more. That is why this Administration's budget is $500 million more for this program than the previous Administration's budget.

Senator CRAPO. Thank you.

Senator Corzine.

OPENING STATEMENT OF HON. JON S. CORZINE, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator CORZINE. Governor, it is good to see you this morning. Let me say I am particularly encouraged that you have been very clear that you are talking about reducing these arsenic standards. I think there is a lot of misconception out and about with regard to what the actions and the statements surrounding it were, and we will be anxious to find that science.

I am curious if you felt that some of the work out of the National Research Center, the National Academy of Sciences has not been adequate? Is there a feeling that they have not reviewed this in a thorough enough fashion?

Ms. WHITMAN. No, Senator. The frustration comes that we all want to know what is really the right number, and there is no definitive scientific report that can say it is 10 versus 20 versus 5, that this is where you really make the difference in human health. The National Academy of Sciences has agreed with what everybody agrees with, that 50 parts per billion set more than 50 years ago is far too high. In our State of New Jersey, we have gone to 10 parts per billion. We assumed that and went to that. But, again, there was nothing that said that this was the number that provided automatic safety for everybody drinking the water.

We, fortunately, in New Jersey do not have a high incidence, and most of the East Coast, of naturally occurring arsenic. Naturally occurring arsenic is everywhere but you tend to see a greater impact in the West and the Midwest, many times in very rural areas, in towns that have one source of income, one particular facility there that provides it, and they do not have all the resources that they would be required. Again, when you amortize what the cost is going to be, it has a much greater impact on them.

So, I just want to make sure that as we reach this standard everyone has a full understanding of what the implications are for everyone.

Senator CORZINE. This gets at the point about budgets. We know we are going to need to support some of those communities. One thing we should know, that 90 parts per billion, which you talked about in the Arizona case, is off the charts.

Ms. WHITMAN. Oh, absolutely.

Senator CORZINE. It is going to lead more likely than not to something that is not even close to the cancer standards. So, as we say often around here, the perfect should not be the enemy of the good. But we ought to get this down to at least some level and moving in that direction almost immediately. As a matter of fact, it actually sounds more threatening when it is described in that kind of context, and then particularly when you know that a lot of these standards apply to school systems and what other ambient or transient systems are, that is the other term that is often used.

I suggest speed in dealing with this, getting to those conclusions, and getting them implemented. Even an interim standard, to cover some of these places where I think our people are at risk, seems in order.

I also want to identify, as Senator Clinton, Senator Voinovich, and others have talked about, the overall expenditures on wastewater infrastructure, which is a big problem in New Jersey, the CSO and other kinds of issues. Have you had a chance to scrub down in your own view these needs surveys that are the basis for a lot of the projections, the $135 billion, the $157 billion, and then I heard Senator Voinovich mention the WIN's proposal that might take as much as $1 trillion. Have you had a chance to work on these and factor this into budget processes. The $500 million sounds terrific but it does not sound too big inside a context of $1 trillion.

Ms. WHITMAN. No, and that is why the issue becomes so huge and that, while we all agree that this is something we must achieve in this country, the continued assurance that we are not even remotely close to Third World status in our water and do not want to be, have no intention of that, that we are comparing apples to apples. That is what the gap review is intended to do. That is why we are also going to put it out for peer review, so that everybody has an opportunity to look at these numbers, everybody has an opportunity to see what is being compared to what.

We have certain constraints in the agency that are legislated that, because of the way we distribute money under SRF, we can only consider certain things when we look at needs. We cannot authorize modeling. We do not use a model that projects out. That might be something that you can look at as you go forward. You hear such different numbers being considered. It is not that anybody is purposely underestimating; it is not that anyone is overlooking anything intentionally; there are certain constraints that allow what can be included in projections and what cannot be, depending on who is doing it. I am sure the committee will be looking at this issue.

Senator CORZINE. Would you comment on what you think the quality of the needs surveys projections are?

Ms. WHITMAN. There is a huge need here, there is no question. You are looking at infrastructures that are well over 100 years old in some cases. You are looking at infrastructures that have seen

huge increases in population and so they are now supplying water beyond their design capacity. You are seeing new requirements from the Federal Government as to what these water companies are allowed to purvey to their customers and that has put on increased demands.

So there is no denying that there is an incredible need here. We are talking about anywhere from $300 billion, that is a lot of money right there, much less $1 trillion. As you look at priorities, this is going to become a question of priorities as we address a lot of these challenges that we have before us. I would agree with you that this is certainly one of the primary challenges that we have to face.

Senator CORZINE. I certainly appreciate the benefits of cost-benefit analysis. But I think that as it relates to the health standards of our communities, I think safety comes first and making sure that we project this. I hope that that is factored into the analysis that goes here. I go back to 90 parts per billion or where in similar situations—in New Jersey, I think your own Department of Environment requested a 5 parts per billion on school districts. I think it is important to err on the side of conservatism and protection of our population.

Ms. WHITMAN. Senator, I agree with you. The only thing that I do not want to see is unintended consequences, such as that that occurred in Arizona where people were forced to go to their own wells. This is an issue that has to be dealt with through a water treatment plant; you cannot do it at the home. So now these people are getting 90 parts per billion, which we all say is unacceptable. This was an effort to get the company to meet the 50 parts per billion, which is the current standard, and we have had unintended consequences. We just need to fully understand all that.

Senator CRAPO. Thank you.

Senator Chafee.

OPENING STATEMENT OF HON. LINCOLN CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you, Mr. Chairman, for having this hearing on water and wastewater infrastructure needs. I think it is appropriate a week before we debate the budget to have this hearing. I certainly have been vocal in our caucuses on the opportunity we have with surpluses we have not seen for so many years to do something with our infrastructure. Being that the Water Infrastructure Network has worked with regulators, researchers, environmentalists, wastewater and water providers to have a study completed in 2000 that highlight the needs up to $1 trillion over 20 years, I just think we have the opportunity and should, as we go into the budget debate next week, address some of these needs either through revolving loan funds, low interest, or, ideally, no interest loans to the States to address this what Senator Phil Graham calls nonrecurring expenses. I think that is something we should be doing with our surpluses.

Thank you, Governor, for being here.

Senator CRAPO. Thank you very much.

Administrator Whitman, we appreciate your being with us. As I think is evidenced from the comments that you have heard from

both sides of the aisle here today, there is going to be a very strong focus on this committee with regard to the budget needs of this particular part of our environmental effort. We appreciate your effort in working with us in that regard. Thank you.

Ms. WHITMAN. Thank you, Senator. I look forward to it.

Senator CRAPO. Before we move to the next panel, it is my understanding that Senator Clinton wanted to read part of Senator Reid's statement welcoming the Nevada representative. I am right about that?

Senator CLINTON. Yes. Thank you, Mr. Chairman.

Senator CRAPO. You are welcome.

Senator CLINTON. I have never been a Ranking Member before, so this is all new.

On behalf of Senator Reid, I want to extend his apologies for not being able to attend this morning's hearing. Unfortunately, his duties as the Assistant Minority Leader require that he be on the Senate floor at this time. However, he would like to thank all of today's witnesses for their service to the committee. He is keenly aware of the tremendous challenges that communities in his home State of Nevada and all across the Nation face in meeting their drinking water and wastewater infrastructure needs. He appreciates the opportunity to learn from each one of the witnesses their perspective on the magnitude of these needs. I will be going with Senator Reid during the Easter recess to Nevada to see firsthand some of the needs that Senator Reid is so concerned about.

He would especially like to thank Mr. Allen Biaggi for taking the time to travel all the way from Carson City, NV, to participate in today's hearing. That is a considerable expense and effort to go all this way. It is difficult for anyone, but Mr. Biaggi is here with an achilles tendon injury on top of everything else. So we are especially grateful.

Senator Reid would like to commend Mr. Biaggi and his division for the work they do to support the drinking water and wastewater treatment needs of Nevada's communities as well as to protect Nevada's environment.

Finally, the Senator assures Mr. Biaggi that his travels today will be worth the effort. Senator Reid intends to read with special attention Mr. Biaggi's testimony on the water and wastewater infrastructure needs of the Nevada and Southwest regions. So we thank you and Senator Reid especially thanks you for making the effort to be here.

Senator CRAPO. Thank you very much, Senator Clinton.

As I indicated earlier, this is a very busy morning. I am sure Senator Reid would be here if he could; he has got a lot of duties. There are many Senators who will be very carefully reading this record even though they are not here.

We will now call up our second panel. This panel consists of representatives of four different States who will represent not only their own States but regional interests and other concerns of States in general.

First, we have Mr. Jon Sandoval, who is the chief of staff of the Idaho Department of Environmental Quality; Mr. David Struhs, secretary of the Florida Department of Environmental Protection; Mr. Harry Stewart, who is the director of the Water Division of the

New Hampshire Department of Environmental Services; and, as has been indicated, Mr. Allen Biaggi, the administrator of Nevada's Department of Conservation and Natural Resources in the Division of Environmental Protection.

Gentlemen, we welcome all of you here. I would like to remind you of the instructions I gave earlier that you try to keep your comments to 5 minutes. I will give you the light tap of the gavel if you do not notice the red light when it comes on. That is because we want to have the opportunity to have dialog with you.

We will begin then with you, Mr. Sandoval.

STATEMENT OF JON SANDOVAL, CHIEF OF STAFF, IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY, BOISE, ID

Mr. SANDOVAL. Thank you, Mr. Chairman, members of the committee. My name is Jon Sandoval. I am chief of staff at the Idaho Department of Environmental Quality in Boise, ID. I bring greetings to you, Mr. Chairman, from Governor Kempthorne and Director Steve Allred.

Senator CRAPO. Thank you.

Mr. SANDOVAL. I am testifying to share with you the perspectives of Idaho and other largely rural Western States who, along with their small communities, face unique and often overlooked challenges in meeting water and wastewater needs. On behalf of the State of Idaho, I very much appreciate your invitation to share my comments with you today.

Enhancements over the years to the Safe Drinking Water Act and the Clean Water Act have significantly enabled States to address major improvements in how infrastructure needs of small rural communities are served. States have been very successful in their efforts to work with small communities to better define current and projected infrastructure needs in rural areas. It is small communities who are most impacted by lack of capacity and financial stress in assuring that citizens are provided safe drinking water and wastewater treatment at an affordable cost.

Small communities face a unique situation as they must weigh the costs of necessary capital investments to meet national environmental and public health goals. Small communities in Idaho, and in all Western States, face a number of common issues: How much is available to spend, and are the revenues adequate; how do they document the need for financial assistance; can the debt service be properly managed; how do they obtain the necessary engineering, financial, and technical expertise at an affordable cost; how do they find and obtain affordable public financing; how much of the cost will consumers have to bear?

In Idaho, the mechanics of documenting need is a major challenge on our small communities. These communities face a number of obstacles when it comes to defining need as trends have continued to suggest, first of all: Federal requirements are increasingly becoming more stringent to improve water quality and drinking water safety?

Increasing costs of attaining these requirements will continue to escalate as there is a more directed focus to use technologies that are more complex and more expensive. We also need to recognize that energy costs have tripled, especially in the Pacific Northwest.

We also need to acknowledge the rising costs of capital improvements to replace aging or failing water distribution systems and wastewater collection systems for many of these communities is an extreme hardship.

Small communities are at a distinct disadvantage with Federal requirements for environmental compliance as these entities lack necessary financial resources, capacity, structure, access to technology, and the right tools in their communities to make informed and rational decisions.

The realities we need to address when it comes to understanding and responding to the infrastructure needs of small communities is that small towns and rural areas dominate our Nation. Approximately 90 million people live within jurisdictions serving less than 10,000 residents. Approximately 75 million people live in small, rural communities of less than 2,500. One-third of all local governments do not have any employees.

In Idaho, there are 36 rural counties, with 88 percent of Idaho's land area, and 36 percent of Idaho's population. Idaho is the seventh most rural State in the country. In Idaho, we define "small community" as a community serving 1,000 people or less. I would encourage the Environmental Protection Agency to consider using this definition because it has been our experience that these are the communities where the greatest hardship exists. These are the communities where there is a need for infrastructure improvement and where we do not see enough Federal response to address the financial stress on these rural communities.

Changing demographics, high unemployment, declining tax base, and increased costs of doing business are unique realities of small communities in rural areas. To not acknowledge these realities is a great mistake. If there is no regulatory relief and no flexibility to find innovative mechanisms to finance small community infrastructure needs, we will witness regulatory and financial flight by small communities. The burden is large.

Fiscal concerns at all levels of government, and particularly for small, rural communities, have dramatically elevated the issues of Federal environmental protection program costs and flexibility. Environmental laws depend extensively on State and local implementation, which raise questions of where the financial burden should lie.

There is a tension between desired environmental goals at the national level and the need to finance infrastructure enhancements at the local level. Issues in this debate include greater use of market incentives, cost effectiveness and flexibility in regulation, and more critical attention to who should pay for environmental protection is the unfunded mandates issue.

We have read the WIN report. Idaho agrees that we need to work with EPA and local government to find out how we can address the gaps in funding. But we also need to address the gaps in need. Is it $1 trillion? I do not know. Is it $300 billion? I do not know. Somewhere in the middle? I think taking in a State perspective, we will get a much better handle on what the infrastructure needs of Idaho communities are.

With that, Mr. Chairman, time is up. But I need to point out, Mr. Chairman, that Idaho water is better than New York water.

Senator CRAPO. Sorry Senator Clinton is not here to engage in that debate. We will have to have a water taste test I think.

Mr. Struhs.

STATEMENT OF DAVID STRUHS, SECRETARY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, TALLAHASSEE, FL

Mr. STRUHS. Thank you, Mr. Chairman, members of the committee, I appreciate being invited here today. I think you deserve a lot of credit for reaching out to the States as you formulate the Federal Government's role.

Florida, like every other jurisdiction, is eager to ensure that if new Federal resources become available in the future we get our fair share and a little bit more. But I would also pause and reflect that at this early stage of our discussions, we are eager to reflect on the larger question of what exactly is the appropriate role of the Government in building water infrastructure.

Florida, at this moment in history, provides an important object lesson for the Nation. We are in the worst drought in our State's history. We are in a 100 and 200 years drought that is drying up rivers, pushing family-owned businesses to bankruptcy, burning 100,000 acres, and mobilizing an unprecedented strategy to secure emergency water supplies. If there was ever a political imperative to expand Government investment in new water supply infrastructure, this is clearly it. Yet wise men and women are counselling caution.

Ironically, at the very same moment, with the tremendous leadership of the Congress, and particularly this committee and its chairman, we have launched the restoration of America's Everglades: an environmentally sustainable water resource plan that will help save 60 endangered species and will quench the thirst of 12 million Americans who are expected to call South Florida home.

The lesson to be drawn from these experiences is plain—Government must take the long view, not the short, or risk the fate of unintended consequences. In the area of water, this means understanding the difference between water resources and water supply.

It is entirely appropriate and necessary for Government to continue to identify, secure, protect, and conserve the public's water resources. They are a classic example of the public commons deserving governmental stewardship. We need to take care of our water resources whether they be aquifers, rivers, or lakes because, among other reasons, they are in fact current and future public water supplies. The Everglades is an example of this on a grand scale. There are many reasons to restore the Everglades. The fact that the project will provide a long term, sustainable future water supply is among them. But the Federal Government is not, as part of that plan, paying for the pumps and the pipes that will provide new water supply service that is made available as a result of Everglades restoration.

As we move from the stewardship of the public's common water resources and toward the specific development of water supplies for particular individuals, Government's role I think becomes less clear and eventually becomes counterproductive. Witness Florida's drought.

Drought drives home the value of a robust water supply infrastructure. So, too, does it drive home the value of accurate price signals that lead to adjustments in demand. It is difficult I think to find any drought situation that has not been made worse by a failure on both counts.

The danger is this: If Government uses revenues from general taxing authority to subsidize the expansion of a more robust water supply infrastructure, it risks making the next drought even more profound because price signals are further distorted while consumption has grown. This is entirely unfortunate, because as critical as water is to life, demand for water is demonstrable inelastic. There are a multitude of cost-effective opportunities for increased efficiency and substitution.

Government needs to be a good steward of the public's water commons. Everyone benefits from and everyone should share in the cost of this stewardship. Protecting watersheds for water supplies is an appropriate use of generally collected tax revenues.

However, the investments that are necessary to collect, store, treat, and distribute a water supply are probably in the long run best made by the actual water users, and how much they pay should be determined, at least in part, on how much they use.

Sound public policy would lower taxes collected for subsidizing water supply development and rationalize utility bills to more accurately reflect the cost of water service. I, for one, do not know anyone who, if given a choice, would rather pay a tax than a fee that he or she could control by adjusting his or her own behavior. This is also obviously the environmentally preferable choice, because in the end environmentalism is about the efficient use of natural resources.

An interesting footnote, as we prepared for today's hearing, we attempted to research water bills to determine, on average, how much of the actual water supply service is reflected in the bill and how much is actually paid through taxes. The fact that we found nearly impossible to answer that question I think makes the case for improving transparency to our water consumers.

If you accept the basic premise of this analysis, there are a few simple steps that would help ensure that any new Federal commitments to water will move us to this more pro-environment and pro-market vision that many of us share.

First, focus on protecting and restoring basic water resources, not on supply system infrastructure.

Second, if there is a decision to apply some resources to subsidize infrastructure, the money should be loaned and not granted. Loans are more likely to be made transparent to the water consumer.

Third, reward those entities that have conservation-based water rate schedules.

Fourth, reward entities that close the loop and recycle their water resources. The re-use of advance-treated domestic effluent for irrigation and other nonpotable uses must become a bigger part of our water future.

Fifth, recognize and support unconventional and new techniques for water resource management, whether they be aquifer storage recovery, engineered wetlands, et. cetera.

These are all steps aimed at creating a sound public water policy that are fair and transparent to the taxpayer and the water consumer and are good for the environment.

I genuinely appreciate the opportunity to appear before you today and look forward to your questions.

Senator CRAPO. Thank you very much, Mr. Struhs.

Before we move to our next witness, we have been joined by the Chairman of our full Committee, Senator Smith, who just happens to come from the State that our next witness comes from and may want to say something before you speak, Mr. Stewart.

I should indicate I failed to give Senator Corzine the opportunity to make his statement. But he has indicated he will submit his statement for the record, and we thank you, Senator.

Senator CRAPO. Senator Smith, would you like to say anything at this point?

OPENING STATEMENT OF HON. BOB SMITH,
U.S. SENATOR FROM THE STATE OF NEW HAMPSHIRE

Senator SMITH. Yes. Thank you, Mr. Chairman. I will submit my statement for the record. I want to thank you for holding these hearings. Certainly, water and water infrastructure are problems for every State, almost every locality in the United States. I apologize for being late. We had an Armed Services Committee meeting at the same time. As we do around here, we schedule two or three hearings on the different committees at the same time and we have not yet figured out a way to be in all places at the same time.

But I am proud to say in large part that New Hampshire has done an outstanding job in protecting waters of the State. One of the reasons for that is people like Harry Stewart, the director of the Water Division of the New Hampshire Department of Environmental Services. We are pleased to have you here today, Mr. Stewart, and I know you will provide perspective on the concerns that face not only New Hampshire but similar concerns of other States. So, welcome. Glad to have you here.

Mr. STEWART. Thank you.

Senator CRAPO. Thank you very much, Senator Smith.

Mr. Stewart, you may begin.

STATEMENT OF HARRY STEWART, DIRECTOR, WATER DIVISION, NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, CONCORD, NH

Mr. STEWART. Good morning, Mr. Chairman, members of the committee. I am Harry Stewart, director of the Water Division, Department of Environmental Services. As Senator Smith indicated, I am here to present the New Hampshire view on water and wastewater infrastructure.

Like the rest of the United States, New Hampshire has made great progress over the last 30 years in improving the quality of our surface water, groundwater, and drinking water supplies. These accomplishments would not have been possible without Federal and State assistance. In New Hampshire, that has been on the order of $0.9 billion in grants, and $0.3 billion in State and Federal loans to municipalities. Municipal share has been way beyond that over the years.

We have long recognized that municipal environmental infrastructure upgrades need to be given priority and considered in an integrated fashion to ensure environmental and public health protection in an affordable manner to our citizens.

In spite of what we have accomplished, New Hampshire still has major challenges that will require State and Federal funding well into the future to upgrade and improve our core infrastructure and improve water quality.

New Hampshire's characteristics I think generally would be described as rural in some areas, with some old urban areas which have some of the oldest water and sewer systems in the country, like Portsmouth, Manchester, and Nashua. We have aging infrastructure, more stringent permit limits for water quality and drinking water. Storm water combined sewer overflows are a very significant issue in New Hampshire and New England. These all need to be addressed in the next 10 to 20 years.

Our estimated needs in the drinking water arena are on the order of $500 million over this period based on the most recent needs survey. Wastewater needs are on the order of $1 billion for the same period. In New Hampshire, we are enabled to use the SRF for landfill closures also as a nonpoint source pollution. The $1 billion includes $300 million for landfill closures which will need to occur within the next 10 years.

When you factor out all the grants and loans that might be available, which are on the order of $50 million a year, the local share is $20 to $100 million a year if you spread the cost over 10 to 20 years in New Hampshire alone. Local funding is provided by either increasing user rates or through property taxes, or both in some cases. Thus, affordability becomes the dominant issue particularly for small rural communities and water supplies.

Many New Hampshire communities have significant problem with high water and sewer rates. In fact, 40 percent of municipal utilities in New Hampshire have combined water and sewer rates that exceed 2 percent of their median household incomes. Two percent is the commonly accepted threshold by State and Federal agencies in considering what is an excessive water and sewer rate.

To illustrate, consider Berlin, Ashland, and Jaffrey, New Hampshire, where the median household incomes range from $25,000 to $32,000 a year. Their annual water and sewer rates are in the $1,000 to $1,300 dollar range. That translates into 3 to 5 percent of median household income, which is very expensive for low-income households. So this is an affordability issue.

With regard to Jaffrey, in particular, as an example, they are under an administrative order to develop and implement a multi-million dollar wastewater treatment plant upgrade to meet stringent water quality standards. Berlin has drinking water infrastructure needs. These are going to increase rates further above that 3 to 5 percent of median household income level. We have a real need to augment existing funds with more ability to subsidize the State Revolving Loan Fund with discounts on loans and grants.

Thank you.

Senator CRAPO. Thank you very much, Mr. Stewart.

Mr. Biaggi.

STATEMENT OF ALLEN BIAGGI, ADMINISTRATOR, NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL PROTECTION, CARSON CITY, NV

Mr. BIAGGI. Good morning, Mr. Chairman, subcommittee members. My name is Allen Biaggi, and I am the Administrator of the Nevada Division of Environmental Protection. I would like to thank you for allowing me to appear before you this morning to discuss water and wastewater infrastructure needs of Nevada. I greatly appreciate your interest in bridging the gap that exists between needs and financial resources in our water programs.

At the outset, I would like to recognize Senator Reid and Senator Ensign for their leadership in addressing these serious public health and economic concerns and thank them for advancing this dialog on the national level.

As the fastest growing and one of the most urbanized States in the country, infrastructure development and maintenance are critical to the health and well-being of our citizens and our visitors. Obviously, the need is great in Nevada's major urban centers where the majority of our growth is occurring. Paradoxically however, the need is no less important in our rural communities where mining and agriculture are struggling and where funding is often not available for even the most basic wastewater collection and treatment systems or for providing adequate and safe supplies of drinking water.

Nevada has long supported its communities with State supported grant and loan programs for water and wastewater. Like all States, however, we have been asked to undertake significant new responsibilities under the Clean Water Act and Safe Drinking Water Act without the resources necessary to carry out those responsibilities. As a result, Federal assistance is vitally important and, frankly, the only way communities can achieve and maintain regulatory compliance to protect public health and maintain and improve environmental quality. Without increased funding at the Federal level, State drinking water and wastewater programs are facing crisis conditions.

Let me give you some examples within our small State.

On the clean water side of the equation, the State of Nevada has operated a construction grants program or a revolving loan program for over 20 years and has provided greatly needed financial assistance to rural and urban communities alike. For example, the rapidly growing communities of Henderson, Reno, and Sparks have taken advantage of programs and constructed some of the most sophisticated wastewater treatment systems in the country. This has allowed these communities to meet the requirements of the Clean Water Act and maintain and enhance water quality in the Colorado and in the Truckee Rivers. This provides high quality water for downstream users, for wildlife habitat, and the sustainability of endangered species. Similarly, small communities in Nevada, such as Silver Springs, have used these funds to meet waste collection and treatment needs and, for the first time, provide this basic service while protecting vital groundwater resources.

The problem is that demand for these funds greatly exceeds availability. For the year 2000, we had $152 million in proposed

projects submitted to the Clean Water SRF for funding; for 2001, $166 million, and we anticipate similar increases throughout the next decade. Compare this demand with the average available program funding of a mere $14 million.

In an attempt to overcome this gap, we work closely with other entities such as economic development agencies and the Departments of Agriculture's Rural Assistance Program to leverage available funds and meet community needs. Yet dramatic shortfalls still occur. This means that facilities must be funded using alternative sources, or, as most often occurs, projects simply do not happen.

What does this mean for a community? Sometimes it means that collection lines cannot be built to serve a residential development historically on septic tanks where groundwater contamination is occurring. Perhaps new treatment units cannot be constructed at wastewater treatment plants resulting in environmental impairment and the potential for fines and litigation. In some communities, it means they cannot meet the needs of growth and must initiate moratoriums or limits on residential and industrial development.

On the drinking water side of the equation, the prospects are not any brighter. In Nevada, as in the rest of the country, there is a need to refurbish and, in many cases, replace the pipes, lines, and treatment facilities that supply our drinking water. Systems age and without the proper care and maintenance reliability is reduced, costs increase, and, in extreme cases, public health impacted.

The year 2000 priority list for Nevada through the Drinking Water Revolving Loan program showed that over three quarters of a million dollars was needed to address acute health concerns associated with community water systems. An additional $35.8 million is needed to address chronic concerns, and $94.8 million for system rehabilitation.

Add to this the ever-increasing demands of the regulatory environment. In the next few years we can expect new Federal rules dealing with groundwater disinfection, enhanced surface water treatment, and modified contaminant monitoring and screening. All these have good intentions with the goal of public health in mind, but they are costly to implement and to maintain. Nationally, it has been estimated that for the drinking water programs alone an $83 million gap exists for States to implement the program and billions per year for system upgrades and repairs.

In closing, we in Nevada intend to do our part to continue to fund programs, provide grants and loans to our communities both large and small, and to advocate for increased support for water and wastewater infrastructure. We will continue to participate in the dialog along with our fellow State representatives and through national associations such as the Environmental Council of the States, Association of State Water Pollution Control Administrators, and Association of State Drinking Water Administrators.

The challenges are great, the resources, however, are limited, and the stakes of public health and environmental quality high. I ask for your careful consideration in making water and drinking water infrastructure funding a national priority. Thank you.

Senator CRAPO. Thank you very much, Mr. Biaggi.

I think I will begin and limit my questions to you, Mr. Sandoval. We have quite a few Senators here who have questions and we may run short on time.

The first question I have is, from what I have seen, approximately 15 percent of the infrastructure projects that are submitted by the States and utilities are rejected by the EPA in both the drinking and the wastewater arena. Do we have a similar experience in Idaho? If so, could you comment on what causes this discrepancy.

Mr. SANDOVAL. Mr. Chairman, as I talked a little earlier in my testimony, I talked about a gap in the needs as well as a gap in funding. I think when we are talking about dealing with the Environmental Protection Agency we are also talking about a gap in definition. We in Idaho certainly have experienced that shortfall, that 15 percent window in terms of rejected applications.

As we look at what the definition of what "small community" is at EPA, EPA defines it as communities of 2,500 or less. In Idaho, we use a small community definition of 1,000 or less. We have identified this and we have found that these communities are impacted severely by a lack of financial capacity, lack of staff, and a lack of ability to arrange public financing. We really find that our experience in working with EPA to try to bridge the gap between the definitional issues versus what needs to happen on the ground in order to achieve an environmental result is something that we need to come to the table with in terms of how do we find a realistic solution to addressing this issue.

Senator CRAPO. It seems to me that, when we talked earlier with the Administrator about making sure we compare apples to apples, that the definitional gap that you just talked about is something that we need to evaluate in terms of getting a handle on what the overall need in the country is. Would you agree with that?

Mr. SANDOVAL. I certainly would agree with that very much.

Senator CRAPO. All right. Thank you very much.

I am going to limit my questions at this point in the interest of time. We will turn next to Senator Voinovich.

Senator VOINOVICH. What I am hearing is that we need more money to deal with the infrastructure problems that we have in our respective communities. I have not heard very much comment from any of you on whether or not you think that the new water quality standards and other things that are being required from you are sensible and make sense. I think that is an issue that I would like your opinion on. Are you being asked to do some things that you ought not to be asked to do?

Second, I was very much involved as Governor and active in the National Governors Association in promoting the amendments to the Safe Drinking Water Act which we hoped would help alleviate some of the problems that smaller communities particularly were having in the country. I would like to know whether it is your impression that those changes that we made in the Safe Drinking Water Act have been helpful to you.

Mr. SANDOVAL. Mr. Chairman, Senator, I guess I would like to respond by saying that in looking at the number of regulatory changes coming down in terms of the Clean Water Act or Safe Drinking Water Act, and looking at 5 years out, the notable

changes are going to have a significant financial impact on small communities and on the capacity of State government to deliver service.

I think if anything could happen in terms of how do we address the gap, we need to look at finding better ways to service our communities and our States and work with EPA and Congress to look at creating a funding mechanism and a solution that drives down the ability of money to get where it needs to be. We are looking for an on-the-ground environmental result. We have to be able to identify how we pass that money on to local government.

In regards to the changes in the Safe Drinking Water Act, I would have to say since Senator Kempthorne, now Governor Kempthorne, was one of the authors of revising the Safe Drinking Water Act, and we did have a lot of participation in Idaho in that legislation, we do think it is a good piece of legislation and it does create some opportunities for some innovation while at the same time responding to a number of challenges to drinking water systems all across Idaho.

In Idaho, 97 percent of our drinking water systems are in compliance. We have good quality water. But when we start to look at what the impacts are going to be in terms of new changes in regulations and new standards, we are not so sure that the science is there in order to support the costs of those regulatory changes.

Mr. STEWART. I will address the Clean Water Act element. The trend is toward increasing standards not just for the organics and the nutrients, but also for heavy metals. For our poorer communities, it is hard to sell to impose a heavy metal standard for water quality in a headwater area with low flow that are more stringent than the drinking water standard at the other end of the pipe. So that is a bit of a problem.

I think what is happening, at least in New Hampshire, is that these headwater communities, like Jaffrey that I mentioned, are getting hammered by costs for water supply, for wastewater, and landfill closures all at once. So it is a very difficult situation and it is very difficult to sell more stringent standards in those kinds of situations.

Mr. BIAGGI. Mr. Chairman, Senator, I would like to address the nonpoint source issue because I think it is critical and it is where we need to head for the next few years with regard to water pollution control and get that remaining incremental contamination. The problem is, however, like everything else, it is going to be extremely expensive. Those dollars need to funnel down from the Environmental Protection Agency through Congress to the States in order to help implement those very expensive programs over the next 10, 15, and 20 years.

Senator VOINOVICH. You think those programs make sense?

Mr. BIAGGI. I think that the policy and the direction make sense. We have had some concerns about specific provisions, but I think it is a direction that we need to go in for the future, yes.

Senator VOINOVICH. You are specifically concerned that you are being forced to take care of cleaning up some things as a result of nonpoint sources, and that you think there should be something done about that to not have the burden fall totally on your systems?

Mr. BIAGGI. That is correct. Quite frankly, we do not have the resources to implement the full range and complement of nonpoint source issues. There is going to need to be some assistance at the Federal level to the States to help push that agenda forward.

Senator CRAPO. Thank you.

Senator Corzine.

Mr. STRUHS. Mr. Chairman, I dare not be the only panelist to not respond to Senator Voinovich.

Senator CRAPO. Please take a brief moment and do so.

Mr. STRUHS. You had earlier in your comments, Senator, talked about the value of regulatory relief. In many cases, we are hesitant to talk about regulatory relief because it sounds like we are trying to get away with something. Indeed, I think the better term in some instances is regulatory rationalization. It is rationalizing the regulations, not getting relief from them.

A specific point in Florida, which I think you are familiar with, is aquifer storage recovery. There are currently on the books a set of rules that are one-size-fits-all, which means anytime you want to use aquifer storage recovery, which is the storage of water underground for later use, it has to meet drinking water standards because that was the assumption, that these technologies would always be used for that purpose. As you well know, as we move forward to restore America's Everglades, we are going to rely heavily on that ASR technology and yet we are not using it for drinking water. So, query: Why be required to treat that water to drinking water standards prior to injection to be stored only to be pumped out later and again cleaned at that standard? It is clearly something that does not make sense from a rational point of view.

Our Florida legislature right now is dealing with it at the State level, and we look forward to cooperation at the Federal level to make sure that our plan can go forward to do that kind of rationalization. The net effect would be to save about three-quarters of a billion dollars off the price tag of Everglades restoration, which is something that I think we can all support.

Senator REID. Mr. Chairman, if my friend Senator Corzine would withhold for just a brief minute. My beeper just went off and I have been called back to the floor. We are going to have a vote at 11:50.

Senator CRAPO. Certainly.

Senator REID. I just wanted, first of all, to extend my appreciation to Senator Clinton for welcoming my friend from Nevada. We appreciate very much the work you do and are very proud that you are back here representing the State at this part in the hearing.

Mr. BIAGGI. Thank you, Senator.

Senator CRAPO. Thank you very much, Senator Reid, and thank you for that information about the vote. We will all have to hurry I think.

Senator CORZINE. Mr. Stewart, I am glad to hear you talk about some of the age issues that are associated with some of these wastewater and water systems. In New Jersey, we have a very similar problem. We have a number of systems that still have wood-lined pipes which are certainly a problem along this line.

But I wanted to ask a question with regard to cancer standards. We are talking often about the amount of dollars that are involved.

But I am wondering, from any of your perspectives, whether you work with the EPA's standard and the NRC's view on what the maximum risk is. Is that a practical standard that you apply in your daily work as you work with your local communities? Because, ultimately, the benefit is hopefully to fall within those standards, and that is one of the reasons we have these costs. I just wonder whether that is being as much focused on as price signals or total overall cost of programs that are mind-boggling, $300 billion to $1 trillion. Can anyone comment on how you think about the cancer standards or the goals that we are trying to achieve with the various standards that EPA has established.

Mr. BIAGGI. I can take a quick shot at that, Senator. In the State of Nevada, obviously, and I think most States, we do not have the resources or the abilities to establish those maximum contaminant levels. We have to look to the science and the evaluations, to the Federal Environmental Protection Agency, to the National Science Foundation, and other agencies in order to establish those MCLs. In other programs, however, such as the remediation programs, we always strive to achieve the greatest health protection standards possible, and usually that is 1 in 1,000,000 cancer risk. So in those programs, that is what we always strive for.

Mr. STEWART. In New Hampshire, there are a number of contaminants, such as MTBE, where we have had to actually move out in front of EPA in terms of setting standards. We use a similar approach to EPA in terms of the risk associated with a particular contaminant.

With regard to arsenic, we actually have proposed a rule of 10 micrograms per liter. We did that in December, just ahead of EPA, and we are in our public hearing process. Obviously, we are going to weigh what EPA does in addition to what we get for public comment.

Senator CORZINE. That leads to an obvious question. Did you feel like you had science backing for that standard?

Mr. STEWART. We rely on our Department of Health and Human Services to assess the science, and they were comfortable with 10 as about the right level. I think the Administrator indicated that they are going to fall somewhere around between 5, 10, 20. What we were concerned about in New Hampshire in particular was getting the word out that 50 is too high, and we were concerned not just for public water supplies, but also for private water supplies. So we moved forward to announce a proposal.

Senator CRAPO. Thank you.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

Mr. Struhs, you said in your statement that you recommend, "If there is decision to apply some resources to subsidize supply system infrastructure, the money should be loaned, not granted. Loans are more likely to be made transparent to the water consumer." Could you just elaborate on that. I think there was some other testimony that the grants were working.

Mr. STRUHS. Grants are always popular. We run a loan program and a grant program in our department in the State of Florida. The line at the grant window is always longer than the one at the loan window.

Senator CHAFEE. That is why I am asking.

Mr. STRUHS. But if you believe that people make more rational decisions when they recognize the cost of the money, you will find priorities shake out and the truly important things will move to the front of the line.

I think there is clearly a role for grants, particularly is you are talking about subsidizing rates for purposes of affordability. There will always be those who are unable to pay the full freight. I think a subsidization for purposes of affordability is one thing, and it is an appropriate thing. But subsidizing rates to the point where the true cost of water is camouflaged, you price signals become distorted. What you are actually doing is taking control away from the consumer.

The question is not whether we are going to pay the bill for this new infrastructure, indeed, it is not even about who pays because it is all of us who are going to pay it. The question I think is how we are going to pay. I think there is a preference amongst many conservative environmental thinkers that to the extent you can rationalize the price of the water service, you will see better decisions made in terms of efficiency and conservation.

So I think it is a happy coincidence in which conservative market principles can actually be brought to bear to provide a positive environmental good and, at the same time, to use a term that is not popular, show some compassionate conservatism in terms of subsidization for those who cannot afford it.

Senator CHAFEE. Thank you. Anybody else from the panel wish to comment on that? I know we are pressed for time, so quickly on grants versus loans.

Mr. Stewart.

Mr. STEWART. I think that one thing that is happening, certainly in New Hampshire, is that, again, the headwater communities, the small, rural, low-income, headwater communities are getting hammered with very, very stringent NPDES permit requirements, for example, so that the burden of environmental protection in the global sense, is really being skewed to those communities if we do not have some reasonable level of subsidy to address the affordability issue.

Senator CRAPO. Thank you.

Senator Smith.

Senator SMITH. Picking right up on that point, and others may wish to respond to it in terms of the smaller communities along the headwaters, if you will, if you look in the Merrimack River in New Hampshire, looking at it in a holistic way, we have lined up a number of communities along that river to assess the CSO problem, and you can pick any river in any of your States, and when you look at the dollars that are required by EPA to focus on 3 or 4 percent of the river's problem as opposed to where you might put those dollars somewhere else, fixing sewage pipes or whatever, are we better off to give you more flexibility in that area, No. 1. No. 2, what about regional partnerships as opposed to focusing on one community at a time to clean up not only the water, but the communities themselves? Anybody want to comment?

I will start with you, Mr. Stewart, and then move on.

Mr. STEWART. Yes. The idea of cost-benefit and the marginal cost of getting a smaller amount of pollutant versus going somewhere else and getting a greater bang for the buck obviously makes sense. We try to do that, to the degree that we can, with our priority list in New Hampshire. But more flexibility would be useful there.

Mr. STRUHS. Senator, I would add that the exercise that all the States are now embarking on in terms of establishing total maximum daily loads and then making the hard choices in terms of how you would then allocate those loads amongst the various watershed users can, if done correctly, reveal where those more efficient investments can actually occur, rather than looking at it on sort of a permit-by-permit basis. So I think, again, if you approach the TMDL with the right frame of mind, it can identify those efficiencies. Our hope would be that our Federal Government would provide us the flexibility to then act on those opportunities.

Senator SMITH. Anybody else want to comment?

Mr. SANDOVAL. I guess I would echo that as well from Idaho. Flexibility is certainly I think the order of the day. I think there has to come a time when we make sense out of the nonsense. I think States have to have some flexibility and some decision-making to really decide where their resources need to go. The State of Florida picked out a really good example in terms of TMDLs and how we address the nonpoint source pollution. I think if we really combined our resources, and really focused our attention on arriving at flexibility, I think we would achieve a more sustainable, long-term, on-the-ground result.

Mr. BIAGGI. Senator, I think you brought up a very good point of regionalization of looking at watersheds. In Nevada, we are in the unique situation that the majority of the heads of our watersheds are actually in the State of California, our neighbors to the West. We have started to develop those coalitions and those regional groups in order to address some of the water quality issues associated with the Carson River, the Truckee River, and the Walker River which have bi-State components to it and multiple counties.

Senator SMITH. Yet under current law, as you know, a small community below those headwaters that are in California along that river could be hammered with CSO standards where dollars would be forced to be spent on, say, a CSO problem that is much less important or significant than something else might be in that community. Is that, in essence, correct?

Mr. BIAGGI. That potential always exists, yes, sir.

Senator SMITH. I know the chairman has to move on with the next panel because of the upcoming vote. So I will stop there, Mr. Chairman.

Senator CRAPO. Thank you very much, Senator Smith.

We would like to thank and excuse this panel. We have a lot more questions but we have just been informed that we have a real time pressure here.

So thank you very much.

Senator CRAPO. We will now call up our third panel which consists of the Honorable Bruce Tobey, the mayor of Gloucester, MA, on behalf of the Water Infrastructure Network; Ms. Janice Beecher, Beecher Policy Research, Inc. of Indianapolis, IN, on behalf of the

H2O Coalition; and Mr. Paul Schwartz, the National Policy Coordinator of the Clean Water Action.

We would like to welcome each of our witnesses here. Again, I will remind you of the 5-minute requirement, which is even more important now since we are moving up toward a vote.

We will start with you, Mayor Tobey.

STATEMENT OF HON. BRUCE TOBEY, MAYOR, GLOUCESTER, MASSACHUSETTS, ON BEHALF OF THE WATER INFRASTRUCTURE NETWORK

Mayor TOBEY. Thank you, Mr. Chairman, members of the subcommittee. I am going to try to take off my individual mayor hat, which I know from past mayors on the panel may be a difficult thing to do, and speak first of all for the National League of Cities today, which represents 18,000 cities, towns, and villages from around this country, that range in member size from 8 million to 653. So we cover the gamut. So, too, does the second group I speak for, the WIN coalition, 29 organizations that have come together, that, in the final analysis, I believe they represent the interests of America across the board in water and wastewater infrastructure issues.

Speaking for those groups as well as for my own community, I seek your support today for a renewed Federal partnership in financing the capital needs of our wastewater and water infrastructure systems. There is a core fact here, Senators: the needs are large, they are unprecedented, and local sources just cannot handle them on their own.

Local government and regional entities around this country currently are annually spending on water and wastewater infrastructure $60 billion a year. We are doing it with local rates that we have steadily increased to keep pace with costs that are escalating at a rate in excess of 6 percent above inflation annually. Those local resources that we now are relying on can only cover over the course of the next 20 years about half of the $2 trillion that reasonable and sound research from a number of sources has shown we are gong to need to come up with to fund the needs of our water and wastewater systems.

Now, why is there this gap?

Let me suggest, if I may, four reasons. I will just briefly touch on each of them.

First, we are simultaneously seeing the expiration of the useful life of water infrastructure systems built over the course of history at different times. The sad fact is there were systems built 100 years ago and the good news then was they had a useful life of about 100 years given the materials used. Then there is another phase about 75 years ago. But guess what? Useful life, 75 years. On it goes. It is coming in, it is roosting today on our families, families like ours across this Nation.

Second, population growth. These systems were not built with the expectation of the kind of population growth we have seen and they are, if you will, bursting at the seams.

Third, we are witnessing the implementation of new, more costly, and much more complex Federal mandates which, in effect, are substituting Federal priorities for local priorities. If there is only so

much money in the kitty and we have to make a tough choice between maintaining what we currently have and thereby deferring very costly capital replacement and keeping the regulators from being at our door with fines and consent orders and all that, regrettably, we wind up dealing with regulatory standards all too often and not being able to do both, which is what we want to be able to do. Local government wants to do the right thing on these environmental issues.

Fourth, and that is why we are here, there has been a substantial decline in Federal financial participation in meeting wastewater mandates. I would just footnote Senator Voinovich and others for that proposition.

This is a situation already costing real people real money. Just a couple of examples. Helena, MT, a recent increase in rates, 61.43 percent. Baton Rouge, LA, a proposed increase from the nexus of $21 a month to in excess of $37 a month, a 76-percent increase to fuel a $450 million CSO project. Des Moines, IA, a proposed increase of basic monthly charges by 24.5 percent and a volume charge by 35.5 percent over 2 years to cover $28 million in improvements. My own city, I had the distinct privilege, as we expanded our sewer system to 800 families in a very difficult piece of terrain. to then have to send them their share of the bill for the construction of that system's expansion; $20,300 per home, and that is for construction. What they will pay for the use of that through rates hereafter is on top of that.

What we seek, very simply, is a 5-year, $57 billion authorization beginning in fiscal year 2003 for loans, grants, loan subsidies, and credit assistance to meet these basic water infrastructure needs. It is a further refund for the people who built the surplus that the Federal Government now enjoys. I would ask you to consider it in this context: The $2 trillion deficit soon to be paid off at 6 percent, that is $120 billion a year in interest. That is going to be gone. That is a good piece of news. We are seeking, spread over 5 years, about half of the interest saved in a single year.

We can reestablish the partnership of the Clean Water Act. We do not need that poster child of the burning Cayahoga River to move us on. That is in the past. Let's build on that success. We can maintain a sound infrastructure that is good for our economies, good for our people's public health, good for America.

America's infrastructure of transportation systems, of aviation systems have a steady guaranteed source of funding, our defense system, too. I would respectfully contend that our water and wastewater infrastructure systems are no less critical. They warrant the same degree of guarantee.

I am pleased to say that the League of Cities and the entire WIN network is here today to work with you in partnership to advance meeting that goal. Thank you, sir.

Senator CRAPO. Thank you very much, Mayor Tobey.

Dr. Beecher.

STATEMENT OF JANICE BEECHER, BEECHER POLICY RESEARCH, INC., INDIANAPOLIS, IN, ON BEHALF OF THE H2O COALITION

Ms. BEECHER. Thank you, Mr. Chairman, and members of the committee. I find it a real privilege to be here. My name is Jan Beecher and I am an independent research consultant. I specialize in the structure and regulation of the water business. My testimony here today is actually based on an independent analysis that I conducted and I was invited then to come here and present these findings to you.

Let me begin by emphasizing that my purpose is not to dispute the fact that the water and wastewater industries face substantial infrastructure needs, although I think we can have further dialog about what is driving those needs. My purpose is to promote further discussion, dialog about some of the assumptions behind the concept of a funding gap and some of the presumptions about how to best address it.

The $1 trillion number has become a real focal point for discussion. My concern is that it is imprecise, I think we all sort of agree about that, in that it actually may be inflated. We spent a lot of time increasing the number and I would like to see us spend some time on decreasing the number. Estimates to the need seem to give little weight to the potential for lowering total costs through restructuring, innovation, operational efficiency, markets, and integrated resource management.

The gap is basically a construct, not an inevitability. The projected shortfall will result if, and only if, the need estimate is accurate, and funding and expenditure levels are not increased. Thus, the gap will materialize only if we take no action to close it.

A number of interrelated myths have emerged in the context of this debate. First, that a national crisis is looming; second, that the cost of water services cannot be supported through rates; third, that a funding gap is inevitable; and fourth, that Federal funding solutions are essential or should be the centerpiece of the solution.

I believe it is appropriate to challenge some of these assumptions that are contributing to these beliefs. To this end, I will highlight a half a dozen basic reality checks, again for just further dialog.

First of all, local governmental expenditures in the aggregate for water and sewer services exceed revenues from water and sewer charges. This observation can be contrasted to municipal energy services which tend to generate a positive revenue stream. Such findings generally suggest that municipal water customers do not pay for the full cost of service through rates today.

Second, a related point is that some communities may deliberately, no matter how well-intentioned, try to maintain low prices for water and wastewater services. Persistent underpricing of water services is a contributing cause of the anticipated funding gap. Underpricing sends inappropriate signals to customers about the value of water, leading to inefficient usage. According to basic economic theory, underpricing leads to over-consumption as well as inefficient supply strategies to meet inflated demand.

Third, water services today are a relative bargain for many households, including mine. Water and other public services actually account for a relatively small share of the average household

utility budget, less than 0.8 percent of total expenditures. Again, these are aggregate numbers and I realize there are differences. But particularly in comparison to energy and telecommunications services, water is a bargain.

On average, a four-person household spends about the same each year on cable television and tobacco products as on water services. Total expenditures for other discretionary services, such as cellular phones, internet services, and other communication devices, are rising. In addition, water prices in the United States are comparatively much lower than prices charged for water services in other developed countries of this world.

Fourth, Americans are very concerned, as we have heard today, about the quality of their drinking water and the protection of our precious water resources. But consumers also seem to sometime show a greater willingness to buy bottled water than to support the cost of community water through rates. Conservatively, the average price of 1 gallon of community-supplied water, conveniently delivered to the tap, is about one-third of one penny. In general, every other water alternative is no more safe, much less convenient, and astronomically more expensive. At $1.15 a gallon, designer water costs 347 times the price of tap water. The bottled water industry is earning about $5 billion in revenues.

Local funding priorities may be similarly skewed. For example, the price tags for municipal stadiums often are in the range of the amounts needed for our water infrastructure.

Fifth, it is important for the water industries to have realistic expectations about future Federal funding for water programs in order to plan sufficiently to meet their obligation to fund infrastructure needs and maintain their systems. A massive grant subsidies seem neither likely, nor beneficial, from a societal standpoint. Subsidies will only continue to perpetuate inefficiency.

Finally, many systems can, and do, manage their assets effectively and charge the cost of water through rates. The transition to cost-based rates for services can trigger rate shock and raise legitimate affordability concerns for disadvantaged communities and disadvantaged households. There are financing rate-making and assistance methods to address those, and I believe the Safe Drinking Water Act provides an excellent framework for addressing some of those issues.

In sum, the concept of a funding gap merits further consideration and debate. The need to invest in our infrastructure is very real but the funding gap is a construct. The water industries need to take responsibility and provide leadership and action to address these issues. I believe that the essential tools for closing the gap involve finding increased efficiency as well as finding ways of charging the true cost of water. Subsidies should be used minimally, judiciously, and on a needs basis, and the goal should be sustainable systems, not sustainable subsidies. Thank you.

Senator CRAPO. Thank you, Dr. Beecher.

Mr. Schwartz.

STATEMENT OF PAUL SCHWARTZ, NATIONAL POLICY COORDINATOR, CLEAN WATER ACTION, WASHINGTON, DC

Mr. SCHWARTZ. Good afternoon, and thank you for your patience with all of us. I really appreciate your work, Chairman Crapo, and the other subcommittee members and full committee members, thank you. My name is Paul Schwartz, and it is my pleasure to be testifying before you today. The Clean Water Action has large membership organizations in three of the four States of the remaining Senators; from New Jersey, with the New Jersey Environmental Federation, in New Hampshire, and in Rhode Island. We look forward to working with you in sculpting some type of solution to the types of problems that we have heard today.

I think it is important, as some people have said, to remember that we have had three decades of Federal water investments and those three decades have made a big difference in improving the quality of both our rivers, lakes, and streams and our drinking water quality. But that difference can be transitory and can go away.

I think we can also all agree that the funding gap, whether it is a construct or a reality, as you add up the potential costs and the real costs, has the possibility of being very large. Whether we are talking about a construct or whether we are talking about real needs facing particular communities right now, there is a new need for a shot of Federal investment as the systems are growing old and their life is coming due.

There is no other infrastructure in the United States that is relying on pre-World War I technology as the basis for the technology that we use. There is no other infrastructure in the United States whose physical plant is as old as our water infrastructure. In many other infrastructures, we talk about trading on our grandparents' generation. For water infrastructure, we are talking about trading on our great grandparents' generation. We used to have an infrastructure that was the wonder of the world. Folks would come from all over the world to look at our systems. That is not the case any more.

Congress has heard and will continue to hear a steady and almost unremitting drumbeat of information about funding gaps and about the needed and available resources. At Clean Water Action, the specific overall dollar figure that we understand may vary somewhat depending on the specific frame, model, or method used to generate the numbers, but everybody agrees that without significant new investment we face some sobering environmental and public health and economic issues. We have taken a look at the various surveys, the WIN survey, the Drinking Water and Clean Water surveys from EPA, and we think that the order of magnitude of the problem approaches something like what is in the WIN survey.

The key question is how do we act in a way to maximize, to the extent possible, equity, affordability, and sustainability while maintaining the goals of preserving the environment, enhancing public health, and laying a new foundation for broad economic prosperity. Now how we dispose of that problem and your role in doing that is at the center of the debate. That is why we believe we are at the table.

We think there are some common sense, fiscally conservative, market-driven principles that should guide how we think about moving forward in these areas.

First, we believe that we should give the States flexibility to invest in "green" infrastructure as well as in the traditional infrastructure needs. The WIN report and others have supported this notion of looking at cost-effective pollution prevention, source control, and innovative and alternative technologies. The WIN report also talks about a $250 million science, technology, and best management fund, which we believe is key in figuring out how to maximize the dollars that we have available to us.

Second, we need to make sure that the dollars actually go for cleanup, not sprawl development or environmentally destructive projects. Currently, EPA has no way of tracking how the States are actually spending the money in the sense of knowing whether the dollars are going for real environmental compliance or public health needs, or whether that money is going to spur sprawl development. We would like to see that situation change. We would like to see some more fiscal restraint and some more capacity for transparency on the part of our States in the way they spend their dollars.

Additionally, ratepayer and taxpayer protections should be supported by conservative approaches in utilizing market-based incentives. There are five points that we would like to throw out and suggest that we consider as we move through this process: First, I——

Senator CRAPO. I would like to ask you to try to summarize quickly. We are running tight on time.

Mr. SCHWARTZ. Sure. I appreciate that. I will skip then to the back.

Let me address grants. Requiring a local match for any grant program is what we think is necessary to make sure that as we layer grants, if we do, on top of loan programs, we have some buy-in from the communities. Maybe that match could be keyed to some affordability index.

Second, we really want to protect taxpayers and ratepayers by assuring that costs are fairly apportioned between users of all water resources. That is why we suggest that there is a mechanism that already exists that could result in the raising of billions of dollars for water infrastructure needs in the sense that we have vastly under-utilized NPDES permits for discharges where there is either free or very low cost for those permits. We think this is a way that you could raise tremendous numbers of dollars. The Federal role there would be to recognize a preference to States who choose to use this type of funding mechanism.

Last, we think it is very important, as we have heard today, to fund safe and affordable water for small communities. We are very concerned that we have a two-tier drinking water system being set up in this country in a *de facto* way. Because of this, we support the type of moves that Congress made in the 1996 Safe Drinking Water Act that gave States the flexibility to use up to 30 percent of their funds to aid small systems in a variety of ways. A current early read shows that many of the States are not taking advantage of those funds. So we believe that Congress needs to move beyond

mere suggestion to really mandating more of that usage. We support the type of approaches such as the Reid-Ensign Small Communities Safe Drinking Water Infrastructure Funding Act that look at the special needs of small systems.

To conclude, we are very concerned that as we move forward in this process we not take advantage of the distress that we see in our communities as a way to reopen difficult and complex issues under the Clean Water Act and Safe Drinking Water Act reauthorizations. If we choose to use this setting and this scene to do that, that will be the quickest way to undercut the vast coalition of political forces who have come together here in this room to support solutions to pressing environmental and public health and economic problems in our communities. Thank you.

Senator CRAPO. Thank you very much, Mr. Schwartz.

We have about 5 minutes before the vote and four Senators. I will forego my questions and ask each of the Senators to try to be brief.

Senator Corzine.

Senator CORZINE. I will defer.

Senator CRAPO. Thank you, Senator.

Senator Chafee.

Senator CHAFEE. I will just ask Mayor Tobey how he is still in office after sending his constituents the bill for $20,000.

[Laughter.]

Mayor TOBEY. Otherwise delivering good government has its rewards.

Senator CRAPO. Congratulations.

Senator Smith, you get the remainder of the time.

Senator SMITH. Just a quick question. Dr. Beecher, one of the concerns you hear about is if the Federal Government tries to provide incentives for privatization the Federal Government will wind up with the worst systems and the privatization will move toward the better systems, if you will; we will get the inefficient and the private sector will pluck off the better systems. How do you avoid that?

Ms. BEECHER. I am not sure that that is a real significant issue. I think, certainly, if you are talking about investor ownership, there are protections there in the form of State public utility regulatory oversight.

I think that the goal might be to leverage money and use it accordingly to meet goals, to have it very goal-based and performance-based so that rewards follow performance. Use those incentives to have the private sector play a more central role and, clearly, tie incentives to performance and the ability to address the hardest problems. So I think it can be done. I think it just takes a lot of creative energy and program design.

Senator SMITH. Mr. Schwartz, where does water infrastructure stand in terms of priorities? Of all the environmental problems we have in America, where would you put it?

Mr. SCHWARTZ. Right at the top. I sit on the steering committees of both the Campaign for Safe and Affordable Drinking Water and the Clean Water Network, representing thousands of environmental organizations around the country. We believe, as "Deep Throat" put it so well in Watergate, follow the money. The dollars

are at the center of the politics and of the solutions, and that is where we need to address it if we are serious about maintaining clean water in this country.

Senator SMITH. Thank you, Mr. Chairman. Thank the witnesses.

Senator CRAPO. Thank you very much, Senator Smith.

I, too, would like to thank the witnesses. I apologize to you that we did not have the opportunity for the dialog we would ordinarily have liked to have had with the panel. It happens a lot. But I can assure you that we will carefully review your written testimony.

Frankly, if there are points that you would like to add to supplement the record, either in terms of questions that members may want to submit to the panelists, or in terms of additional information the panelists would like to submit to us, we will keep the record open through Friday for an opportunity for that to happen.

I agree with the comments of many who have testified here today about the critical importance of our clean water, whether it be water for safe drinking water or the clean water of the other water uses and sources that we have in our country. I think it is at the highest level. We must provide the commitment at the Federal level, but make sure we do it smart and in a way that will make sure that we address the priorities without devastating communities. I believe we can do that. We are going to be looking for the path forward to do this as we complete this hearing and move into the other hearings and as this subcommittee addresses this critical issue.

Again, I thank you very much, all of you, for attending.

Senator CRAPO. This hearing is adjourned.

[Whereupon, at 11:52 a.m., the subcommittee was adjourned, to reconvene at the call of the chair.]

[Additional materials submitted for the record follow:]

STATEMENT OF HON. CHRISTINE TODD WHITMAN, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY

Good morning, Mr. Chairman and members of the subcommittee. I am Christine Todd Whitman, Administrator of the Environmental Protection Agency. I welcome this opportunity to discuss the Nation's investment in drinking water and sewage treatment facilities to protect human health and the environment.

As a Nation, we have made great progress over the past quarter century in reducing water pollution and assuring the safety of drinking water. The Clean Water Act and the Safe Drinking Water Act have served us well and provide the solid foundation we need to make sure that all Americans will continue to enjoy safe drinking water and clean rivers, lakes, and coastal waters.

Our success in improving drinking water and surface water quality is the result of many programs and projects by local, State and Federal Governments in partnership with the private sector. But our cooperative investment in water infrastructure—in pipes and treatment plants—has, more than any other single effort, paid dramatic dividends for water quality and public health.

This morning, I want to give you a brief overview of the progress we have made in improving water quality and the water pollution and public health challenges we still face. I also will summarize what EPA knows about the need for future investment in clean water and drinking water facilities and identify the key challenges I see in meeting this need. I will conclude with some thoughts about how Congress and others could proceed when addressing the problems of financing water infrastructure.

CLEAN AND SAFE WATER—ACCOMPLISHMENTS AND CHALLENGES

Most Americans would agree that the quality of both surface waters and drinking water has improved dramatically over the past quarter century.

Thirty years ago, the Nation's waters were in crisis—the Potomac River was too dirty for swimming, Lake Erie was dying, and the Cuyahoga River had burst into flames. Many of the Nation's rivers and beaches were little more than open sewers.

The 1972 Clean Water Act has dramatically increased the number of waterways that are once again safe for fishing and swimming. The Act launched an all out assault on water pollution, including new controls over industrial dischargers, support for State efforts to reduce polluted runoff, and a major investment by the Federal Government to help communities build sewage treatment plants.

The $76 billion in Federal wastewater assistance since passage of the Clean Water Act in 1972 has dramatically increased the number of Americans enjoying better water quality. The economic and social benefits of improved water quality are readily evident all across the country. Some of the most dramatic improvements are seen in urban areas. In cities such as Boston, Cleveland, St. Petersburg and Baltimore, the efforts to restore the health and vitality of our waters has also led to economically vibrant, water-focused urban environments.

The dramatic progress made in improving the quality of wastewater treatment since the 1970's is a national success. In 1972, only 84 million people were served by secondary or advanced wastewater treatment facilities. Today, 99 percent of community wastewater treatment plants, serving 181 million people, use secondary treatment or better.

We have also made dramatic progress in improving the safety of our Nation's drinking water. Disinfection of drinking water is one of the major public health advances in the 20th century. In the early 1970's, growing concern for the presence of contaminants in drinking water around the country prompted Congress to pass the Safe Drinking Water Act. Today, the more than 265 million Americans who rely on public water systems enjoy one of the safest supplies of drinking water in the world.

Under the Safe Drinking Water Act, EPA has established standards for 90 drinking water contaminants. Public water systems have an excellent compliance record—more than 90 percent of the population served by community water systems receive water from systems with no reported violations of health based standards. In the past decade, the number of people served by public water systems meeting Federal health standards has increased by more than 23 million.

Despite past progress in reducing water pollution, almost 40 percent of the Nation's waters assessed by States still do not meet water quality goals established by States under the Clean Water Act. On a national scale, States report that leading sources of pollution include urban runoff and storm sewers, agriculture and municipal point sources. Other sources, ranging from factories to forestry operations, cause water pollution problems on a site-specific basis. Point-source pollution has been so greatly reduced, that now non-point sources are the leading cause of water pollution. Also, although compliance with drinking water contaminant standards is good, public health risks from drinking water can be further reduced.

CLEAN WATER AND DRINKING WATER STATE REVOLVING LOAN FUNDS

The primary mechanism that EPA uses to help local communities finance water infrastructure projects is the State Revolving Loan Funds (SRFs) established in the Clean Water and Safe Drinking Water Acts. The SRFs were designed to provide a national financial resource for clean and safe water that would be managed by States and would provide a funding resource "in perpetuity." These important goals are being achieved. Other Federal, State, and private sector funding sources are available for community water infrastructure investments.

Under the SRF programs, EPA makes grants to each State to capitalize their SRFs. States provide a 20 percent match to the Federal capitalization payment. Local governments get loans for up to 100 percent of the project costs at below market interest rates. After completion of the project, the community repays the loan and these loan repayments are used to make new loans on a perpetual basis. Because of the revolving nature of the funds, funds invested in the SRFs provide about four times the purchasing power over twenty years compared to what would occur if the funds were distributed as grants.

In addition, low interest SRF loans provide local communities with dramatic savings compared to loans with higher, market interest rates. An SRF loan at the interest rate of 2.6 percent (the average rate during the year 2000) saves communities 25 percent compared to using commercial financing at an average of 5.8 percent (see Chart 1).

To date, the Federal Government has provided more than $18 billion in capitalization grants to States for their clean water SRFs through fiscal year 2001. With the addition of the State match, bond proceeds, and loan repayments, the cumulative

funds available for loans of the clean water SRFs were more than $34 billion, of which $3.4 billion was still available as of June 30, 2000.

Since 1988, States have made over 9,500 individual loans for a total of $30.4 billion. In fiscal year 2000 the Clean Water SRFs issued a record total of 1,300 individual loans with a value of $4.3 billion (see Chart 2). The Clean Water SRFs have provided about $3 billion in loans each year for several years.

In 1996, Congress enacted comprehensive amendments to the Safe Drinking Water Act which created a SRF program for financing of drinking water projects. The Drinking Water SRF was modeled after the Clean Water SRF, but States were given broader authority to use Drinking Water SRFs to help disadvantaged communities and support Drinking Water program implementation.

Through fiscal year 2001, Congress has appropriated $4.4 billion for the Drinking Water SRF program. EPA has reserved $83 million for monitoring of unregulated contaminants and operator certification reimbursement grants. Through June 30, 2000 States had received $2.7 billion in capitalization grants, which when combined with State match, bond proceeds and other funds provided $3.7 billion in total cumulative funds available for loans. Through June 30, 2000, States had made close to 1,200 loans totaling $2.3 billion and $1.4 billion remained available for loans. Approximately 74 percent of the agreements (38 percent of dollars) were provided to small water systems that frequently have a more difficult time obtaining affordable financing. States also reserved a total of approximately $420 million of SRF capitalization grants for other activities that support the drinking water program.

WATER INFRASTRUCTURE—FUTURE NEEDS

The Safe Drinking Water Act and Clean Water Act both require that EPA periodically develop a "needs survey" to identify water infrastructure investments.

One month ago, EPA released its second report on drinking water infrastructure needs. The new survey shows that $150.9 billion is needed over the next 20 years to ensure the continued provision of safe drinking water to consumers.

The survey found that water systems need to invest $102.5 billion, approximately 68 percent of the total need, in what the report calls "current needs." In most cases current needs would involve installing, upgrading or replacing infrastructure to enable a water system to continue to deliver safe drinking water. A system with a current need therefore, usually is not in violation of any health-based drinking water standard. For example, a surface water treatment plant may currently produce safe drinking water, but the plant's filters may require replacement due to their age and declining effectiveness, if the plant is to continue to provide safe water. Future needs account for the remaining $48.4 billion in needs; for example, projects that systems would undertake over the next 20 years as part of routine replacement such as reaching the end of a facility's service life.

Transmission and distribution costs are the largest category of need. The survey includes needs that are required to protect public health, such as projects to preserve the physical integrity of the water system, convey treated water to homes, or to ensure continued compliance with specific Safe Drinking Water Act regulations (See Chart 3). Transmission and distribution costs are the largest category, at 56 percent of the total need, or $83.1 billion. Treatment projects make up the second largest category of needs (i.e. 25 percent) and have a significant benefit for public health.

Approximately 21 percent, or $31.2 billion, is needed for compliance with current and proposed regulations under the Act. Nearly 80 percent of the regulatory need is to comply with rules which protect consumers from harmful surface water microbial contaminants, such as Giardia and E. coli. Most of the total needs derive from the costs of installing, upgrading and replacing the basic infrastructure that is required to deliver drinking water to consumers—costs that water systems would face independent of any Safe Drinking Water Act regulations.

As you may know, EPA's most recent survey of clean water infrastructure needs was released in 1996 and we plan on releasing a new clean water needs survey in 2002.

The 1996 clean water needs survey estimated wastewater needs of $140 billion, including $26.5 billion for secondary treatment projects, $17.5 billion for advanced treatment, and $73.4 billion for various types of sewage conveyance projects, including collectors, interceptors, combined sewers, and storm water and $10 billion for nonpoint pollution control projects (see Chart 4). EPA is working to supplement the 1996 clean water needs survey as more accurate information becomes available. For example, the Agency has developed a model to estimate costs associated with reducing sanitary sewer overflows that predicts costs significantly higher than the estimate in the 1996 needs survey.

The Agency is also reviewing issues related to long-term needs, assessing different analytical approaches to estimating those needs, and estimating the gap between needs and spending. Some elements of this analysis—known as the Gap Analysis—have been presented to a range of interested parties and EPA is committed to improving and refining this important work. To this end, the EPA plans to make this analysis available for peer review by expert organizations in the near future.

BROADER CONTEXT OF WATER INFRASTRUCTURE FINANCING

Over the past year, several interest groups including the Water Infrastructure Network, the Association of Metropolitan Sewerage Agencies, and the Water Environment Federation issued reports estimating water infrastructure needs. These estimates were all substantially above those of EPA's Needs Surveys. In general, these cost estimates differ from EPA's because the methodologies and definitions for developing them differs. For example, EPA Needs Surveys include only projects that are eligible for SRF funding under the Clean Water Act and Safe Drinking Water Act. Also, EPA requires that costs included in the Needs Surveys be established by planning or design documentation.

Nevertheless, EPA recognizes that effective decisionmaking concerning water infrastructure financing would benefit from a better understanding of the broader context of this effort. Key components in the broader context of water infrastructure that need to be more fully evaluated are described below.

• *Population Growth.* Steady growth and shifts in population puts substantial pressure on local governments to provide expanded drinking water and sewer services.

• *Aging Infrastructure.* Many sewage and drinking water pipes were installed between 50 and 100 years ago and these pipes are nearing the end of their useful life.

• *Emerging Environmental and Public Health Demands*. As our knowledge of threats to water quality and public health improves, the public expects its water infrastructure to continue to provide clean safe water at reasonable cost.

• *Increasing Operation and Maintenance Costs*. As the size and complexity of water and sewer systems increase, and facilities get older, the costs of operations and maintenance tend to increase.

• *Affordability*. Although water has historically been underpriced, some systems may find it difficult to replace or update aging water and sewer systems and keep household user charges at affordable levels. This issue needs to be kept in mind as future regulations are developed.

FY 2002—WATER INFRASTRUCTURE INVESTMENTS

The President's fiscal year 2002 budget proposes to maintain Federal support for both clean water and drinking water infrastructure.

The Administration proposes $1.3 billion for wastewater grants to States in fiscal year 2002. This funding will provide a substantial and sustained contribution to clean water infrastructure needs. The $1.3 billion requested for wastewater grants to States is $500 million more than the previous Administration's fiscal year 2001 request.

Because of the revolving nature of the clean water SRFs, this fiscal year 2002 capitalization amount will allow the SRFs to provide $3 billion in loans over the next several years. In addition, EPA expects that, over the long-term, the clean water SRFs will be able to provide average annual assistance of $2 billion (see Chart 5).

The Congress recently enacted important new legislation to help communities address water pollution problems caused by overflows of combined and sanitary sewers. In response to this new legislation, the Administration will propose grants to States for these important projects in fiscal year 2002.

In the case of safe drinking water projects, the Administration proposes to maintain capitalization of the drinking water SRF in fiscal year 2002. By the end of fiscal year 2002, we expect the number of loans issued by State drinking water SRFs to reach 2,400, with about 850 SRF funded projects having initiated operations by that date.

In addition, the law currently grants a State flexibility to transfer funds between its clean water and drinking water SRFs. The Administration supports this mechanism to help States fund their priority needs.

This proposed fiscal year 2002 funding will help communities across the country finance important clean water and drinking water projects. As your committee continues to study the water infrastructure needs, the Administration would like to encourage a constructive dialog on the appropriate role of the Federal Government in addressing these needs.

CONCLUSION

Thank you, Mr. Chairman, for giving me the chance to outline EPA's view of the water infrastructure challenges the Nation is facing.

Let me conclude by identifying some of the key issues that Congress, the Administration, the private sector and other interested parties will need to consider as we work toward a common approach to solving water infrastructure problems.

(1) We need a common view of the scale of the water infrastructure problem that we face and the long-term timeframe for making needed investments.

(2) We need to consider the best role for the Federal Government to play in helping States and local governments finance both Drinking Water and Wastewater infrastructure projects and evaluate any barriers faced by local governments in getting access to needed capital as part of this process (e.g. poor bond ratings, interest rates).

(3) We need to consider the strengths and weaknesses of the existing funding mechanisms and consider the best mix of financing under various circumstances. We also need to review the role that privatization might play in the future.

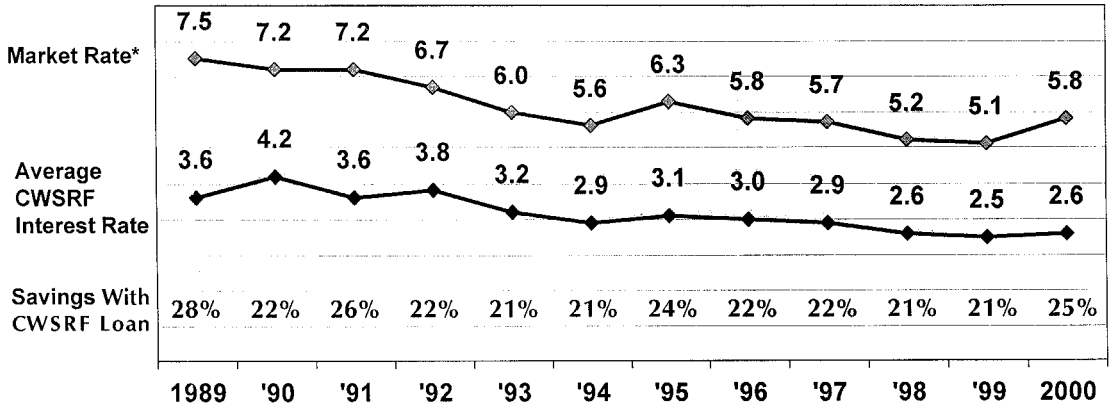
(4) We need to review water and sewer rate structures, encourage rates that make systems sustainable and address concerns that rates are affordable, especially in poor communities.

(5) We need to look closely at Federal mandates to ensure that those mandates are not needlessly costly and burdensome.

(6) Finally, addressing water investment needs in years to come will not only require a strong commitment from Federal, State and local governments, it will call for innovative funding mechanisms, public/private partnerships, and advancements in technologies.

Ensuring that our water infrastructure needs are addressed will require a shared commitment on the part of the Federal, State and local governments, private business, and consumers. I pledge that EPA will continue to work in partnership with Congress, States, local governments, the private sector and others to better understand the water infrastructure challenges we face and to play a constructive role in helping to define an effective approach to meeting these needs in the future. I will be happy to answer any questions.

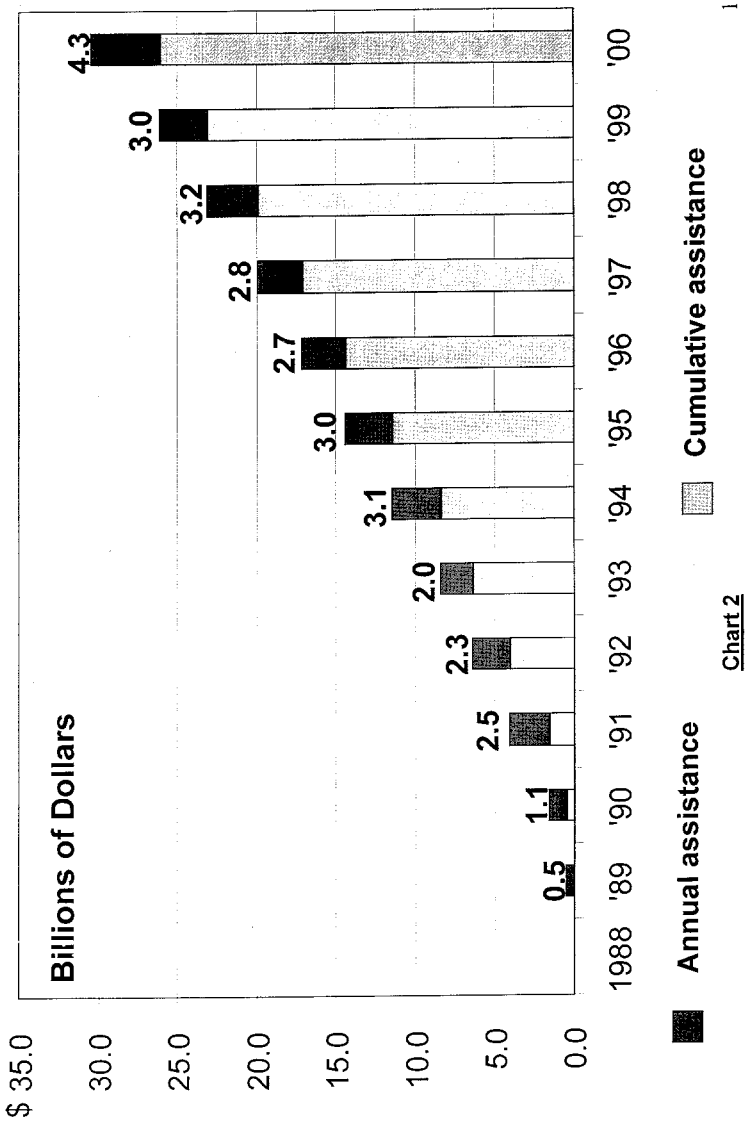
Savings Provided By SRF Loans



*Market rate is measured as the Bond Buyer 20-Bond GO Index.

For example: In 2000, a community would save 25% by financing its project with a typical 20-year loan from a state CWSRF at an average interest rate of 2.6% instead of using commercial financing at an average 5.8% rate

Chart 1


CWSRF Assistance Provided
Billions of Dollars
$ 35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0.5
1.1
2.5
2.3
2.0
3.1
3.0
2.7
2.8
3.2
3.0
4.3
1988 '89 '90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00
Annual assistance
Cumulative assistance
Chart 2

Drinking Water Needs (1999)
Total Need $150.9B

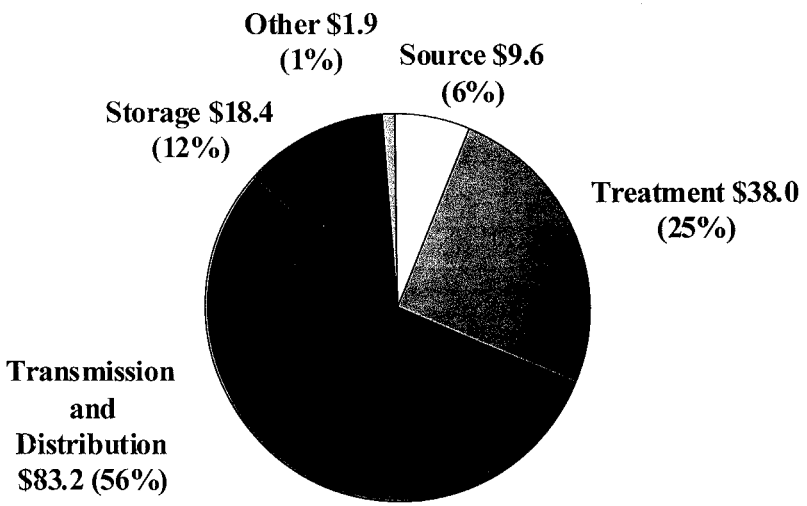


Chart 3

Clean Water Needs (1996)
Total Need $139.5B

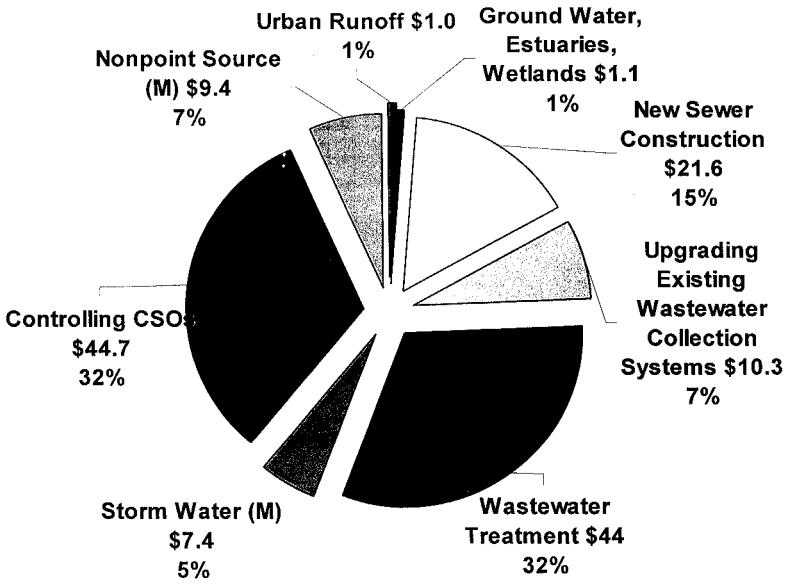
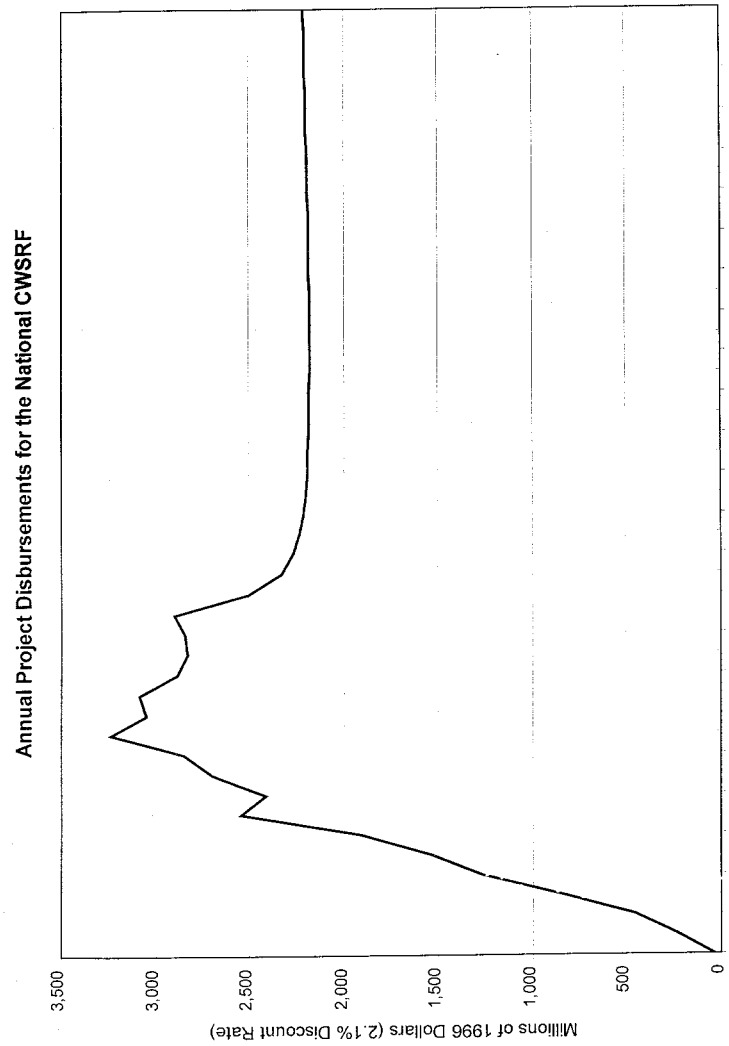


Chart 4



The 2.1% rate is based on the Gross Domestic Product deflator from the Administration's economic assumptions as required by OMB Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, which states "future inflation is highly uncertain. Analysts should avoid having to make an assumption about the general rate of inflation whenever possible." Chart 5

STATEMENT OF J.R. SANDOVAL, CHIEF OF STAFF, IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

Mr. Chairman and members of the committee: My name is Jon Sandoval. I am chief of staff at the Idaho Department of Environmental Quality in Boise, Idaho. I bring greetings to you, Mr. Chairman, from Governor Kempthorne, and director, Steve Allred.

I am testifying to share with you the perspectives of Idaho and other largely rural Western States who, along with their small communities, face unique and often overlooked challenges in meeting water and wastewater needs. On behalf of the State of Idaho, I very much appreciate your invitation to share my comments with you today.

WATER AND WASTEWATER INFRASTRUCTURE NEEDS OF SMALL COMMUNITIES

Enhancements over the years to the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA) have significantly enabled States to address major improvements in how infrastructure needs of small rural communities are served. States have been very successful in their efforts to work with small communities to better define current and projected infrastructure needs in rural areas. It is small communities who are most impacted by lack of capacity and financial stress in assuring citizens are provided safe drinking water and wastewater treatment at an affordable cost.

Small communities face a unique situation as they must weigh the costs of necessary capital investments to meet national environmental and public health goals of the CWA and the SDWA with other pressing public needs. These communities struggle with the need to replace outdated and failing infrastructure in order to achieve environmental compliance. Small communities in Idaho, and in all Western States face a number of common issues:

- How much is available to spend, and are revenues adequate?
- How do they document the need for financial assistance?
- Can debt service be properly managed?
- How do they obtain the necessary engineering, financial and technical expertise at an affordable cost?
- How much does it cost to operate and maintain their facilities?
- How do they find and obtain affordable public financing?
- How much of the cost will consumers have to bear?
- Small communities in Idaho, and throughout the Western United States, find themselves facing what they perceive are unrealistic regulatory burdens. These same communities have serious funding limitations and few opportunities to address drinking water quality and wastewater treatment infrastructure needs in rural areas.

In Idaho, the mechanics of documenting need is a major challenge on our small communities. While limited technical assistance is available from State and Federal sources, these communities face a number of obstacles when it comes to defining need as trends have continued to suggest:

- Federal requirements are increasingly becoming more stringent to improve water quality and drinking water safety.
- Increasing costs of attaining these requirements will continue to escalate as there is a more directed focus to:
    - use technologies that are more complex and expensive
    - recognize energy use costs have tripled in the Pacific Northwest
    - acknowledge the rising costs of capital improvements to replace aging and/or failing water distribution systems and wastewater collection systems is, for many of these communities, an extreme hardship.

Small communities across the western portion of the United States face substantive environmental challenges and responsibilities. Local leaders find themselves, as one Mayor of a small community of 1500 in Eastern Idaho Stated "being documented to death". Documenting needs of small communities to a host of jurisdictional and public financing agencies results in a great deal of dialog and discussion but, unfortunately, yields little or no on-the-ground results. As the Mayor from that small town in Eastern Idaho concludes: "It's all talk. I am asked to make defacto decisions about complex financing and technical issues about water treatment processes without the benefit of knowing exactly what it means to my community".

Small communities are at a distinct disadvantage with Federal requirements for environmental compliance—as these entities lack necessary financial resources, capacity, structure, access to technology, and the right tools in their communities to make informed and rational decisions. The debate in small communities traditionally focuses on the merits of upgrading a 20-year old wastewater treatment plant,

buying a fire truck, or upgrading a 50-year old elementary school. What should the community determine is the best value for their tax dollar: Environmental compliance? Schools? Public Safety? This is the reality of the issues and the decisions small communities have to make.

It is increasingly difficult for small towns to manage and implement environmental requirements, even though EPA and States have broadened and expanded their capacity to provide direct technical assistance. States, as well as the Federal Government, often impose unrealistic expectations on these communities to document need at a level of detail without acknowledging the reality of the issues and decisions these small communities in rural areas must make.

The realities we need to address when it comes to understanding and responding to the infrastructure needs of small communities is that small towns and rural areas dominate our nation. Approximately 90 million people live within jurisdictions serving less than 10,000 residents. Approximately 75 million people live in small, rural communities of less than 2,500. One-third of all local governments do not have any employees. 97 percent of the country's landmass is classified as "rural".

In Idaho, there are 36 rural counties, with 88.3 percent of Idaho's land area, and 36.2 percent of the State's population. Idaho averages 14.8 persons per square mile, compared to 74.6 persons for the United States. Idaho is the seventh most rural State in the country with rural counties averaging 6.1 persons per square mile. Counties with fewer than six persons per square mile are often referred to as "frontier areas" with six counties having less than two persons per square mile. In Idaho, we define a "small community" as a community of 1,000 people or less. I would encourage the Environmental Protection Agency to consider using this definition because it has been our experience using our definition of small communities . . . these are the communities where the greatest hardship exists. These are the communities where the need for infrastructure improvement and enhancement are Idaho's biggest challenge and where we do not see enough Federal response to address the financial stress of rural communities.

People who live in small rural communities in Idaho are proud of their communities and their rural heritage. They want to comply with reasonable health and environmental standards. However, local officials are concerned about requirements where no consideration for the unique circumstances and challenges of small communities has been factored. These same local leaders take issue with unnecessary and cumbersome regulations restricting a small community's ability to respond intelligently to local priorities and needs.

Small communities want to provide the necessary infrastructure for safe drinking water supplies and wastewater treatment facilities but need to have the Federal Government recognize the limited financial capacity these small communities are experiencing. Changing demographics, high unemployment, declining tax base and increased costs of doing business are unique realities of small communities in rural areas. To not acknowledge these realities is a grave mistake. If there is no regulatory relief and no flexibility to find innovative mechanisms to finance small community infrastructure needs, we will witness "regulatory and financial flight" by small communities. As it stands, small communities in Idaho and across all States in the West cannot viably comply with overly prescriptive environmental mandates or find innovative ways to obtain and secure financing for infrastructure needs.

We have a responsibility as public policymakers to assist small communities to build capacity to comply with reasonable environmental regulations and to solve the financing issues in a collective effort to ensure public health and environmental protection.

Fiscal concerns at all levels of government, and particularly for smaller, rural communities, have dramatically elevated the issues of Federal environmental protection program costs and flexibility. Environmental laws depend extensively on State and local implementation, which raise questions of where the financial burden should lie. Public health values are also raised, as it is our responsibility to extend these values uniformly to all citizens, which can also lead to unequal cost burdens because of variations in local conditions, services involved, populations affected and economies of scale. Environmental compliance has become more costly, especially for small communities struggling with other competing public and community needs. Environmental statutes (i.e., CWA and SDWA) are not consistent in addressing the sharing of cost burden of achieving local public health and environmental benefits.

There is a tension between desired environmental goals at the national level and the need to finance infrastructure enhancements at the local level. Issues in this debate include greater use of market incentives, cost effectiveness and flexibility in regulation, and more critical attention to who should pay for environmental protection—the unfunded mandates issue.

A general perception in small communities in the West is that the costs to States and localities imposed by Federal mandates are growing disproportionately faster than Federal assistance. We calculate in Idaho, if we are to meet the infrastructure needs of all small rural communities, we will need to spend considerable State resources and need to find more innovative ways to fund infrastructure needs. We suggest grant funding or, at minimum, very low interest loans in order to allow federally mandated projects to meet new requirements.

If we realistically want to address the small community water and wastewater infrastructure need, we need to see more Federal dollars directed to local government in the form of grants for costs related to National Environmental Policy Act (NEPA) requirements. While the SRF programs in Drinking Water and Wastewater work well for larger municipalities, small communities are distinctly at a disadvantage when it comes to capacity, documenting need, securing the necessary financing package to service to debt obligations.

Compounded by the cost factor is the additional perception that there is no flexibility. State and local interests are at stake. The perceptions of small communities is not to "roll back" environmental and other laws designed to protect the public health and welfare—but, on the contrary, to have firm support that Congress should address the funding issues directly without altering requirements to comply with pollution standards.

Local government is most affected by the costs of complying with federally mandated pollution standards, particularly for meeting drinking water and sewage treatment requirements. The capacity to borrow money at commercial financing institutions is not a viable option. It is our experience that "small communities" without staff, technical and financial expertise, access to technology, and no money—need a much better solution to address their infrastructure needs. Small communities will have to spend considerably more money per year than they now spend if they are to meet the total investment, operation, and maintenance needs to replace aging and failing distribution and collection systems.

Small communities are most frequently at a disadvantage when it comes to "documentation". Small communities lack capacity, know-how, and sophistication to produce Capital Improvement Plans, Environmental Impact Statements (EIS), or Engineering Reports describing capital improvements necessary to provide safe water or demonstrate adequate capacity to treat waste.

In Idaho, as in most rural States, where capital improvement plans and engineering reports are unavailable or cannot be produced by small communities, the State response has been effective. State Water Quality engineering staff take the lead to compile required documentation onsite or through contractual assistance to the community via a State initiated "planning grant" to obtain the necessary data to be submitted to EPA. We sometimes experience great frustration in obtaining approval of priority projects with EPA as approximately 15 percent of our proposed projects are "disapproved" for lack of adequate documentation. While the documentation is provided, there is a general perception in Idaho that there is heavy reliance at EPA to support "modeling data and applications" over documented needs submitted by individual States.

Based on the documentation we collect from small communities, or when small communities have generated and submitted detailed explanations of infrastructure needs on their own, we make determinations for funding based on:

- Public Health Emergency or Public Health Hazard
- Highest Priority to Protect Water Quality and the Environment
- Watershed Restoration
- Watershed Protection from Impacts
- Preventing Impacts to Uses
- Highest Priority to Protect Water Quality and the Environment
- Ability to Pay and Secure Public Financing
- Water Quality Violation
- General Conditions of Existing Facilities
- Under Consent or Administrative Order
- Incentives:
  - Source water assessment
  - Master or facility plan complete
  - Replacement fund established
  - Regionalization/consolidation plan implemented
  - Rate structure
  - Monitoring requirements met
  - Affordability

(O.M.R and debt service greater than 2 percent of median household income (MHI)

Small communities incur pollution control costs because they own or operate public water supplies for drinking water, sewage treatment and/or waste disposal facilities. The 1987 revision to the Clean Water Act began a phaseout of the long-standing federally funded sewage treatment grant program with a revolving loan program that local governments could tap, but would have to repay. When it comes to the needs of small communities, there have to be better solutions and a much better Federal response to provide direct funding assistance to communities of 1,000 or less.

Our experience in Idaho, as it is with most States in the West, is that we have to do a much better job of serving the needs for water and wastewater infrastructure needs of small rural communities. It means, States and EPA must be more flexible, innovative and more responsive to the needs of communities who are experiencing severe financial hardship.

We must work with EPA to find better ways to increase State capacity to provide more technical assistance to these impacted communities. A mandatory Wastewater Operator Certification Program is a good idea in respect to evolving and expanding Federal testing and monitoring requirements—*but* we need to ensure funding is available to train operators before requirements are implemented if we want to ensure we are protecting water treatment in small rural communities.

In respect to the WIN Report, Idaho does agree there will be a substantial funding gap for water and wastewater systems between current investments in infrastructure and the investments that will be needed annually over the next 20 years to replace aging and failing pipes and to meet increasing Federal compliance requirements. Idaho has voted to support the resolution of the Environmental Council of the States (ECOS) passed unanimously at its 2001 Spring Meeting on the Water Gap Analysis.

Providing additional resources to fix aging infrastructure is essential, but no matter how it is ultimately done, States will be expected to play a significant management role. In addition to the gaps in funding, States also continue to face extraordinary needs to manage nonpoint source issues, TMDLs, as well as new proposed rules to manage animal feeding operations . . . which in turn, have an impact on the infrastructure needs of small communities. Increased assistance for State capacity to meet these needs must also be factored into the debate as we attempt to address the rest of our water quality challenges at the local, State and Federal level.

It is the financial and prescriptive "Federal strings" attached to the revolving loan programs for drinking water and wastewater treatment that raise the hackles and the tempers of local government officials trying to find reasonable financing mechanisms to comply with pollution abatement requirements. The Federal Government must come to fully recognize that local governments and ratepayers fund 90 percent of clean and safe water infrastructure costs while struggling to resolve competing demands to educate children, maintain roads, fight crime, and provide other basic access to primary health care services.

Small communities should not have "to choose between providing safe and clean water and funding other necessary community and public needs". Better solutions are needed because what we have is not working for small communities.

Overall infrastructure spending, according to the Congressional Budget Office, was about $200 billion per year by the mid-1990's. The Federal capital expenditure, however, has remained relatively flat at about $50 billion per year from 1977 to 1998, or about 2 percent of the total Federal budget". Local government, and in particular, small communities, has born the brunt of infrastructure improvements and spending since the late 1950's.

The economic history of rural communities is closely linked with natural resources: soils, and water for crop and livestock production; hardrock minerals, coal, oil, and natural gas extraction; and forested lands for timber. Be it rural Idaho, or the Mora Valley of Northern New Mexico; the agricultural production of the San Luis Valley in Southern Colorado; the forested areas of Western Montana; or the Gas Hills in North Central Wyoming—small communities in these areas and throughout the West have continued to depend on water as the life blood of their communities. However, new technologies coupled with globalization of labor and the economy are changing where and how Americans work. New applications in resource extraction industries as well as growth in "service" occupations are helping to diversify many rural economies.

Such diversification offers opportunities for small communities. Until the 1960's, environmental protection, whether to preserve environmental amenities such as swimmable and fishable water, to protect economic values or public health—was almost solely the responsibility of local and State government.

Idaho believes it can manage environmental programs at reduced cost and with more efficient service delivery mechanisms if given requisite flexibility and the abil-

ity to decide and determine State environmental protection priorities. In order to maximize our resources, the correct Federal response will be to address the economic issues of communities of 1,000 people or less.

The cost of environmental compliance and environmental protection vary widely from one area to another. States are concerned about the need and the cost to replace inadequate or aged drinking water and wastewater treatment facilities. States are concerned about the impacts of these costs in rural areas on small communities in particular. Without a significantly enhanced Federal role in providing direct financial assistance to drinking water and wastewater infrastructure, critical investments in small communities will not occur.

Idaho, as well as other Western States, would consider entering into a serious discussion with EPA to closely assess and evaluate the water and wastewater treatment infrastructure needs of communities of 1,000 people or less. The area of focus needs to be directed at increasing State capacity to address impacted community issues, financing, documentation of needs, transmission costs, regulatory compliance, and establishing standards appropriate to small rural communities. We would ask Congress to seriously consider other funding options to get financial resources to these communities in order to respond appropriately to the infrastructure needs.

It has been the Idaho experience that small communities do not have the financial resources available to shoulder the immediate and long-term infrastructure improvement or replacement costs of aged facilities. There is a definitive need for targeted financial assistance to pay for expensive water treatment facilities and adequate public water supplies in small rural communities.

The Federal Government must come to fully recognize that local governments and ratepayers fund 90 percent of clean and safe water infrastructure costs while struggling to resolve competing demands to educate children, maintain roads, fight crime, and provide other basic access to primary health care services.

Small communities should not have "to choose between providing safe and clean water and funding other necessary community and public needs". Better solutions are needed because what we have is not working for small communities and the infrastructure needs are not being adequately addressed in spite of State government efforts to find more creative ways to assist these communities.

Local capacity for developing long-term funding strategy is very limited in rural communities due in large to the complexity of the policies. Economies of scale do not favor small communities. Greater assistance is needed to help communities address infrastructure issues and the need for capital asset management.

The complex matrix of Federal, State and private funding sources provides flexibility in water quality efforts; however, this flexibility only exists if knowledge and capacity are present. Greater funding is needed to help build financial knowledge and capacity of rural communities.

We need to work together to design and develop an integrated vision of the economic, environmental and social characteristics of small communities. This requires strong leadership at all levels.

Thank you, Mr. Chairman and members of the committee, for this opportunity to comment on this important issue to States and to the small communities we serve in rural areas.

WHAT DO WE NEED TO DO?

- Appropriate flexibility needs to be incorporated into new environmental regulations, and added to existing ones to account for small community priorities and needs. Moreover, regulations should be written in user-friendly language the average citizen can understand.
- We need to switch gears. We need to focus on results and not process. Rules and regulations should identify a result to be achieved rather than a process to be followed.
- SDWA statutory requirements for new contaminants are not based on sound science or risk factors. We need to identify a process to select contaminants for regulation based on sound science, relative risk, and on the real dollar cost of implementation.
- Revisit testing and monitoring requirements for contaminants in SDWA and for effluents and background ambient water criteria related to wastewater treatment under the CWA. If we set requirements, the requirements should consider standards for which there is affordable technology to undertake testing and implement adequate monitoring activities.
- The provisions of the Davis-Bacon Act often have the effect of setting wages at a much higher rate than the local market can sustain. Small communities should

pay a fair wage based on a local competitive market, rather than a prevailing wage based on a wage scale that is influenced by larger, metropolitan areas.

• The process for approving new analytical methods for monitoring and testing drinking water and wastewater should be streamlined and expedited.

• A review of the necessity for small rural communities to comply with: National Environmental Policy Act (NEPA); Davis-Bacon wage rates; Minority and Women's Business Enterprise (MBE/WBE) goals; and, Equal Employment Opportunity (EEO) requirements, are costly relative to the amount of money small communities need for infrastructure improvements and/or enhancements. We need to eliminate the red tape.

• If Water and Wastewater Infrastructure Financing Authorities (WWIFAs) are required, this creates a difficulty in Idaho. It is not likely the Idaho Legislature would be agreeable to creating another Financing Authority, as there is no indication specifying how much of the fund could be used for administering programs or what the scope and magnitude of the entity would entail.

• EPA needs to improve methodologies for assessing the environmental impacts, costs, and practical and technical applications of proposed regulations and funding mechanisms. Special consideration should be given to how regulations will impact communities with populations less than 2,500. We need to make sense of the nonsense.

• EPA needs to formulate a reasonable method for allocating Federal resources and funds for water and wastewater infrastructure needs targeted on the basis of need . . . recognizing that small communities often pay a disproportionate share of the expense.

• States need to be fully recognized and funded for their ability to solve local problems in the most economically feasible and timely manner and to manage water and wastewater infrastructure programs based on experience, capacity, and ability to work with local communities to solve issues. The Federal Government is too far removed to effectively become "your locally involved Federal Government." Small communities know their needs, potential, and limitations.

• EPA and Congress need to recognize that States have the capacity and the experience to provide technical assistance to assist small communities to comply with water and wastewater requirements with less Federal oversight and intervention.

FY 2001 State Loan Drinking Water Project Priority (Sorted By Rank and Rating—DW)

Rank	Project	FY 2001 Rating	Pop	Regional Office	DEQ Est. Loan Amt.	Project Description
1	Rivers Pointe HOA	215	140	BOI	50,000	Expand Filtration System (SWTR)
2	Bruneau Water & Sewer Dist.	196	80	BOI	286,000	Fluoride Treatment
3	Four Seasons Ranch #2.	172	160	POC	60,000	Reverse Osmosis Filter and Pressure Tank
4	Ashton	148	1,180	IdF	450,000	Treatment Improvements
5	McCall, City of	134	2,005	BOI	5,000,000	Installation of Filtration (SWTR)
6	Valley View WS Dist ...	133	150	LEW	500,000	New well and wellhouse
7	Parkview Water Assn	132	90	CdA	20,000	2nd well needed to eliminate nitrate contamination
8	Black Cliffs MH Park	130	100	POC	70,000	Connect to Pocatello Water System
9	Central Shoshone Cnty Wtr Dst.	104	4,052	CdA	1,500,000	Upgrade Shoshone County well, lead-copper treatment, replace transmission line
10	Pocatello	95	51,344	POC	2,000,000	Drinking Water Aeration Facility
11	Laclede Wtr District ...	94	400	CdA	150,000	Phase II Water Treatment Plant Improvements
12	Burke-East Shoshone County Water Dist.	90	100	CdA	400,000	SWTR Compliance
13	Idaho City, City of	87	397	BOI	118,000	Install Chlorine Contact
14	Kingston Wtr District	84	800	CdA	600,000	Install Filtration or Well (SWTR) Corrosion Control (SDWA)
15	Bancroft, City of	81	430	POC	100,000	New wells and water lines
16	Little Blacktail Ranch Park.	81	60	CdA	30,000	New Wells
17	Riverside Independent W/S Dist.	80	77	LEW	1,180,000	New Storage Tank, WTP Upgrade
18	Clifton	79	250	POC	150,000	New Well and Distribution Upgrade
19	Salmon, City of	76	154	IdF	5,500,000	Upgrade Coagulation and Filter System and Add 1.5 MG storage

FY 2001 State Loan Drinking Water Project Priority (Sorted By Rank and Rating—DW)—Continued

Rank	Project	FY 2001 Rating	Pop	Regional Office	DEQ Est. Loan Amt.	Project Description
20	Priest River, City of ...	71	2,000	CdA	750,000	Additional storage reservoir and addl contact time
21	Bloomington	70	300	POC	200,000	New Storage System
22	Weiser, City of	69	5,262	BOI	2,000,000	New flocculation, sedimentation, chem feed and storage bldg, change from chlorine gas to another disinfectant, new clear well.
23	Deary, City of	68	529	LEW	120,000	New well or well upgrade
24	Genesee, City of	67	775	LEW	500,000	New well and Wellhouse
25	West Mtn. Water User Assn./South Lake Wtr & Sewer Dist.	66	150	BOI	500,000	New Supply and/or Filtration (SWTR) and Distribution Lines
26	North Oakley Holding Co.	66	100	TwF	517,000	Second Source, Storage, Distribution
27	Filer, City of	66	1,640	TwF	350,000	Well, Pump Controls and Distribution System
28	Elm Park	65	130	TwF	75,000	Upgrade
29	Atlanta Water Assn	65	50	BOI	20,000	Re-coat Storage Tanks
30	Smith Road Wtr Users	62	66	POC	50,000	New Well and Storage Tank
31	Arimo, City of	61	320	POC	300,000	New Well and Distribution System Upgrade
32	North Forks Water Works.	60	64	IdF	30,000	Install Corrosion Control/Disinfection
33	Pocatello, City of	58	53,074	POC	750,000	Three (3) new wells
34	Weippe, City of	56	805	LEW	250,000	New Storage Reservoir
35	Homedale, City of	55	1,963	BOI	500,000	System Upgrade
36	Rapid River Subdivision.	55	89	LEW	200,000	Disinfection and Contact Time
37	Whitney-Nashville Wtr Dst.	55	400	POC	235,000	New Storage and Meters
38	Georgetown	54	1,557	POC	100,000	Spring reconstruction
39	Carey Water & Sanitation Dist.	54	150	TwF	250,000	New Source & Wellhouse
40	Twin Falls Joslin Field	54	32,000	TwF	400,000	Storage, Pump Station Retrofit and Distribution
41	New Hope	53	49	LEW	40,000	New Well
42	Jerome	52	7,250	TwF	1,764,954	Distribution System, Retrofit Small Water Lines
43	Valley View Heights ...	52	65	IdF	30,000	Install Corrosion Control
44	Challis, City of	50	1,073	IdF	800,000	Needs to Increase Contact Time for SWTR
45	Kootenai County Water Dist.	48	450	CdA	447,000	Water Treatment and Disinfection
46	Serenity Terrace MH Park.	47	26	CdA	25,000	Water Treatment, Construct Well house and land purchase
47	Rexburg	47	15,000	IdF	250,000	Disinfection System
48	Franklin	46	500	POC	50,000	Acquire Property Adjacent to Source
49	Stites	46	253	LEW	6,000	Reservoir Repair
50	Del Rio Estates	46	46	TwF	10,000	New Source
51	Donnelly, City of	44	135	BOI	210,000	Back-up Well
52	McCammon	44	800	POC	250,000	Upgrade Distribution System
53	Scriver Woods HOA	43	75	BOI	25,000	Corrosion Control for Lead and Copper
54	New Horizon Wtr Assn	43	85	BOI	125,000	Back Up Well, Storage and Distribution Improvements
55	Murtaugh, City of	43	130	TwF	750,000	Well, Distribution and Storage
56	Orofino, City of	42	1,609	LEW	2,000,000	New Tank, Distribution Upgrade and WTP Upgrade
57	Eagle Water	42	8,000	BOI	700,000	Construct a 2-million gallon reservoir
58	Fishhaven Pipeline Co	41	200	POC	250,000	Upgrade Dist. System
59	Leisure Acres	41	180	CdA	50,000	Corrosion Control and Dist. System Replacement
60	Tammany Alternative Ctr.	41	225	LEW	115,000	35,000 ft of 8″ pipe—top connect to LOID
61	Driggs, City of	41	835	IdF	2,000,000	Install filter system
62	Cambridge, City of	41	383	BOI	1,500,000	Distribution, Storage, and Upgrade Well #1

FY 2001 State Loan Drinking Water Project Priority (Sorted By Rank and Rating—DW)—Continued

Rank	Project	FY 2001 Rating	Pop	Regional Office	DEQ Est. Loan Amt.	Project Description
63	Star Water & Sewer Dst.	41	1,344	BOI	20,000	Telemetry system, treatment system, and bldg for well #2
64	Rolling Hills Wtr Co ...	40	250	BOI	30,000	Replace old 50 hp pumps
65	Payette, City of	40	5,592	BOI	500,000	Construct a 1-million gallon reservoir
66	Burley, City of	40	9,500	TwF	2,250,000	Dist. System, storage, telemetry
67	Blackfoot, City of	39	9,600	POC	200,000	New water line installation west of Snake River
68	Sagle Valley Water/ Sewer Dist.	39	70	CdA	136,000	New well and water main replacement
69	Lewiston, City of	39	14,052	LEW	9,075,000	New Water Treatment Plant, New 1-million gallon storage tank
70	Groveland Wtr Swr Dst	39	200	POC	330,000	New well, addl storage, upgrade dist. system
71	Shoshone County	38	4,052	CdA	500,000	Upgrade Enaville Well
72	Montpelier, City of	36	3,000	POC	520,000	New Well, Storage Reservoir, Dist. Upgrade
73	Round Valley Water Assn-Challis.	35	125	IdF	150,000	Addl water storage and repair of existing well
74	Dubois, City of	35	300	LdF	20,000	Replace Pump and shaft at well #1
75	Aberdeen, City of	33	1,800	POC	3,200,000	New well and water lines
76	Atomic City, City of ...	33	60	POC	200,000	New Well and dist system upgrade
77	Grandview Water & Sewer Assn.	33	450	BOI	150,000	Wastewater Treatement upgrade-nitrate problem
78	Riverend Estates	33	25	POC	50,000	New well
79	Island Village MH Park.	32	70	BOI	20,000	New well, new pumphouse
80	Eagle West Subdivison	32	92	BOI	100,000	Replace water main
81	Buhl, City of	32	3,600	TwF	1,700,000	Loop system and storage
82	Notus, City of	32	3,380	BOI	500,000	New source distribution and storage improvements
83	Hulen Meadows Wtr Sys.	30	390	TwF	350,000	New well source, new reservoir and meter system
84	Hauser Lake Wtr Sys	30	850	CdA	850,000	New reservoir, replace transmission and dist. piping
85	New Plymouth, City of	30	1,313	BOI	800,000	Back up source, dist. and storage improvements
86	Valhalla Hillis	30	75	LEW	120,000	Fix water lines, install new well
87	Albion, City of	28	310	TwF	10,000	Increase well depth
88	Kimberly, City of	27	2,361	TwF	400,000	Dist. system and meters
89	Picabo, City of	26	50	TwF	35,000	New source
90	Riggins, City of	26	430	LEW	5,000	Upgrade chlorination system
91	El Rancho Heights	25	235	BOI	100,000	Back up well and storage
92	Hailey, City of	25	6,500	TwF	1,669,850	Storage reservoir and new sorce
93	Hazelton, City of	25	550	TwF	522,000	Storage, new well, systems control and distribution
94	West Bonner Water Dist.	24	500	CdA	800,000	Replace Transmission Line
95	Greenleaf Water Assn	24	500	BOI	250,000	System upgrade
96	Lapwai, City of	23	932	LEW	150,000	New storage tank, distribution system upgrade
97	Victor, City of	22	292	IdF	300,000	Upgrade Spring (GWUDI)
98	Eden, City of	21	345	TwF	60,000	Generator and distribution system
99	Holbrook, City of	20	50	POC	50,000	New pump and distribution system
100	Cottonwood, City of ...	20	941	LEW	70,000	New well and remodel
101	Spendid Acres	20	88	BOI	16,000	Upgrade distribution system
102	Elm Park Water System.	19	130	TwF	75,000	Dist. and Generator upgrade
103	Wymosa Water Assn ..	19	30	BOI	10,000	Replacement of water lines, update of pumps
104	Plummer, City of	18	800	CdA	565,000	New Transmission Line
105	Hayden Lake Irrigation Dst.	18	1,850	CdA	1,500,000	New water storage tank
106	Preston, City of	18	4,355	POC	1,400,000	Water main extension and meters

FY 2001 State Loan Drinking Water Project Priority (Sorted By Rank and Rating—DW)—Continued

Rank	Project	FY 2001 Rating	Pop	Regional Office	DEQ Est. Loan Amt.	Project Description
107	Snake River RV Resort	17	28	BOI	20,000	Install secondary water treatment
108	Sky Ranch Estates	17	27	BOI	100,000	Increase storage capacity
109	Grangeville, City of	16	3,226	LEW	800,000	Upgrade high pressure zone, repair leaks, upgrade dead-end lines
110	Wayside Estates	16	50	TwF	30,000	New source
111	Skin Creek Wtr Assn ..	16	150	CdA	45,000	Dist. system upgrade to correct pressure problems
112	Dalton Gardens Wtr Assn-Inc.	16	2,000	CdA	150,000	Water main replacement
113	Northside Water Users Assn.	16	350	CdA	55,000	New transmission line
114	Beeline Water Assn, Inc.	14	121	CdA	140,000	Upgrade Dist. System
115	Ahsahka Wtr System ..	12	85	LEW	120,000	New Well and System Upgrade
116	Ross Point Wtr Dist ...	12	3,000	CdA	200,000	New well and transmission line, pumphouse
117	Arco, City of	12	700	POC	300,000	Upgrade Dist. System
118	Cottonwood Point Wtr Assn.	12	63	CdA	50,000	New storage tank
119	North Fork Trailer Court.	11	70	TwF	30,000	Filter system
120	Pineridge Wtr & Swr Dst.	11	390	LEW	300,000	Replace 4″ water main with 6″ wtr main, replace galv, service lines, control valves and hydrants
121	Craigmont, City of	10	542	LEW	120,000	Replace hydrants, water mains, service lines, separate water/sewer lines
122	McKinney MH Park	10	45	LEW	40,000	New well
123	Buffalo River Estates	5	120	IdF	1250,000	Install new well and dist. lines
124	Happy Valley Rancho Water Inc.	5	250	CdA	20,000	Recoat and/or replacement water storage tanks
125	Onaway, City of	2	290	LEW	5,000	System upgrade
126	Travel America Park ..	2	50	CdA	20,000	New well
127	Garden Valley School Dst.	2	200	BOI	3,000,000	Drill potable well for school

(SWTR)—Improvements required to comply with Surface Water Treatment Rule
(SDWA)—Improvements needed to comply with Lead-Copper Rule

FY 2001 State Loan Wastewater Project Priority (Sorted By Rank and Rating—WW)

Rank	Project	FY 2001	Reg	DEQ Est. Loan Amount	Needs Category	Project Description	STEP	Discharge Permit #	BOD	SS
1	South Fork CdA River Sewer Dist	44	CdA	4,000,000	I,IIIA	Plant Upgrade & I/I Removal	4	ID–002130–0	30	30
2	Pine Ridge SD	40	LEW	1,000,000	I	Plant Upgrade	4	No Discharge		
3	Outlet Bay Water/Sewer Dist	40	CdA	2,293,000	I	Plat Upgrade and Land App. System Upgrade	4	No Discharge		
4	Coolin SD	40	CdA	1,000,000	I	Plant Upgrade Land Application	4	ID–002150–4	30	30
5	Kamiah	40	LEW	3,500,000	I,IVB	Plant Upgrade/New Interceptor	4	No Discharge		
6	Valley County So Lake Sewer Dist	31	BOI	6,000,000	I,IVA–B	New Plant/New Collectors and Interceptors	4	No Discharge		
7	Pocatello	30	POC	13,000,000	IVA–B	Treatment Plant/Interceptor Upgrade (Phase II) Phase III-Dist. upgrade.	4	ID–002178–4	30	30
8	Fremont Cnty Last Chance/Ponds Lodge	30	IF	1,088,100	I	Plant Upgrade	4	No Discharge		
9	Granite/Reeder Sewer District	27	CdA	2,000,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
10	Fremont County Sawtelle Area	24	IF	1,000,0000	IVA–B	New Collectors & Interceptors	4	No Discharge		
11	Rupert	22	TwF	4,500,000	I	Plant Upgrade	4	No Discharge		
12	Fremont County Buffalo River Area	22	TF	1,000,000	IVA–B	New Collectors & Interceptors	4	No Discharge		
13	St. Charles/Fish Haven	20	POC	500,000	I	Expand Land Application	4	No Discharge		
14	Fremont County Henry's Lake	20	IF	3,500,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
15	Coeur d'Alene	20	CdA	2,000,000	I	Plant Upgrade—Nitrification Facilities	4	ID–002285–0	30	30
16	Williams Lake	19	IF	750,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
17	Fremont County Island Park Res. Area	18	IF	3,500,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
18	Meridian	17	BOI	5,000,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	ID–002019–2	10	30
19	Nampa	17	BOI	10,000,000	I	Plant Upgrade	4	ID–002206–3	30	30
20	Valley View Heights Lemhi	17	IF	500,000	IVA–B	New Collectors & Interceptors	4	ID–002000–1	30	35
21	Payette	17	BOI	3,000,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	ID–002067–2	30	30
22	Lava Hot Springs	17	POC	255,000	I	New Main Line, Land App. Irrigation Equipment, and Purchase Land App. Site.	4	ID–002182–2	60	60
23	Lake Cascade Ranch Sub NLRSWD	17	BOI	106,000	IV–A	Collection System	4	No Discharge		
24	Lemhi Co/Salmon	17	IF	500,000	IVA–B	New Collectors & Interceptors	4	ID–002000–1	30	35
25	West Mtn. Estates	17	BOI	111,000	IV–A	Cameron Drive South-Collection System	4	No Discharge		
26	Boise Sewer #2	16	BOI	1,600,000	IIIB	Sewer Rehab.-NW Trunk	4	ID–002044–3	20	30
27	Hagerman	16	TwF	1,000,000	I,II,IVB	Additional Capacity/Advanced Secondary/New Interceptor	4	ID–002594–1	45	70
28	Donnelly	16	BOI	150,000	IIIB	Sewer Rehabilitation	4	No Discharge		
29	Burke Canyon Area	15	CdA	500,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	ID–002129–6	30	30
30	Horseshoe Bend	15	BOI	500,000	I	Plant Upgrade	4	ID–002102–4	30	30
31	Spirit Lake	15	CdA	1,000,000	I	Plant Upgrade	4	No Discharge		
32	Bloomington	15	POC	525,000	I	New Lagoon, chlorination and land application	4	No Discharge		
33	Emmett	15	BOI	1,500,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	ID–002031–1	30	70

34	Lewisville	14	IF	1,500,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
35	Burley	14	IF	8,000,000	I	WWTP Upgrade	4	ID–00200–95	30	30
36	Melba	13	BOI	500,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	No Discharge		
37	Eagle Sewer Dist	12	BOI	500,000	I,IV–B	Plant Upgrade/Pump Station	4	No Discharge		
38	Tensed	12	CdA	500,000	I,IIIA	Treatment Plant Upgrade/I/I Correction	4	No Discharge		
39	Athol	12	CdA	2,000,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
40	Paul	12	TwF	200,000	IIIB	Sewer Rehabilitation	4	No Discharge		
41	Downey	11	POC	300,000	I	Expand Lagoon Treatment	4	No Discharge		
42	Bannock Co/Tyhee	11	POC	2,000,000	IVA–B	New Collectors and Interceptors to Chubbuck	4	ID–002178–4	30	30
43	Greenleaf, City of	11	BOI	2,500,000	I,IVA–B	New Treatment Plant and New Collectors & Interceptors	4	No Discharge		
44	American Falls	10	POC	110,000	I	Anaerobic Digested Sludge Disposal Facilities	4	ID–002075–3	30	30
45	Bingham County Riverside/Moreland	10	POC	3,500,000	I,IVA–B	New Collectors & Interceptors to Blackfoot	4	No Discharge		
46	Preston	10	POC	600,000	I	Interceptors & Collectors Upgrade (Phase II)	4	ID–002021–4	30	30
47	Kendrick	10	LEW	1,000,000	I,IVB	Plant Upgrade/New Interceptors	4	ID–002455–4	45	70
48	Wendell	10	TwF	550,000	IVA–B	New Collectors & Interceptors	4	No Discharge		
49	Rigby	10	IF	1,000,000	I,IIA	Plant Upgrade/Evaluate I/I	4	ID–002001–0	30	30
50	Plummer	10	CdA	800,000	IIIB,IVB	Upgrade facility, I/I Rehab, New Interceptor	4	ID–002278–1	30	30
51	Culdesac	10	LEW	500,000	I	Treatment Facility Upgrade	4	No Discharge		
52	Kimberly	9	TwF	2,000,000	IV	Rehab	4	No Discharge		
53	Buhl	9	TwF	500,000	I,IVB	New Interceptor	4	ID–002066–4	60	90
54	Lapwai	8	LEW	100,000	I	Plant Upgrade	4	No Discharge		
55	Southside Sewer District-Sagle Area	8	CdA	500,000	I,IVA–B	New Secondary/New Collectors and Interceptors	4	No Discharge		
56	Meridian	8	BOI	3,000,000	IVA–B	New Collectors & Interceptors	4	ID–002019–2	10	30
57	Star Sewer District	8	BOI	4,000,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	ID–002359–1	45	70
58	Grace	7	POC	300,000	IVA–B	New Collectors/Interceptors	4	ID–002382–5	30	30
59	City of Ketchum	7	TWF	3,500,000	I,IIIB	Plant Upgrade	4	ID–002028–1	30	30
60	Boise	6	BOI	1,000,000	III–B	Miscellaneous Sewer Rehab	4	ID–002044–3	20	30
61	Aberdeen	6	POC	100,000	I	Treatment Plant Sludge Handling Upgrade	4	ID–002017–6	30	30
62	Kuna	6	BOI	1,200,000	I	Plant Upgrade	4	No Discarge		
63	Hayden Reg Swr Bd	6	CdA	300,000	I	Septage Handling Facility	4	No Discarge		
64	Montpelier	6	POC	250,000	IIIB	Sewer Rehabilitation	4	No Discarge		
65	Challis	6	IF	300,000	I	Plant Upgrade	4	No Discarge		
66	Jerome	6	TWF	2,500,000	I	WWTP Upgrade	4	ID–002016–8	30	30
67	Dover	6	CdA	500,000	IVA–B	New Interceptors & Collectors	4	No Discarge		
68	Sandpoint	6	CDA	1,000,000	.....	Plan Upgrade.				
69	Sagle Valley WS Dist	6	CDA	115,000	.....	Collection system replacement replace drainfield	4	No Discharge		
70	Orofino	6	LEW	1,000,000	I	Improve Biosolids Management Systems at WWTP	4	No Discharge		
71	Malad	4	POC	350,000	IIIB	Sewer Rehabilitation	4	No Discharge		
72	Boise	4	BOI	10,300,000	II	Phosphorus Removal/Advanced Treatment	4	ID–002044–3	20	30
73	Boise	4	BOI	16,000,000	I	Upgrade Existing West Boise Facility	4	ID–002398–1	20	30

FY 2001 State Loan Wastewater Project Priority (Sorted By Rank and Rating—WW)—Continued

Rank	Project	FY 2001	Reg	DEQ Est. Loan Amount	Needs Category	Project Description	STEP	Discharge Permit #	BOD	SS
74	Georgetown	3	POC	150,000	I,IVA	New Interceptor and Replacement Aerators	4	ID–002514–3	30	30
75	Mountain Home	2	BOI	1,500,000	I,IIIB, IVA–B	Plant Upgrade/Sewer Rehab New Collectors & Interceptors	4	No Discharge		
76	Nampa	2	BOI	1,000,000	IIB, IVA–B	Sewer Rehab/New Collectors and Interceptors	4	ID–002206–3	30	30
77	Caldwell	2	BOI	1,000,000	IIB, IVA–B	Sewer Rehab/New Collectors Interceptors	4	ID–002150–4	30	30
78	McCall	2	BOI	1,500,000	IVA–B	New Collectors & Interceptors	4	ID–002023–1	20	20
79	Homedale	2	BOI	300,000	I,IIIB	Plant Upgrade/Sewer Rehab	4	ID–002042–7	45	70
80	Troy	2	BOI	500,000	I	Plant Upgrade	4	ID–0023604	45	70

Needs Category
I: Secondary Treatment
II: Advanced Treatment
IIIA: Infiltration/Inflow Correction
IIIB: Replacement/Rehabilitation
IVA: New Collector Sewers
IVB: New Interceptor Sewers
V: Combined Sewer Overflows
VI: Storm Water
WARNING: USE OF THIS LIST AS A MAILING LIST OR A TELEPHONE NUMBER LIST BY IDAHO CODE SECTION 9–348 AND IS PUNISHABLE BY A CIVIL PENALTY OF UP TO $1,000.
(SWTR)—Improvements required to comply with Surface Water Treatment Rule
(SDWA)—Improvements needed to comply with Lead-Copper Rule

RESPONSES BY JON SANDOVAL TO ADDITIONAL QUESTIONS FROM SENATOR CRAPO

Question 1. Approximately 15 percent of infrastructure projects submitted by States and utilities have been rejected by the EPA in both the drinking water and wastewater areas. To what do you credit this discrepancy?

Response. The discrepancy in the 15 percent rejection is due in part to several factors. One apparent reason could be the rigid software modeling applications and protocols developed by the Environmental Protection Agency (EPA) to be used in the Needs Survey for projects. The software modeling applications, as I understand the process, rejects data that is not available from a submitted document such as a completed engineering report. Some projects that have been submitted have, on occasion, exceeded the parameters of the modeling application software and have been rejected back to individual States for additional clarification. Another example for the discrepancy could be that Needs Surveys submitted in the past, were subject to third-party reviews of data conducted prior to the data being entered into the system at EPA Headquarters. The mechanics of documenting need is a major challenge to small communities in Idaho. Increasing costs of meeting requirements coupled with lack of technical expertise, financial capacity, staff, and access to state-of-the art technologies all factor into recognizable limitations.

Question 2. What data collection system improvements do you recommend for increasing the reliability and confidence in the needs information?

Response. As in all data collection systems developed by the Federal Government, feeding data into a Federal repository is not necessarily the answer. There is a significant need to:

- Improve the accuracy and reliability of environmental data;
- Make the data more accessible to constituents; and,
- Reduce the cost and burden of exchanging such information.

It is possible for Federal agencies to be "data rich; but information poor." Integrated data systems with relational databases to allow the uploading and downloading of relevant State data needs information would be a substantive step forward.

To EPA's credit, there is some recognition that States are well out in front of EPA in designing efficient data systems that are accessible and user-friendly. More flexibility in data entry, QA/QC would improve the speed of data validation in the area of needs surveys . . . relying primarily on an increase in trust between governmental entities.

We have experienced one major improvement in the data collection systems as we have been allowed to "directly input" data through user friendly software on our computer network. There will be no "third party" review of the data. We see this improvement as a step in the right direction toward more flexibility and less oversight in determining need.

Question 3. What role can technology innovation play in reducing utility needs?

Response. Innovation in technology, when affordable and accessible to small communities, could play a significant role in reducing utility needs. This requires "out-of-the box" thinking, and suggests a more collaborative process to identify ways States and the Federal Government can work together to reduce these needs. The Environmental Council of the States (ECOS) has assembled a Small States Technical Assistance Initiative comprised of small States addressing major environmental issues such as improvements in data collection systems and finding ways to reduce cost and increase service to local government jurisdictions.

SMALL STATES TECHNICAL ASSISTANCE INITIATIVE

The goal of the Small States Technical Assistance Initiative (SSTAI) is to build the institutional and informational capacity of "small" States to provide timely, accurate, and high quality information internally, to the public and EPA. Broadly defined, "small" States are characterized by inconsistent funding for enterprise wide information projects, small and dispersed funding sources, limited IT staff, and fewer regulated facilities. Small States have fewer options on how to approach IT system development and maintenance due to fiscal and human resource limitations. The central theme of the SSTAI is to develop a collaborative network of States that will function to provide shared information technology assistance and work towards investments in State capacity building. By addressing information management issues as a group, the SSTAI may better leverage development costs and human resource knowledge, maintain greater institutional momentum, provide consistent investment payback, and more economically produce readily usable materials and approaches that can be efficiently shared and implemented.

Question 4. Does the State of Idaho coordinate with other Federal agencies when working to establish accurate community needs information and documentation.

Response. The State of Idaho coordinates wherever possible with other Federal agencies on a limited basis. The extent of our involvement has been through the Environmental Council of the States (ECOS) where a major focus has been to address issues primarily with the EPA. In recent years, Idaho, in conjunction with ECOS has worked with other Federal agencies such as: Department of Energy; Department of Interior; Corps of Engineers; Department of Transportation; Federal Highways; and, other Federal land management agencies. The discussions have not centered around establishing accurate community needs information and documentation, but have been along general terms to address impacts on small communities, sustainability, public involvement, and finding better solutions to address the needs of small, rural communities. The former Mayor of Fairfield, Idaho at one time chaired the EPA Small Towns Task Force that was a great vehicle to identify, discuss, and present small community issues on a national scale from a rural State perspective.

Question 5. Does the relative younger age of systems in western States indicate that future costs will increasingly be a problem?

Response. The age of our systems, when we factor in infrastructure life span, capacity, and ability to meet forecasted growth, definitely means there are strong economic and physical indicators that cost will be an increasing problem well into the future.

Question 6. How do growth and demographic issues complicate assessing infrastructure needs?

Response. In reviewing the 2000 Census data for Idaho, and from our experience in the field, Idaho does have small cities that have doubled or even tripled in size during the last ten years. The State is currently undergoing major change in population centers and economic development. Southwest Idaho (Ada, Canyon, and Elmore counties) has seen dramatic increases in population, economic development, commercial and residential construction, and significant changes in land use patterns in recent years. The change will continue well into the next decade if all economic and demographic indicators prevail. Other growth areas include Kootenai County, Idaho Falls, Twin Falls and Pocatello. As structures age, cost for replacement, enhancements and upgrade could be a major impediment.

Question 7. Is there an aggregate impact of regulations on communities for which the current statutory provisions for affordability do not account?

Response. One way to focus on an aggregate impact of the cost of implementing regulations for affordability is to do a basic calculation factoring a one-to-two percent cost for implementing each existing or new regulatory requirement. If there were 35 requirements, it would not be unreasonable to assume that a minimum of one percent of the total operations and maintenance budget at a facility must be targeted to implement each. A small community, trying to assure effective service delivery to consumers would have to factor in about 35–40 percent of its operating budget would be targeted for the necessary monitoring, laboratory analysis, data collection, and implementation of the regulatory requirements. Is it affordable? Could be if there is an adequate user fee to cover basic operating costs, but is there a more affordable alternative? Affordability is not a factor in the current regimen of statutory provisions, however, during implementation of the regulations it is an enormous consideration for small rural, communities.

Question 8. How large do you estimate the needs of small communities are for developing technical and financial expertise?

Response. The need for technical and financial expertise is enormous. We estimate that approximately 95 percent of the drinking water systems in Idaho, serving under 1,000 people, lack the technical and financial expertise to prepare basic planning documents. There needs to be a new definition of "small community." The current definition of 2,500 population or less does not address the unique situations of small rural communities of 1,000 or less. If a new definition were in place, the needs of small communities of 1,000 or less would be better served and States would then have an increased capacity to provide the specific and necessary expertise to serve the technical and financial needs of these communities.

Question 9. How do you think a change in the community size definition will change needs assessment?

Response. While I advocate for changing the community size definition for reasons cited above, it also needs to be pointed out that in Idaho we try to assess the needs of all systems regardless of size. This will not change the needs assessment process.

A change in the community size definition would allow States to focus on the special and unique needs of small rural communities in a manner consistent with capacity building and responsiveness to particular small community need.

STATEMENT OF THE WATER ENVIRONMENT FEDERATION

Mr. Chairman and members of the subcommittee, the Water Environment Federation ("WEF" or "Federation") appreciates the opportunity to provide this statement for the record on the crucial national issue of clean and safe water infrastructure needs as reflected in the chairman's opening statement.[1]

Four years ago WEF President Billy Turner appeared before the House Water Resources and Environment Subcommittee to describe the vast needs our nation faces regarding new commitments and requirements while maintaining and upgrading our wastewater treatment and transport infrastructure. During his testimony, which provided the first comprehensive discussion of the national water and wastewater infrastructure crisis, Mr. Turner called for a national goal of building—and maintaining—a wastewater and water supply infrastructure that adequately protects public health and the environment. WEF believed then and continues to believe today, that the enormous gains our nation has made in meeting our clean and safe water goals will soon be jeopardy if the Federal Government fails to strengthen its commitment to clean and safe water infrastructure.[2]

The challenges that local communities face in meeting ever increasing clean water needs continue to grow and are well documented by the WINow Report and the EPA gap study. We as a nation can no longer wait to address these water infrastructure challenges. It is vital that the Federal Government play a stronger role in assisting communities to meet new requirements as well as rehabilitation of aging systems. This Federal role must include increased funding, including grants and loans, at a level that is reflective of the national commitment to clean and safe water. Many issues arise as a result of a significantly enhanced Federal role for water and wastewater infrastructure and this statement will address some of the more frequently asked questions.

Question 1. Are Reported Needs the Result of New Regulatory Requirements or the Need to Replace Aging Infrastructure?

Response. The needs reported by the draft EPA gap study and the Water Infrastructure Network ("WIN") in the 2000 and 2001 WIN reports result from new requirements and the need to replace and rehabilitate infrastructure which were not quantified when Congress last reauthorized the Clean Water Act in 1987.[3]

New requirements in this case mean new regulations or policies such as for combined sewer overflows, biosolids, and such water quality initiatives as the Great Lakes. Additionally, it means new or revised water quality standards and treatment requirements adopted by States and approved by EPA under the Act or new treatment facilities needed to comply with water quality standards exceeding secondary wastewater treatment. It also reflects compliance actions by NPDES permitting authorities which have preceded the issuance of emerging regulations or policies for discharges from separate systems during wet weather events. Additionally, EPA is issuing new guidance on nutrients and other constituents and is proceeding to comply with court orders requiring total maximum daily load (TMDL) allocation which will have major fiscal impacts as they are implemented.

Drinking water costs from regulatory developments are also dramatic owing to the need for reliable facilities to protect public health, continuing additions of maximum contaminant levels for drinking water pollutants, and the costs associated with the protection of drinking water sources.

---

[1] The Water Environment Federation is a not-for-profit technical and educational organization with members from varied disciplines who work toward the WEF vision of preservation and enhancement of the global water environment. The WEF network includes more than 100,000 water quality professionals from 77 Member Associations in 31 countries.

[2] See, generally, EPA Progress in Water Quality, June 2000.

[3] WEF has been active over the years in urging a renewed Federal commitment to meet future wastewater and water infrastructure challenges. In 1999 the Association of Metropolitan Sewerage Agencies and WEF released the "Cost of Clean" identifying major total capital unmet needs over the next 20 years. In 2000, WEF, as part of the WIN coalition of drinking water, wastewater, municipal and State government, engineering and environmental groups called the Water Infrastructure Network (WIN), released the "Clean and Safe Water for the 21st Century" report which estimates a $23 billion a year funding gap between current investments in infrastructure and the investments needed over the next 20 years to meet Clean Water and Safe Drinking Water Act requirements. In February 2001, WIN released "Water Infrastructure Now", a series of detailed recommendations to Congress on how to close the infrastructure gap.

Aging water and wastewater infrastructure is occurring in three waves: infrastructure constructed (1) at the end of the 19th Century with a useful life of approximately 100 years, (2) following World War I with a useful life of approximately 70 years, and (3) after World War II with a useful life of approximately 50 years. Additionally, facilities constructed during the 1970's and 1980's will need some updating as the decade proceeds.

The cost impact of these regulatory developments and aging were not, and probably could not have been known in 1985 and 1986, when municipalities were completing basic secondary treatment facilities.

Question 2. Why Aren't These Needs Being Met by Existing Financing Mechanisms? Are Water and Wastewater Utilities Unable to Raise Rates or Incur More Debt? Is There an Affordability Problem Everywhere?

Response. The magnitude of regulatory driven needs converging with the magnitude aging infrastructure is a principal basis for why a strengthened Federal commitment is needed. Local governments generally are unable to meet the entire cost of these converging needs for two basic reasons. Primarily, local governments have been paying the overwhelming share—over 90 percent—of construction costs since the beginning of loans under the clean water State revolving funding program. Second, costs of other local government infrastructure and essential program priorities, some resulting from Federal law, have increased.

Because of these wide ranging and converging needs, it can be said that affordability is a national problem. The true local impact of this problem is manifested on a site-by-site basis given the mix of water and wastewater system types, pollutants to be removed, ability to absorb rate increases, other infrastructure needs, and fiscal condition. All ratepayers regardless of location should benefit from Federal funding. No community should be left behind. Local governments are doing their share and have made and will continue to make enormous efforts to address the affordability issue. Here are two examples.

A. Strengthening Local Utility Competitiveness.—What is clear, and what is already accounted for in the WIN cost reporting is that local governments have been, and can be expected to continue, reengineering their utility management to bring significant operational cost savings to provide cost-effectively serve customers and meet competitive challenges. Since the middle of the last decade, WEF and the Water Environment Research Foundation (WERF) have implemented major programs to assist continuous improvement in water and wastewater utility management.

Improvements in local utility management including mergers and consolidations continue to be driven by overall costs, the need to better serve customers, and economies of scale and other market forces. Public utilities have an inherent customer advantage in that the are exempt from Federal income taxes and enjoy financing advantages precisely because they have the inherent stability and the public interest to provide for public health and environmental protection. These public programs and market forces will continue. The Federal Government should strongly resist regulatory mandates favoring private for profit entities and should recognize those utilities which are excelling in providing cost-effective customer service through incentives.

B. Technology Advancements.—The 2001 WIN report also takes account of improvements in technology for more cost-effective treatment, conveyance and management. During the past decade, the Congress through the Agency's annual appropriation bill has supported grant funding of some projects developing or demonstrating better science and technology recognizing the nationwide benefits of such projects. Primarily, however, national technology advancements have not benefited from the level of Federal funding provided under the Clean Water Act in the 1970's and 1980's. WINow includes suggestions for renewing that level of effort in cooperation with water and wastewater utilities.

Question 3. Why Aren't Existing Sources of Federal and State Assistance Helping Utilities Close the Gap?

Response. Existing sources of Federal assistance under the Clean Water and Safe Drinking Water Acts are provided in the form of State revolving loans (SRF) which must be repaid by ratepayers. Reduced interest rates are not sufficient to meet the magnitude of regulatory and aging infrastructure needs. Because they are loans with attendant Federal administrative requirements, some local governments find it more advantageous to rely on traditional sources of municipal finance.

Additionally, States are reluctant to provide deeply reduced, zero or negative interest rates because such "grant equivalents" reduce the ability of State revolving funds to obtain adequate repayments to assure that SRFs actually revolve. It is critical here to note that infrastructure grants are contracts between the Federal Government and local government recipients. The Congress provides funding and the

local and State governments are obligated to use that funding to achieve national goals and commitments such as for adequate highway and transit systems, and safe and adequate airports. These goals and benefits signify that grants are not a gift because gifts create no obligation on the part of the person or entity receiving the gift. The Federal grant share represents the value of the improved infrastructure to national goals and commitments.

In addition, grants leverage greater State and local commitments. Federal grant funding is appropriate and reflects national purposes determined by Congress, in this case—achievement of clean and safe water. Construction grants provide the financial, and policy, incentive to local governments to achieve this national goal. In other words, grants leverage the expenditure of local utility rate revenues by demonstrating that if the local matching share is not provided, the community will lose the Federal grant amount provided in furtherance of the national goal. The national policy basis or benefits fundamentally underlying grant funding include:

- To assure that major levels of water and wastewater infrastructure construction move forward more quickly in response to a national goal;
- Increases in local fees are more likely to be accepted by ratepayers and the public if the failure to raise local funds would mean the loss of Federal grant funds;
- The size of the clean and safe water infrastructure gap exceeds local resources to repay traditional bond financing or federally funded loans;
- To provide flexibility to State administration of a comprehensive funding program and to avoid reduction in the corpus of revolving loan fund programs through grant equivalents through reduced, zero or negative interest;
- To increase knowledge of the effectiveness and value of water and wastewater systems investments;
- To support innovation, stability and predictability of funding;
- To maximize the benefits of clean and safe water to localities, regions, States and the Nation as a whole; and
- To provide fairness and equity of cost allocation and revenue generation across the national economy.

Finally, because grants are ultimately provided by the Congress they are a much stronger demonstration of national leadership.

Question 4. Why Are EPA's Estimates of Infrastructure Needs Different From Estimates Advanced by the Water Infrastructure Network and Other Groups that Represent Water and Wastewater Utilities?

Response. The various estimates indicate that the overall magnitude of clean and safe water needs for regulatory requirements and to rehabilitate aging infrastructure is significant and to a level which supports a stronger Federal funding commitment to this national goal. The traditional EPA Needs Surveys for wastewater and drinking water include actual documented costs eligible for Federal loans which are known to States and EPA, plus some modeled costs for wet weather purposes. The EPA clean water Needs Survey does not include the full level of stormwater management costs.

In addition, we understand that EPA is preparing an estimate of rural nonpoint source needs to install best management practices that is exceeded by clean and safe water infrastructure estimates by up to a factor of ten. This information is not included in the WIN report on core infrastructure needs and more information on nonpoint source is needed.

The WIN report and the draft EPA gap study include cost estimates that are very similar in level. WEF will to continue to work with WIN, the Congress, the Congressional Budget Office, and other stakeholders to determine a more precise number for the water and wastewater infrastructure need. However, time is of the essence, and all stakeholders agree the gap is large and is growing and needs to be addressed as a priority. WEF believes the WINow report is the best data available on the gap between what is being spent on water and wastewater needs and what needs to be spent over the next 20 years to protect public health and the environment. The report answers three basic questions regarding how Congress can provide a long term, sustainable, and reliable source of funding for clean and safe water. WEF strongly endorses the WINow recommendations and we briefly summarize these recommendations below.

A. How Much Should Be Funded by Congress? $57 Billion in new authorizations over the next 5 years is needed to jumpstart the safe drinking water and safe drinking water programs which have seen a drastic reduction in Federal commitment over the past 20 years. After the initial 5 year infusion of Federal financial assistance, WIN recommends Congress establish a commission to evaluate alternatives and recommend funding beyond 2007.

B. What Should Be Funded? Core water and wastewater needs should be funded including drinking water and wastewater treatment facilities, and wet weather collection and treatment. In addition water and wastewater systems should be eligible for assistance whether they are publicly- or privately-owned and/or operated as long as they provide water or wastewater services that are generally available to the public.

C. How Will the Program Be Administered? States should maintain their primary role in administering the next generation of water and wastewater financing programs. Building on the current SRFs, States would establish new programs of State water and wastewater infrastructure financing authorities (WWIFA's) to offer grants, loans, loan subsidies, and other financial assistance to public or private system operators.

Thank you for the opportunity to provide this statement to the committee. WEF and its members are prepared to further assist the Congress in addressing the water and wastewater infrastructure gap. We look forward to building on the successful local, State, and Federal partnership that has achieved significant gains in public health and the environment.

TESTIMONY OF DAVID B. STRUHS, SECRETARY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. Chairman, Senator Graham, members of the Committee: Thank you for the invitation to share some thoughts as you deliberate future Federal action to meet America's water resource needs.

While there will always be disagreement over how to estimate our water infrastructure needs and who should pay the bills, there is little disagreement over two things: (1) that water resources are critical to economic development, national security, public health and quality of life; and, (2) the 50 States play a central role in making sure the resources are protected and the infrastructure gets built.

You deserve much credit for reaching out to states and other interests as you formulate the federal government's role.

Florida, like every other jurisdiction, is eager to ensure that if additional Federal resources become available in the future, that we get a fair share.

But at this early stage of discussion, we are also eager to reflect on the larger questions of exactly what is the appropriate role of government in building water infrastructure.

Florida, at this moment in history, provides an important object lesson for the nation. We are in the worst drought in our state's history: a 1-in-200 year experience that is drying up rivers, pushing family-owned businesses to the edge of bankruptcy, burning nearly 100,000 acres, and mobilizing an unprecedented strategy to secure emergency water supplies. If ever there was a political imperative for expanded government investments in new water supply infrastructure, this is it. Yet wise men and women are counseling caution.

Ironically, at this same moment, with the tremendous leadership of the Congress and particularly this Committee, we have launched the restoration of America's Everglades: an environmentally sustainable water resource plan that will help save 60 endangered species and will quench the thirst of 12 million Americans who are expected to call South Florida home.

The lesson to be drawn from these two experiences is plain: Government must take the long view, not the short view, or risk the fate of unintended consequences. In the area of water, this means understanding the difference between water resources and water supply.

It is appropriate and necessary for government to continue identifying, securing, protecting and conserving the public's water resources. They are a classic example of public commons demanding governmental stewardship. Government must care for our water resources—aquifers, rivers and lakes—because, among other reasons, they are our current and future public water supplies. The Everglades are an example of this on a grand scale. There are many reasons to restore the Everglades. The fact that the project will provide a long term, sustainable future water supply is among them. But the federal government is not, as part of the plan, paying for the pumps and pipes that will provide water supply service made available as a result of Everglades restoration.

As we move from the stewardship of the public's common water resources and towards the development of water supplies and the provision of water service for individual citizens, government's role becomes less clear and eventually counterproductive.

Witness the drought.

Drought drives home the value of a robust water supply infrastructure. So too does it drive home the value of accurate price signals that lead to adjustments in demand. It is difficult to find any drought situation that has not been made worse by a failure on both counts.

The danger is that if government uses revenues from its general taxing authority to subsidize the expansion of a more robust water supply infrastructure, it risks making the next drought even more profound because price signals are further distorted while consumption has grown. This is truly unfortunate, because as critical as water is to life, demand for water is demonstrably elastic. There are a multitude of cost-effective opportunities for increased efficiency and substitution.

Government should be a good steward of the public's water commons. Everyone benefits from and everyone should share in the cost of this stewardship. Protecting watersheds for current and future public water supplies is an appropriate use of generally collected tax revenues.

The investments that are necessary to collect, store, treat and distribute a water supply are best made by the actual water users, and how much they pay should be determined, at least in part, on how much they use.

Sound public policy would lower taxes collected for subsidizing water supply development and rationalize utility bills to more accurately reflect the cost of water service. I do not know anyone who, if given a choice, would rather pay a tax than a fee that he or she could control by adjusting his or her own behavior. This is also clearly the environmentally preferable choice, because in the end environmentalism is about the efficient use of natural resources.

If you accept the basic premise of this analysis, there are some simple steps that would help ensure that any new federal commitments to water move us closer to the pro-environment and pro-market vision many of us share.

First, focus on protecting and restoring basic water resources, not on supply system infrastructure.

Second, if there is a decision to apply some resources to subsidize supply system infrastructure, the money should be loaned not granted. Loans are more likely to be made transparent to the water consumer.

Third, reward entities that have conservation-based water rate schedules.

Fourth, reward entities that close the loop and recycle water resources. The reuse of advance-treated domestic effluent for irrigation and other nonpotable uses must become a bigger part of our water future.

Fifth, recognize and support unconventional techniques for water resource management (e.g., aquifer storage recovery, engineered wetlands) as appropriate in certain circumstances.

These steps are all aimed at creating sound public water policies that are fair and transparent to the taxpayer and water consumer and are good for the environment.

I genuinely appreciate the invitation to share these thoughts with this important committee today and hope you will find it helpful. I would be happy to answer any questions you may have.

RESPONSES BY DAVID B. STRUHS TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. You testified that taxpayer dollars should be spent on the protection and restoration of water resources instead of supply system infrastructure. Additionally, any subsidies that do exist for infrastructure should be in the form of loans. Do you believe that there are any instances when grants may be preferable to loans, such as for small, rural community water systems?

Response. It is always possible to identify a circumstance where an argument for grants can be made. However that determination, from an economic point of view, should be based solely on the individual consumer's inability to pay for water service. It should not be based on the type of community in which the consumer resides. Recognizing that different members of a community have different abilities to pay, if a grant is provided, its subsidy effect should be targeted through the billing system. Factors such as the size of the community or the relative urban or rural character of that community are not appropriate screens.

Once a decision is made to offer grants as opposed to loans, the political challenge lies in determining where government draws the line. The pressure becomes great to make more, not fewer, communities eligible. You are then left with the dilemma of either increasing the grant pool or worse, providing smaller grants to community projects which results in water infrastructure projects started but not completed. This last scenario represents perhaps the least desirable allocation of capitol resources.

RESPONSES BY DAVID B. STRUHS TO ADDITIONAL QUESTIONS FROM SENATOR GRAHAM

Question 1. You mentioned water supply in your testimony. Can you describe your view of the Federal Government's role in water supply as a part of addressing the nation's infrastructure needs?

Response. Government must take the long view, not the short view, or risk the fate of unintended consequences. In the area of water, this means understanding the difference between water resources and water supply.

It is appropriate and necessary for government to continue identifying, securing, protecting and conserving the public's water resources. These resources are an example of public commons demanding governmental stewardship. Everyone benefits from and everyone should share in the cost of this stewardship. Protecting watersheds for current and future public water supplies is an appropriate use of generally collected tax revenues because, among other reasons, they are our current and future public water supplies. Ecosystem restoration projects, for example, may provide long term, sustainable future water supply.

Government's role becomes less clear, and possibly counterproductive, when you move from the stewardship of the public's common water resources and into the arena of development of water supplies and the provision of water service for individual citizens. Government subsidization of water supply can lead to inaccurate price signals, distorting the true cost of water for consumers. This is basic economics. If people do not pay the true cost of a good or service, they are not likely to adjust their demand for that good or service. We cannot expect consumers to conserve water when the cost gives the impression it is an inexhaustible resource.

STATEMENT OF PAUL D. SCHWARTZ, NATIONAL POLICY COORDINTOR, CLEAN WATER ACTION

Good morning Chairman Crapo, Ranking Member Graham and other distinguished members of the Subcommittee on Fisheries, Wildlife, and Water. My name is Paul Schwartz and it is my pleasure to be testifying before you today on the topic of "Water Infrastructure Needs." I am the National Policy Coordinator of Clean Water Action, a national organization working for clean, safe and affordable water, prevention of health-threatening pollution; creation of environmentally safe jobs and businesses; and empowerment of people to make democracy work. Clean Water Action organizes strong grassroots groups, coalitions and campaigns to protect our environment, health, economic well-being and community quality of life. Additionally, I serve as the Chair of the Clean Water Network's Funding Workgroup and on the Steering Committee of the Campaign for Safe and Affordable Drinking Water.

Chairman Crapo, thank you for holding this oversight hearing today. The subcommittee's early focus in this 107th session of Congress on water infrastructure needs is timely and of vital importance to the nation's environment, economy and public health. This hearing along with tomorrow's focus on this topic in the U.S. House signals the importance Congress places in moving the discussion forward. This hearing is a crucial first step toward securing more dollars for critical drinking water and wastewater infrastructure needs.

THREE DECADES OF FEDERAL WATER INVESTMENTS HAVE MADE A DIFFERENCE

Almost twenty-nine years ago Congress put a down payment on cleaning up America's water resources with the passage of the Clean Water Act's sewage construction grants program. Staunching the flow of direct discharges of untreated sewage into our nation's rivers, lakes and streams has been one of the best investments the American people ever made. The Federal grants program, and now the Clean Water State Revolving Fund (CWSRF), have been integral to making the Clean Water Act one of the most successful laws on the books. Almost thirty years of investment, have been at the center of a remarkable water quality turn around. In 1972, it was estimated that American's could safely swim or fish in only 1/3 of our nation's waters. By the twenty-fifth anniversary of the Clean Water Act, the Environmental Protection Agency estimated that the simple act of swimming or fishing could be done with a threat to our health in sixty percent of our waters.

Twenty-seven years ago Congress recognized that the nation's lakes, rivers and underground waters served a critical use not adequately addressed in the Clean Water Act—as a source of potable drinking water. In passing the Safe Drinking Water Act in 1974, Congress set up a framework which began to address key public health issues related to polluted drinking water sources. Five years ago, in 1996, Congress made a great stride forward in protecting drinking water by establishing for the first time a Federal pool of money to help our States and local communities

meet the burden of delivering clean, safe, and affordable drinking water. With the establishment of the Drinking Water State Revolving Fund (DWSRF), Congress recognized a Federal responsibility to partner with ratepayers and local and State governments to meet the increasing challenges and needs in the drinking water arena. Millions of citizens have been touched by this act of Federal support and are now drinking cleaner more health protective, and affordable water as a result of this new program.

THE FUNDING GAP IS LARGE; NEW FEDERAL INVESTMENTS ARE NEEDED

We as a nation are proud of the progress that has been made in protecting America's water resources and public health. In the main we are going in the right direction. But there are some bumps on the road and there is more work to be done. Clean Water Action joined with the Water Infrastructure Network (WIN) this February in endorsing the call for Congress to set aside an additional $57 billion dollars over the next 5 years. Our alliance with Association of Metropolitan Sewerage Agencies (AMSA), the National Rural Water Association (NRWA) and the Western Coalition of Arid States (WestCAS) is not one that we entered into easily. Over the years Clean Water Action, AMSA and NRWA have found ourselves on opposite sides of critical Clean Water Act and Safe Drinking Water Act issues. This year we find ourselves in disagreeing with WestCAS over how health protective the arsenic standard will be. But despite these differences, what brings us together today is that, we all agree that there is a huge gap between the total dollars being raised and spent, and the investments that are needed.

Congress has heard and will continue to hear a steady, almost unremitting drumbeat of information about the funding gap between drinking water and wastewater investment needs and available resources. The specific overall dollar figure may vary somewhat depending on the specific frame, model or method used to generate the numbers, but all agree that without significant new investment, we face some sobering environmental, public health and economic issues. Clean Water Action has taken a careful look at the WIN assumptions, the new 1999 USEPA "Drinking Water Infrastructure Survey," various other EPA white papers, and has concluded that however the number is sliced up, there exists a yawning chasm, a palpable gap between all funding sources and the serious commitment of resources that will be needed to deal with core water infrastructure needs.

It is Clean Water Action's position that the yearly $3 billion currently in the Drinking Water SRF and Clean Water SRF accounts for the States each year (combined with State matches, leveraging, mounting built State SRF reserves, and other sources of Federal water infrastructure funding), is significant—but is unfortunately an order of magnitude too low. For a variety of reasons there has been an under investment in water infrastructure at all levels of government and by our private markets as well. All stakeholders stipulate to this simple fact. We need Congress to approach its investment in water infrastructure and protecting public health with as much enthusiasm and commitment as Congress has provided for our other important infrastructure, our bridges and highways and airports. Clean Water Action calls on Congress to fully fund the additional $57 billion dollar proposal for the next 5 years and to begin the process of looking into solutions for the long-term.

Its worth noting that important organizations in addition to those backing the WIN report (the H2O Coalition, ASWIPCA, ASDWA and others) agree with its fundamental premise—the need for more investment in critical infrastructure funding. One way or another, ratepayers, taxpayers, and large users of water resources and water infrastructure will have to pay more, a lot more over time. Investing now will save money and yield immediate economic and health benefits.

The key question is how do we act in a way that invokes, to the maximum extent possible, equity, affordability, and sustainability while meeting the triune goals of preserving the environment, enhancing the public's health and laying a new foundation for broad economic prosperity. How Congress disposes of this question is why Clean Water Action is at this table. We do not want this process to devolve into narrow interests fighting over turf. We are concerned about the possibility that this process might be used as a way to revisit important but contentious Clean Water Act and Safe Drinking Water Act reauthorization issues. Our approach, and we hope your approach, is to stick narrowly to the issues before us—to define what the needs are and to figure out how best we can collectively structure a new water infrastructure funding paradigm which meets the criteria and goals enumerated in the attached statement of Principles.

Clean Water Action along with its partners in the Campaign for Safe and Affordable Drinking Water and the Clean Water Network has worked out a set of common sense principles and criteria for water infrastructure funding. It is our belief that

if these principles and criteria are judiciously applied to any approach that we will have set in motion a process that will bring our water infrastructure from its mostly pre-WWI technology and state of general decay into the 21st century. We have a lot of catching up to do.

GIVE STATES FLEXIBILITY TO INVEST IN GREEN INFRASTRUCTURE AS WELL AS TRADITIONAL INFRASTRUCTURE NEEDS

We strongly urge a focus by Congress on funding pressing current core needs. Heretofore, 98 percent of water infrastructure funding has gone to brick and mortar projects. But we also need to support those pollution prevention that enhance the performance and cost effectiveness of needed traditional infrastructure investments. We need to give the States the flexibility to invest in pollution prevention as well as basic infrastructure needs. These core infrastructure needs can be mitigated by putting an emphasis on funding a combination of cost-effective, non-structural, preventive projects (green infrastructure), with innovative and alternative appropriate engineering strategies. When joined with needed modernization of old, decaying and out of date treatment plants, and collection and distribution systems we will finally lay the foundation that will forestall the need for even more costly approaches and investments in the near future.

DOLLARS FOR CLEANUP, NOT SPRAWL DEVELOPMENT OR ENVIRONMENTALLY DESTRUCTIVE PROJECTS

While Clean Water Action generally supports funding to address existing wastewater and drinking water needs we oppose using scarce Federal dollars to subsidize systems which support new sprawl development. Core water infrastructure, most of which were built using taxpayer funds, are now in need of rehabilitation, replacement and repair. As we have said before, this is an investment in the future worth making to ensure that our lakes and streams are safe and support revitalization of our waterfronts and to provide safe drinking water throughout America. On the other hand funding should not be used to subsidize new systems (unless it can be shown that the new system would simply serve existing populations—new capacity should not be subsidized).

In addition environmentally sound principles for project design and siting should be observed. In many cases State NEPA—like procedures are not followed or do not include any real review by the public. With little oversight by USEPA and almost no public involvement in the intended use plans (IUPs) there is very little indication whether or not Federal dollars are supporting real public health, compliance or environmental needs. Effective public participation is the best way to ensure that environmental and fiscally sound choices are made. Ensuring such participation is the best way for Congress to protect and build support for its clean safe water investment.

RATEPAYER AND TAXPAYER PROTECTIONS SUPPORTED BY FISCALLY CONSERVATIVE APPROACHES AND UTILIZING MARKET-BASED INCENTIVES

Clean Water Action supports five fiscally conservative spending parameters which will in the end constrain the Federal dollars to flow most efficiently to solutions, instead of creating additional and more costly problems. We support:

1. Providing flexibility and incentives to States/communities to invest in green infrastructure solutions that achieve the compatible ends (e.g. source water protections such as land acquisitions, source control water methods of water treatment, such as using rain gardens, stream buffers and water conservation and reuse) and make core "hardware" investments more cost-effective;

2. Fiscal accountability through the integration of meaningful public comment into priority setting, and clear publicly disseminated national tracking priorities, project purposes and expenditures;

3. Limiting Federal investment to those facilities that have the financial, technical and managerial capacity to ensure compliance. Facilities which are in significant non-compliance, should only be allowed funding to restructure or consolidate to achieve compliance or where consolidation or restructuring is impossible, if the facility has made a good faith effort to comply and the facility is adhering to an enforceable compliance schedule, and the funding is necessary to avoid making water or sewer unaffordable to a significant portion of the facility's retail customers;

4. Requiring a local match for any grant program that is layered on top of the existing SRF accounts. There is no need to encourage "gold plating" of projects when money is so scarce. "Free" money without a buy in from the local community is a prescription for throwing money away. The percentage of the required local match would be tied to an affordability index;

5. Protecting taxpayers and ratepayers by ensuring that costs are fairly apportioned between all users of water resources, not just residential consumers. There is already a powerful mechanism in place for making market forces part of the equation for getting cleaner and safer water: fees charged for Federal permits that allow discharges into treatment plants and waterways; but, the potential is barely tapped. Permits are free or almost free in many cases, but a simple switch to volume/toxicity based fees could yield billions in revenue (that could be used to reduce the amounts taxpayers must pay) and provided a market incentives for effluent reductions.

One concern which makes Clean Water Action and WIN's call for increased water infrastructure funding very urgent and clearly marked as a Federal concern, is the growing permanence of a two tier water infrastructure picture across the country. Big cities which have lost much of their rate base while their infrastructure grows beyond its useful life and small systems that lack the necessary scale to spread out costs to install or maintain new technologies are threatened to be left behind. Not only are millions of people's health on the line, but the basic economy's of many cities and whole regions of the country are put at risk.

FUND SAFE AND AFFORDABLE WATER FOR SMALL COMMUNITIES

Clean Water Action believes that it should be made mandatory that priority be given to projects that help systems/communities with the greatest need based on affordability criteria. An example of this need can be seen in all the small communities where millions of American's are currently drinking water with significant amounts of arsenic. The conundrum is clear, either we can help these communities with the necessary funding and technical innovation support or we can bury our collective heads in the sand and just shift the standard until we ensure that most communities are in compliance. The fact is that in Fallon, NV, and in small communities like Fallon across the country, no matter how un-health protective the final arsenic standard is set, Fallon will still have to get the arsenic out of its water. That is why Clean Water Action supports efforts such as the Reid/Ensign Small Communities Safe Drinking Water Infrastructure Funding Act, S. 503.

One of the WIN proposals that Clean Water Action is especially delighted by is the call for Congress to authorize $250 million a year to support an Institute of Technology and Management Excellence. The Institute would bring to bear the best thinking regarding cost-effective green infrastructure and promote the development and use of best management practices, innovative technologies to meet drinking water, wet weather, and wastewater goals. Clean Water Action would further recommend that the Institute nurture broad public participation in the development of its research, science and technology and best management practices agenda. Stakeholders beyond the utility community should have an integral role in helping to move this exciting project forward.

As you consider the myriad of policy options and funding levels, know that the American public is fully behind your effort to address this pressing problem. Clean Water Action supports the WIN approach, and is open to addressing your concerns. We are heartened by Senator Voinovich's Clean Water SRF funding bill and by the analogous approach by Reps. Kelly and Tauscher in the House. The emergence of the Water Infrastructure Caucus and the hearings today and tomorrow are most encouraging. Let's keep the bipartisan and interest group comity and pursue water infrastructure solutions that lay the foundation for the next century to come.

Thank you for the opportunity to comment. I would be happy to entertain any question or concern.

ATTACHMENT

CAMPAIGN FOR SAFE AND AFFORDABLE DRINKING WATER & CLEAN WATER NETWORK'S PRINCIPLES AND CRITERIA FOR WATER INFRASTRUCTURE FUNDING BILL

PRINCIPLES

1. *Safe and Affordable Drinking Water.* The public has a right to safe, affordable drinking water, treated and delivered with reliable and safe collection, treatment, and distribution systems.

2. *Safe Water for Swimming, Drinking, and Fishing.* The public has the right at all times to streams, lakes, and beaches that are safe for fishing, swimming, and protected as drinking water sources.

3. *Stop Sewage Pollution.* Raw and inadequately treated sewage should not be dumped into our rivers, lakes, beaches, buildings, or streets. Only sewage that has

been safely treated to secondary treatment standards—and to tertiary treatment standards where needed—should be released.

4. *Right to Know About Water Pollution.* In order to honor our right to know, and to ensure public support for infrastructure improvements, the public should be promptly advised about the nature, location, and extent of every raw sewage discharge into surface or ground water, streets, or buildings, and about contaminants in and threats to our drinking water.

5. *Innovative, Effective Solutions.* Stormwater and sewer control needs can and should be reduced through water conservation, efficiency, and re-use; source control; pollution prevention; low impact development; use of natural systems; and open space preservation.

6. *Control Pollution Sources.* Source control should be the primary means to reduce sewer overflows and contaminated stormwater discharges, but can be complemented, where necessary, by treatment options.

7. *Community Solutions.* The public should be given an opportunity for effective participation in selecting and making funding decisions for local clean and safe water strategies.

8. *Taxpayer and Ratepayer Protection.* The funding for water infrastructure improvements should come from all users of these systems, and from those who cause significant pollution necessitating such infrastructure, not just the taxpayer.

CRITERIA

1. *Improve, Protect, Innovate.* Funding should be only for: (i) improvements in existing drinking water and wastewater infrastructure (treatment, collection, distribution systems); (ii) non-structural protection of source and surface water (buffer zones, easements, water conservation, water reuse, land acquisition for water quality protection, other innovative/alternative source/surface water protection projects that will obviate the need for structural solutions}; or, (iii) innovative or alternative drinking water treatment or protection, sewage treatment, and stormwater management projects.

2. *Dollars for Cleanup, not Sprawl Development or Environmentally Destructive Projects.* Funding should be used to solve existing water problems, not to subsidize new sprawl or cause new environmental harm. This funding should not subsidize new systems (unless it is shown that the new system would simply serve existing populations—new capacity should not be subsidized). In addition, environmentally sound principles for project design and siting should be observed.

3. *Accountability.* The program should assure accountability through the integration of meaningful public comment into priority setting, and clear, publicly disseminated national tracking priorities, project purposes, and expenditures. No funding should be available for facilities that (a) do not have the financial, technical, and managerial capacity to ensure compliance; or (b) are in significant noncompliance, except as noted in #4 below. Existing protections in current law (e.g. SDWA restrictions on funding to states lacking approved programs for operator certification and to assure systems have the financial, technical, and managerial capacity to ensure compliance) should be preserved.

4. *Improvement.* Facilities in significant noncompliance may be funded: (a) to restructure and consolidate the facility to achieve compliance; or (b) where consolidation or restructuring is impossible, if the facility has made a good faith effort to comply, is adhering to an enforceable compliance schedule, and funding is necessary to avoid making water or sewer service unaffordable to a significant portion of the facility's retail customers.

5. *Protect Health, Meet Community Needs, Help Small Systems.* Prioritize funding for projects that: (i) address the most serious risks to health and aquatic environment; (ii) help systems with the greatest need, based on affordability criteria; (iii) help consolidate or restructure small systems with current or anticipated compliance or health/aquatic environmental problems.

For more information please call:

Paul Schwartz, National Policy Coordinator, Clean Water Action (202) 895–0420 ex 105

Nancy Stoner, Clean Water Program, Natural Resources Defense Council (202) 289–2394

Erik Olson, Public Health Program, Natural Resources Defense Council (202) 289–6868

Lynn Thorp, Coordinator, Campaign for Safe and Affordable Drinking Water (202) 895–0420 ex 109

Ed Hopkins, Environmenental Quality Program, Sierra Club (202) 675–7908

STATEMENT OF HARRY T. STEWART, DIRECTOR, NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

Good morning, Mr. Chairman, members of the committee. I am Harry T. Stewart, Director of the Water Division of the New Hampshire Department of Environmental Services. I am here today to present the State of New Hampshire's views on the continuing significant need for Federal support for water supply and wastewater infrastructure funding, with a particular focus on New Hampshire. Thank you for this opportunity.

BACKGROUND AND CONTEXT

Like the rest of the United States, New Hampshire has made great progress over the last thirty years in improving the quality of our surface water, groundwater and drinking water supplies. The cleanup of New Hampshire's rivers is an environmental success story, as we have gone from having one of the nation's ten most polluted rivers to having over 90 percent of the State's waters meeting or exceeding water quality standards. In addition, New Hampshire has achieved full compliance with the Surface Water Treatment Rule of the Safe Drinking Water Act for over 70 municipalities that originally had unfiltered surface water supplies. Unlined landfills, which are a significant source of groundwater and surface water contamination, are being closed systematically on a priority basis. These accomplishments by New Hampshire's municipalities would not have been possible without Federal and State financial assistance. These grants and loans to communities in New Hampshire have included:

- $837 million in wastewater treatment grants. In fact, long after the Federal construction grant program has evolved to the revolving loan program, New Hampshire still provides municipalities with $10 to $12 million per year in grants of 20 to 30 percent for qualifying communities.
- $250 million in State and Federal revolving fund loans have been issued for wastewater system improvements, drinking water supply upgrades and landfill closures.
- $14.7 million in State grants for drinking water supply upgrades for surface water treatment rule compliance.
- $21 million in State grants for landfill closures.
- $1.5 million in 25 percent State matching grants were provided to municipalities for land acquisition to protect current- and future-drinking water sources. This is a new program which was established in 2000.

New Hampshire is the only State with grants and loan programs for improvements to wastewater and drinking water supply systems, source water protection by land acquisition, and landfill closures. We have long recognized that municipal environmental infrastructure upgrades need to be given high priority and considered in an integrated fashion to ensure environmental and public health protection in an affordable manner for our citizens.

We work not only with the U.S. Environmental Protection Agency but also with the U.S. Department of Agriculture's (USDA) Rural Development Program and the Department of Housing and Urban Development's (HUD) Community Block Grant Program, which is administered in New Hampshire by the Office of State Planning, to optimize funding for drinking water and wastewater projects for New Hampshire's communities.

MAJOR CHALLENGES

In spite of all that has been accomplished, New Hampshire still has major challenges that will require State and Federal funding well into the future to upgrade and improve our core infrastructure and improve water quality. These include:

- Aging infrastructure, in two broad categories:
  - First, most of our 85 publicly owned wastewater treatment plants were constructed or upgraded over 20 years ago during the "Federal construction grants" era. The end of the useful life of original equipment is being approached and substantial new investment will be required within the next 10 years.
  - Also, water and wastewater piping systems (portions of which are over 100 years old) are deteriorating in some systems. The limited available local moneys from user fees and taxes invested in water and wastewater infrastructure are used primarily to meet regulatory requirements such as drinking water and water quality standards.

When the core infrastructure is inadequate, new development will move to undeveloped land, remote from urban centers, where onsite water and wastewater dis-

posal is feasible, contributing to "urban sprawl" and increasing potential for water quality degradation in undeveloped areas. "Smart growth" requires water and wastewater piping systems with adequate capacity and integrity for reasonable growth.

• Increasingly more stringent permit limits for wastewater treatment, particularly for organic loading, nutrients, and metals. These improvements are much needed to improve water quality but the cost is a concern for our communities. In New Hampshire, this is a particular concern for small, rural low-income communities located on water quality limited streams (such as in the headwaters of our rivers) that can least afford costly upgrades to advanced wastewater treatment levels.

• Stormwater pollution caused by combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), and stormwater systems. This is a significant, ongoing water quality and compliance concern, principally for New Hampshire's older industrial cities. These projects are large and costly over an extended time period, stressing available local and State resources.

• More stringent drinking water standards. New Hampshire strongly supports drinking water standards which are protective of public health. However, more stringent standards, particularly for naturally occurring contaminants such as arsenic and radon, disproportionately affect very small community public water systems where costs for one or more sophisticated treatment systems must be paid by a small user base, resulting in very high water rates.

• Completing the job of closing New Hampshire's unlined landfills which are a significant source of nonpoint source pollution. Of New Hampshire's 160 unlined municipal landfills, 80 have been properly closed and the other 80 are scheduled for closure over the next 10 years.

• Protection of land areas that contribute to current- and future-drinking water sources from contamination associated with development. Only about 12 percent of these critical areas are now protected. Beginning in 2000, New Hampshire has made this a priority for investment, with a budget of $1.5 million in State grant moneys as a 25 percent match to local contributions to preserve valuable water supplies for future generations.

ESTIMATED NEEDS

In order to meet these challenges and improve our environment and drinking water supplies, well-focused investment of Federal, State, and local resources, targeted at priority needs, is required. New Hampshire's needs are generally described below. In addition, in the addendum to this testimony, five tables are provided that contain detailed information on these needs.

Drinking Water Supply Needs: New Hampshire has identified approximately $500 million in water supply infrastructure needs across categories that include transmission, treatment, storage, and source development. Our most recent water supply needs survey was completed in 2000. About $45 million (9 percent) of this need has been identified as necessary to comply with Safe Drinking Water Act requirements with established deadlines. In addition to the $500 million, estimated costs for compliance with the proposed radon and arsenic rules are $5 to $55 million and $2 to 4 million, respectively, depending on the final rule. The majority (63.5 percent) of the $500 million in water supply needs are for small community water systems serving fewer than 3,300 people where the user base is smaller and user rate impacts tend to be higher for major projects.

Wastewater Needs: Wastewater needs are estimated to be approximately $750 million for treatment, sewers, combined sewer overflows (CSOs), sanitary sewer overflows and landfill closures. Over 60 percent ($460 million) of these needs are to address CSOs in six municipalities whose sewerage systems were constructed over 100 years ago. Wastewater treatment needs are estimated at $98 million and are principally for upgrades to small municipal wastewater treatment plants for NPDES permit compliance.

Total Annual Needs: New Hampshire's annual need is estimated to range from $77.5 million to $155 million per year for a period of investment bracketed between 10 and 20 years. New Hampshire's total long-term public drinking water and wastewater infrastructure needs are estimated at $1.55 billion. Assuming 20 years of uniform investment (to be consistent with the timeframe in the USEPA's 2000 drinking water needs survey), the total need is estimated to be about $77.5 million annually. However, this is probably low because most of the identified needs either exist now, or will exist shortly based on predictable events. Also, as noted above, the costs for compliance with proposed new arsenic and radon standards are not included so the total needs may also be low. To account for the potential for more rapid implementa-

tion, a 10-year construction period has also been included, resulting in an upper range for annual investment of $155 million per year.

AVAILABLE FUNDING SOURCES

Collectively, in 2001, State and Federal sources will provide about $35 million in grants and $40 million in low interest loans to New Hampshire's municipalities for wastewater and drinking water projects. These State and Federal funding sources include:

• Both Wastewater and Drinking Water Supply Grants and Loans from the USEPA and NHDES. These programs are managed by NHDES.

• Rural Development Grants and Loans from the USDA's Rural Development Program.

• HUD Community Development Block Grants. This program is managed by the New Hampshire Office of State Planning. These State and Federal agencies work in close partnership to optimize funding packages for municipalities as projects are identified that require assistance. In particular, special attention is given to communities where drinking water supply and wastewater projects will have significant financial impact on low income households.

MUNICIPAL FUNDING BURDEN

New Hampshire's estimated annual needs and available funding can be summarized as follows:

Infrastructure needs: $77.5 to $155 million per year.

Available grants and loan subsidies: $53.6 million per year.

Required local funding (including SRF loans), $23.9 to $101.4 million per year.

In a typical year, the available State and Federal grants are all used. Additional local funding is provided by either increasing user rates or through property taxes (or both in some cases). In communities with stressed water and sewer rates, upgrades to address noncompliance with drinking water or water quality standards will generally be funded while pipe replacement or upgrade projects will not. Thus, affordability becomes the dominant issue, particularly for small rural communities and water supplies.

In New Hampshire, both median household incomes (MHIs) and water and sewer rates vary widely. The table below serves to illustrate this issue.

Municipality	Median household income (MHI)	Average annual user fees	Water & sewer rates (as percent of MHI)
Berlin	$25,040	$1,083	4.3
Ashland	25,495	1,295	5.1
Jaffrey	32,540	1,012	3.1
Hanover	51,899	454	0.9
Merrimack	52,798	296	0.6

Without Federal and State funding, infrastructure projects in communities such as Ashland, Berlin, and Jaffrey will either further financially stress low income households or discretionary projects will be delayed. As a result of a recent drinking water system upgrade, Ashland has the highest water and sewer rates as a percent of MHI in New Hampshire. Jaffrey is under administrative order to develop and implement a multi-million dollar wastewater treatment plant upgrade to meet stringent water quality limits. Likewise, Berlin also has multimillion dollar drinking water supply infrastructure needs that the city is attempting to address. For both Jaffrey and Berlin, the result will be increased water and sewer rates within a few years, even with 20 to 30 percent State-aid grants and, for Berlin, additional Federal grants that have been received, further stressing the resources of these low income communities.

As illustrated by Ashland, Jaffrey, and Berlin, many New Hampshire communities have a significant problem with high water and sewer rates. In fact, of 80 municipal utilities for which DES has current data on both water and sewer rates, 33 (40 percent) currently have combined water and sewer rates that exceed 2 percent of the MHI. Two percent of MHI is the commonly accepted threshold by State and Federal agencies, including the USDA's Rural Development Program and HUD's Community Development Block Grant Program, at which water and sewer rates are considered excessive.

CONCLUSIONS AND RECOMMENDATIONS

New Hampshire has significant need for additional Federal investment to fund drinking water and wastewater infrastructure improvements. This is important to meet already well-defined needs, both for regulatory compliance and to maintain and improve core infrastructure elements, like aging piping and treatment equipment.

As alternatives are considered at the national level, we strongly recommend that the existing State Revolving Loan Fund program be maintained as the cornerstone of these programs. We recommend that additional funding be provided through the existing SRF program. Construction grants distributed to communities through existing State processes to augment the SRF could also be used effectively if targeted based on State priorities to augment SRF loans for communities with high water and sewer rates.

As we have for years, the New Hampshire Department of Environmental Services is well prepared to establish statewide priorities and needs with input from our communities, and to manage and distribute funds on a priority basis. In New Hampshire, the integration of grant and loan functions with the technical programs has resulted in outstanding performance for decades and will continue to do so into the future. The SRF, coupled with the State-aid grant programs, have worked very well and any additional Federal resources provided would be used effectively to leverage these existing resources. This approach needs to be preserved.

State environmental agencies should also be provided with greater flexibility to establish State-specific criteria for, and address, financial hardship caused by excessively high water and sewer rates. This would help us to develop funding packages that make these improvements more affordable for communities with low income levels and accelerate environmental improvements by facilitating local approvals for funding. This is particularly crucial for communities that are, in a short timeframe, confronted with the need for major upgrades to meet regulatory and core infrastructure requirements for some combination of water supply, wastewater and solid waste facilities, considering that any of these demands alone could stress a low income community.

Finally, there is also a significant gap in the resources for New Hampshire and other States required to manage existing mandates to clean up our water. We continue to face extraordinary demands to manage water quality and water supply programs. As is also expressed in the Environmental Council of States Resolution on the Water Quality GAP Analysis, as the subcommittee considers its options for addressing the water supply and wastewater infrastructure needs, we also urge you to support State program management capacity to meet those needs.

TABLES WITH DETAILED COST ESTIMATES ON NEW HAMPSHIRE'S DRINKING WATER SUPPLY AND WASTEWATER INFRASTRUCTURE NEEDS

Table 1.—New Hampshire's Public Water Supply Program: Total Need by Category

[in millions]

Type of Need	Total Need	Percent Total
Transmission and distribution	$233,2	46.7
Treatment	105.5	21.1
Storage	108.0	21.6
Source	49.4	9.9
Other	3.3	0.7
Total Need	$499.4	100.0

Table 2.—New Hampshire's Public Water Supply Program: Total Need by System Size and Type

[in millions]

System Size	Need	Percent Total
Large community water supplies (CWSs) (serving over 50,000 people)	$44.9	9.0
Medium CWSs (serving 3,301 to 50,000 people)	90.3	18.1
Small CWSs (serving 3,300 and fewer people)	317.1	63.5

Table 2.—New Hampshire's Public Water Supply Program: Total Need by System Size and Type—Continued

[in millions]

System Size	Need	Percent Total
Not-for-profit non-community water supplies	47.1	9.4
Total Need	$499.4	100.0

Table 3.—New Hampshire's Wastewater Programs: Total Need by Category

[$millions]

Type of Need	Total Need	Percent Total
Treatment	$98	9.3
Sewers	150	14.3
Combined sewer overflows	460	43.8
Sanitary sewer overflows	17	1.6
Landfill closures	300	28.6
Other	25	2.4
Total Need	$1,050	100.0

Table 4.—Summary of New Hampshire's Estimated Total Needs and Annual Needs If Distributed over 10 and 20 years

Program	Total Need	Annual needs if distributed over:	
		10 years	20 years
Wastewater	$1,050.0	$105	52.5
Water supply	499.4	50	25
Total	$1,549.4	$155	$77.5

Table 5.—Estimated Annual State and Federal Funding for Drinking Water and Wastewater Infrastructure Projects in New Hampshire for Fiscal Year 2001

[in millions]

Funding Source	Grants	Loans
USEPA/NHDES Wastewater Funding:		
EPA State Revolving Fund Capitalization Grant		$13.3
State Match to Capitalization Grant		2.7
Revolving Loan Repayment Fund		10.5
Wastewater State-Aid Grant (20%–30% Loan Subsidy)[1]	21	
Landfill State-Aid Grants (20%–30% Loan Subsidy)[1]	20	
Subtotal, Wastewater Funding	$41.0	$26.5
USEPA/NHDES Drinking Water Supply Funding:.		
EPA State Revolving Fund Capitalization Grant SRF Loans (with administrative costs deducted) need-based loan relief (up to 30% year)	1.9	4.3
State Match to Capitalization Grant		1.5
Revolving Loan Repayment Fund		1.8
State-Aid Grant (20%-30% Loan Subsidy)—(for Surface Water Treatment Rule compliance only)[1]	2.0	
Source Water Protection Land Grants	1.5	
Subtotal, Drinking Water Funding	5.4	7.6
USDA Rural Development Administration	2.8	5.3
USHUD/NHOSP Community Development Block Grants	1.7	±

Table 5.—Estimated Annual State and Federal Funding for Drinking Water and Wastewater Infrastructure Projects in New Hampshire for Fiscal Year 2001—Continued

[in millions]

Funding Source	Grants	Loans
Total	$53.6	$39.4

[1] The values of "State-Aid Grants" for wastewater and water supply infrastructure improvements and landfill closures are the estimated present values of these loan subsidies. Loan periods vary from 5 to 20 years and the interest rates vary with the loan period. Consequently, the values presented here are an estimate of the present value of future loan subsidies for an assumed portfolio of loans of different maturation periods developed based on the history of these programs.

RESPONSES BY HARRY STEWART TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. What are the primary benefits in maintaining a grant program after the revolving loan programs have reached a full-revolving status.

Response. Excessively high user rates and tax increases for infrastructure projects are a major problem for small low income communities that grants, or equivalent loan discounts, address better than loans. Affordability is a major issue when water and wastewater improvement projects are considered at the local level. For example, loans from the clean water revolving loan funds result in discounts relative to market rates for loans but still require loan principal repayment in full. Grants, or the equivalent in loan subsidies such as discounts on loan principal, result in lower user rates and make these projects more affordable than loans.

Many New Hampshire communities already have a significant problem with high water and sewer rates so new projects are unaffordable. Grants address the needs of these communities better than loans. As noted in my original testimony, in New Hampshire, 40 percent of municipal utilities with water and sewer systems have combined water and sewer rates that exceed 2 percent of the MHI. Two percent of MHI is the commonly accepted threshold by State and Federal agencies, including the USDA's Rural Development Program and HUD's Community Development Block Grant Program, at which water and sewer rates are considered excessive. Grants or discounted loans are one way to diminish these impacts in the long term. The table below provides of New Hampshire communities with high water and sewer user rates:

Municipality	Median household income (MHI)	Average annual user fees	Water & sewer rates (as percent of MHI)
Berlin	$25,040	$1,083	4.3
Ashland	25,495	1,295	5.1
Jaffrey	32,540	1,012	3.1

Without Federal and State funding such as grants or discounted loans, infrastructure projects in these communities financially stress low income households to extraordinary levels.

By making projects more affordable, grants provide encouragement for communities to adequately invest in the core water and wastewater infrastructure beyond the minimum to meet regulatory requirements. Long-term infrastructure investment for nonregulatory purposes is frequently deferred in small low-income communities because of the inability to afford today and in light of other pressing competing priorities for limited resources. Water and wastewater infrastructure projects are driven by two distinct forces: (1) State or Federal regulatory actions and (2) local recognition of the need for improved infrastructure like upgraded piping and water supply storage. Improvements driven by enforcement take priority and virtually always occur. However, nonregulatory core infrastructure improvements frequently don't occur until a near crisis stage, particularly if user rates are already too high. Grants or loan discounts that dampen user rate impacts better improve the chances that these investments will be made before crises occur.

STATEMENT OF ALLEN BIAGGI, NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

Members of the Subcommittee on Fisheries, Wildlife and Water, my name is Allen Biaggi, and I am the Administrator of the Nevada Division of Environmental Protec-

tion. I would like to thank you for allowing me to appear before you this morning to discuss the water and wastewater infrastructure needs of Nevada. I greatly appreciate your interest in bridging the gap that exists between need and fiscal resources in the water programs.

At the outset, I would like to recognize Senator Reid and Senator Ensign for their leadership in addressing these serious public health and economic concerns and thank them for advancing the dialog on the national level.

As the fastest growing and one of the most urbanized States in the country, infrastructure development and maintenance are critical to the health and well being of our citizens and visitors. Obviously, the need is great in Nevada's major urban centers where the majority of this growth is occurring. Paradoxically however, the need is no less important in our rural communities where mining and agriculture are struggling and where funding is often not available for even the most basic wastewater collection and treatment systems or for providing adequate and safe supplies of drinking water.

Nevada has long supported its communities with State supported grant and loan programs for water and wastewater. Like all States, however, we have been asked to undertake significant new responsibilities under the Clean Water and Safe Drinking Water Acts without the resources necessary to carry out those responsibilities. As a result, Federal assistance is vitally important and, frankly, the only way communities can achieve and maintain regulatory compliance to protect public health and maintain and improve environmental quality. Without increased funding at the Federal level, State drinking water and wastewater programs are facing crisis conditions.

Let me give you some examples of the needs within our small State.

On the clean water side of the equation, the State of Nevada has operated a construction grants program or a revolving loan program for over twenty years and has provided greatly needed financial assistance to rural and urban communities alike. For example, the rapidly growing communities of Henderson, Reno and Sparks have taken advantage of these programs and constructed some of the most sophisticated wastewater treatment systems in the country. This has allowed these communities to meet the requirements of the Clean Water Act and maintain and enhance water quality in the Colorado and Truckee Rivers. This provides high quality water for downstream users, wildlife habitat and the sustainability of endangered species. Similarly, small communities in Nevada, such as Silver Springs, have used these funds to meet waste collection and treatment needs and, for the first time, provide this basic service to their citizens while protecting vital groundwater resources.

The problem is that demand for these funds greatly exceeds availability. For the year 2000, we had $152 million dollars in proposed projects submitted to the Clean Water SRF for funding; for 2001, $166 million, and we anticipate similar increases throughout the next decade. Compare this demand with the average available program funding which is a mere $14 million.

In an attempt to overcome this funding gap, we work closely with other entities such as economic development agencies and the U.S. Department of Agriculture's Rural Assistance Program to leverage available funds and meet community needs. Yet dramatic shortfalls still occur. This means that facilities must be funded using alternative sources, or, as most often occurs, projects simply do not happen.

What does this mean for a community?

Sometimes it means that collection lines cannot be built to serve a residential development historically on septic systems where ground water contamination is occurring. Perhaps new treatment units cannot be constructed at a wastewater treatment plant resulting in environmental impairment and the potential for fines and litigation. In some communities it means they cannot meet the needs of growth and must initiate moratoriums or limits on residential and industrial development.

On the drinking water side of the equation, the prospects are not any brighter.

In Nevada, as in the rest of the country, there is a need to refurbish and, in many cases, replace the pipes, lines and treatment facilities that supply our drinking water. Systems age and without the proper care and maintenance reliability is reduced, costs increase and in extreme cases public health impacted. The year 2000 priority list for Nevada through the Drinking Water Revolving Loan program showed that over three quarters of a million dollars was needed to address acute health concerns associated with community water systems. An additional $35.8 million is needed to address chronic concerns and $94.8 million for system rehabilitation.

Add to this the ever-increasing demands of the regulatory environment. In the next few years we can expect new Federal rules dealing with ground water disinfection, enhanced surface water treatment, and modified contaminant monitoring and screening. All with good intentions with the goal of public health in mind, but costly

to implement and maintain. Nationally, it has been estimated that for the drinking water program alone, an $83 million dollar gap exists for States to implement the program and billions per year for system upgrades and repairs.

In closing, we in Nevada intend to do our part to continue to fund programs, to provide grants and loans to our communities large and small, and to advocate for increased support for water and wastewater infrastructure. We will continue to participate in a dialog along with our fellow State representatives and through national associations such as the Environmental Council of the States, Association of State Water Pollution Control Administrators and Association of State Drinking Water Administrators. The challenges are great, the resources limited, and the stakes of public health and environmental quality high. I ask for your careful consideration in making water and drinking water infrastructure funding a national priority.

RESPONSES BY ALLEN BIAGGI TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question. What do you see as a potential solution for the Clean Water and Safe Drinking Water Revolving Fund (SRF) funding gaps? Would you advocate for an expansion of the SRF program?

Response. As outlined in my testimony, a serious funding gap exists between need and resources in both the Drinking Water and Clean Water SRFs.

As federally mandated requirements such as ground water treatment requirements, the arsenic rule and increased monitoring are implemented state and local communities bear the majority of the financial burden. States and local governments simply do not have the resources to meet these mandates. As such, the State of Nevada does advocate for and supports the expansion and increased funding for the SRF programs. By providing additional capitalization, funds, the States can leverage these dollars to assist local communities in meeting their commitments under the Clean Water Act and the Safe Drinking Water Act.

STATEMENT OF HON. BRUCE TOBEY, MAYOR, GLOUCESTER, MA, ON BEHALF OF THE NATIONAL LEAGUE OF CITIES AND THE WATER INFRASTRUCTURE NETWORK

Mr. Chairman, members of the subcommittee: I am Bruce Tobey, Mayor of Gloucester, MA, and a member of the National League of Cities Board of Directors. I am here today to testify on behalf of the 16,000 cities, towns and villages that NLC represents, as well as on behalf of the Water Infrastructure Network[1] (WIN).

I am pleased to be here this morning to discuss the coalition's report—Water Infrastructure NOW—which recommends a major new and revitalized Federal commitment to the nation's drinking water and wastewater infrastructure. It outlines the parameters of a potential Federal response to the $1 trillion gap between investments cities are making in our local infrastructure and the $1 trillion additional needed to assure protection of public health, the environment and our economy over the next generation.

Before outlining for you the parameters of the Report's recommendations, it would seem appropriate to address some fundamental questions: First, why do we have a funding gap of such enormous magnitude; Second, what have local governments been doing to address the issue; and, Finally, why and how should the Federal Government help?

1. WHY IS THERE A WATER INFRASTRUCTURE FUNDING GAP?

A number of factors:

• the simultaneous expiration of the useful life of water infrastructure installed at different times;

---

[1]The Water Infrastructure Network is a coalition of State, local, environmental, professional, and labor organizations comprised of 29 diverse groups including: American Coal Ash Association; American Concrete Pressure Pipe Association; American Consulting Engineers Council; American Public Works Association; American Society of Civil Engineers; American Water Works Association; Associated General Contractors; Association of California Water Agencies; Association of Metropolitan Sewerage Agencies; Association of Metropolitan Water Agencies; California Rebuild America Coalition; Clean Water Action; Environmental and Energy Study Institute; Environmental Business Action Coalition; International Union of Operating Engineers, AFL–CIO; National Association of Counties; National Association of Flood and Stormwater Management Agencies; National Association of Towns and Townships; National League of Cities; National Rural Water Association; National Society of Professional Engineers; National Urban Agriculture Council; Prestressed/Precast Concrete Institute; Rural Community Assistance Program, Inc.; Water Environment Federation; WateReuse Association; and Western Coalition of Arid States.

• population growth;
• implementation of new, more costly, and more complex Federal mandates which, in effect, substitute Federal priorities for local priorities; and,
• a substantial decline in Federal financial participation in meeting wastewater mandates.

The Nation's water infrastructure represents more than a century of investment, substantially funded by local ratepayers. A significant part of the nation's water infrastructure dates from the late 19th century. More recent expansions of these systems took place following the two world wars. All of which means the newest systems are over 50 years old. What is more, the newer the infrastructure, the more likely it is to be deteriorating. Different materials, with increasingly shorter useful lives leave us in the position where 100 year's worth of infrastructure is being exhausted all at once. As a consequence, municipalities now face a confluence of deterioration of the underground pipes, and, in some cases, the treatment facilities, that process the nation's drinking water and sewerage.

Under no circumstances does this denigrate the substantial $96 billion investment and commitment to wastewater made by Federal and State governments in the 1970's and 1980's. Without this assistance we would never have made such incredible progress in cleaning up the nation's waterways. But, EPA cautions that unless we renew our joint commitment to maintaining and upgrading our wastewater facilities, within 15 years our rivers, lakes and streams will again resemble their condition 30 years ago.

Until passage of the 1996 Safe Drinking Water Amendments, local governments have not had a Federal financial commitment to the nation's drinking water systems. The fact that drinking water in the United States is among the safest in the world is a significant tribute to the local ratepayers that have financed these treatment facilities.

Another factor contributing to the current funding gap is that simultaneous with the aging of local water and wastewater infrastructure, has come a significant increase in population. According to the Association of Metropolitan Sewerage Agencies (AMSA), municipal wastewater plants served 68.5 million people in 1990. By 1999, the number had increased to 79 million people. That 10 million person increase occurred in less than one decade. Systems designed and built for the population at the time of their construction are now serving two to three times as many people as their design capacity. In fact, the Clean Water Act of 1972 precluded local governments from anticipating population growth in designing wastewater treatment plants built with Federal financial assistance. The fact that local systems serve significantly more people than their design anticipated contributes to some of their problems—combined sewer overflows, sanitary sewer overflows—all of which need immediate and costly attention if we are to protect public health and the environment. Congress recognized this problem in passing the wet weather provisions in a fiscal 2001 appropriations measure last year, but, we do not yet have any appropriations from this authorization and, in all honesty, the $1.5 billion, 2 year authorization, is only a down payment on problems that alone are expected to cost well over $120 billion.

A third contributing factor is the significant decline in Federal financial assistance for wastewater needs. While once the Federal Government appropriated $2.4 billion for grants cover 75 percent of wastewater needs, we now see instead $1.35 billion annually for repayable loans. Without even considering aging and deteriorating water infrastructure, $1 billion is what one city alone is spending on remediating its sanitary sewer overflows. While Congress recognized, in passing the Safe Drinking Water Act Amendments of 1996, the need to provide similar assistance to municipal drinking water suppliers, this funding is limited in its use for infrastructure repair and, for the most part, is available largely as loans.

Finally, Federal drinking water and wastewater mandates have also played a role in diverting local resources away from local needs and priorities and retargeting them to Federal priorities. When cities do manage to set aside funds to address a critical local water infrastructure need, along comes a new unfunded—and usually costly—Federal mandate that is almost always accompanied by fines and penalties for non-compliance. As you well know, we are not talking about an occasional new Federal requirement. At the local level there seem to be almost daily—or at least weekly—new burdens.

2. WHAT HAVE LOCAL GOVERNMENTS BEEN DOING TO HELP THEMSELVES?

• Local governments—or rather local tax and ratepayers—invest $60 billion annually in our drinking water and wastewater systems. Since the Clean Water Act was adopted in 1972, local governments have invested over $117 billion in their

wastewater infrastructure. We have no similar figures for drinking water investments, but the 20 cities that have been involved in recent asset management studies estimate the average per capita replacement value of their systems at $2,400 per person.

• Local water and sewer utility rates have been increasing to accommodate EPA's estimated annual 6 percent increases in the costs of system operations and maintenance;

• New Federal requirements developed by the Government Accounting Standards Board—on which local government bond ratings are based—are moving local governments toward managing their infrastructure assets in a more businesslike manner; and

• Local governments are applying new management tools to assess and operate their systems more effectively and efficiently.

While the funding allocated to local governments under the Clean Water Act has been of invaluable assistance in helping municipalities meet Federal requirements, Congress should not lose sight of the fact that local governments have invested over $117 billion in our wastewater infrastructure since the early 1970's. Until recently, our drinking water infrastructure was entirely funded by local ratepayers. The deteriorating water infrastructure that needs to be replaced because it has maximized its useful life over the past 50 to 100 years was entirely completed at local expense.

In addition, municipal local rate structures generate the $60 billion annually we invest in maintaining and operating these systems and cover 90 percent of our costs including those for construction. In facing the enormous needs of the future, cities also expect to finance—again through local ratepayers—$1 trillion of the needs for repair, rehabilitation and replacement of the aging and crumbling water infrastructure over the next 20 years.

Municipalities have also been raising their water and sewer rates to accommodate increases in their operating and maintenance costs, which, according to EPA, are rising at 6 percent above inflation annually. Many cities require developers, and subsequently homeowners, to finance the cost of new connections to municipal systems. My city is directly billing homeowners who are newly connected to our wastewater system $20,000 per home—to be paid over the next twenty years—to finance conversion from septic to sewered systems.

In addition, cities are improving their management practices. Local governments will soon be required to comply with new rules promulgated by the Governmental Accounting Standards Board in Statement 34 (GASB 34). These rules will require reporting of a municipality's long-term financial position, quantifying resources and obligations more comprehensively. The information cities will be required to provide will include an evaluation of the condition of our municipal infrastructure. Bond rating services and others will be able to evaluate whether we are "acquiring assets to benefit future fiscal years or if these assets are being used but not replaced."[2] The GASB 34 rule will, at a minimum, encourage local governments to evaluate their infrastructure in a more systematic manner.

Other asset management tools, such as the "Nessie Study" are also being implemented by cities to help identify when pipes and treatment plants were built, how long they can be expected to last, when they will need to be replaced, and what the cost is likely to be for such replacement. More efficient operations are also among the tools used to provide more cost effective operations at the municipal level. As an example, a 1999 AMSA survey[3] documents the reduction in personnel from 6.8 employees per 10,000 population in 1990 to 4.7 in 1999. Some local governments are subjecting their system operations to competitive bidding to affect cost savings and generate new and better efficiencies.

3. WHY SHOULD THE FEDERAL GOVERNMENT HELP?

• A sound infrastructure is the foundation of a sound economy;

• A sound infrastructure is essential to the protection of public health;

• Federal assistance, as demonstrated by the success of the Clean Water Act, is the catalyst that ensures environmental progress;

• Water bodies, like air sheds, do not respect political boundaries;

• Infrastructure assistance will benefit the people whose money created the Federal surplus—another way of giving them the refund they deserve;

---

[2] "GASB 34: What Implementation Means to the Rating Process," Hyman C. Grossman and LaVerne Thomas, Public Finance, p. 2, Sept. 20, 1999, Standard and Poor's.

[3] AMSA 1999 Financial Survey of Municipal Wastewater Management Financing and Trends, Association of Metropolitan Sewerage Agencies.

• At 6 percent, the interest on $2 trillion in debt is $120 billion; the Water Infrastructure Network seeks less than half of the interest avoided in a single year, spread over 5 years.

The Water Infrastructure NOW report made an eloquent case for a renewed Federal financial partnership in water infrastructure. It says:

> The case for Federal investment is compelling. Needs are large and unprecedented; in many locations, local sources cannot be expected to meet this challenge alone; and because waters are shared across local and State boundaries, the benefits of Federal help will accrue to the entire nation. Clean and safe water is no less a national priority than are national defense, an adequate system of interstate highways, or a safe and efficient aviation system. These latter infrastructure programs enjoy sustainable, long-term Federal grant programs; under current policy, water and wastewater infrastructure do not.

In light of the staggering costs of maintaining, operating, rehabilitating, and replacing our water and wastewater system infrastructure to serve our citizens and the environment effectively, the Clean Water Act partnership of the 1970–80's needs to be re-established. It is in our interest as a nation, since virtually all of us live downstream from someone else, for all levels of government to participate in assuring that our drinking water and wastewater infrastructure is sound, reliable, protective of human health and the environment, and affordable.

4. HOW CAN THE FEDERAL GOVERNMENT HELP?

• Re-establish the partnership in the Clean Water Act of 1972 for wastewater infrastructure and establish one for drinking water infrastructure;
• Provide more flexibility in the types of assistance available to municipalities to include grants as well as loans;
• Restore earlier investments in research and technology development;
• Establish a mechanism to develop a long-term and secure financial partnership for water infrastructure needs.

The Water Infrastructure Network has developed and agreed on the outlines of a legislative proposal to revitalize (in the case of wastewater) or enhance (for drinking water) the Federal financial commitment to water infrastructure needs. The proposal recommends a 5-year, $57 billion authorization beginning in fiscal 2003 for loans, grants, loan subsidies and credit assistance for basic water infrastructure needs. These funds would be allocated to States to capitalize State-administered grant and loan programs.

The WIN recommendations propose the creation of Water and Wastewater Infrastructure Financing Authorities (WWIFAs) in each State to replace the two current State Revolving Loan Funds (SRF) for drinking water and clean water. As with the SRFs, States would be required to provide a 20 percent match for any Federal revenues.

While half the funds would be targeted to wastewater and half to drinking water needs, States would have the flexibility to shift up to an additional 15 percent from one purpose to the other. This flexibility would be available so long as such a transfer did not adversely affect any project on the State's priority list that was "ready to go."

WIN recommends that Congress require the new State funding authorities to provide 25 to 50 percent of each year's allocation as grants that would fund up to 55 percent of project costs. Up to 75 percent of project costs would be eligible for grant funding in economically distressed communities. Loans and loan subsidies would include interest rate discounts, zero interest rate loans, principal forgiveness and negative interest rate loans.

The report proposes an additional $4 billion in resources for State governments to help them meet their drinking water and wastewater responsibilities. WIN also recommends funding for development of innovative technology and management techniques to assist local governments in providing clean and safe water more effectively and efficiently in the future.

Finally, the WIN report recommends that Congress "establish a formal process to evaluate alternatives for, and recommend the structure of, a longer-term and sustainable financing approach to meet America's water and wastewater infrastructure needs."

STATEMENT OF JANICE A. BEECHER, PH.D.,[1] BEECHER POLICY RESEARCH, INC., ON BEHALF OF THE H2O COALITION[2]

PURPOSE

Water and wastewater services are vital to the quality of life for citizens across this country. Although estimates of the industries' total infrastructure needs lack precision, there is actually a considerable amount of consensus that the water sector faces its most formidable challenge in terms of replacing and upgrading the aged delivery infrastructure.

The purpose of this testimony is to provide some general "reality checks" in relation to the current national debate over infrastructure funding. The purpose of the analysis is not to critique any particular perspective, but rather to help inform the dialog on these most important issues.

THE INFRASTRUCTURE FUNDING ISSUE

Why is water infrastructure funding on the Policy agenda? The infrastructure needs of the water and wastewater industries have recently taken a prominent place on the policy agenda, even though this issue is not entirely new. The industries are experiencing extraordinary increases in costs and investment needs that are closely related to "people and pipe" demographics—that is, historical patterns of urban development and the age and condition of the physical plant in place. Today, new data, models, and other tools have improved our understanding of this issue. The various stakeholders that recognize these needs have reached a critical mass.

ESTIMATING NEEDS

General agreement exists on the physical condition of the nation's many local water and wastewater systems. A recent report card issued by the American Society of Civil Engineers (ASCE) assigned low grades to most of the nation's various infrastructure sectors, including "Ds" for water and wastewater.

In 1995, studies by the U.S. EPA estimated that water industry assets totaled about $144 billion (Community Water System Survey, inflation-adjusted to 1999), while the estimated 20-year infrastructure need totaled about $151 billion (Needs Survey, inflation-adjusted to 1999). USEPA has recently issued an updated 20-year needs estimate that also is in the range of $151 billion. EPA's estimates focus on needs directly and indirectly associated with Safe Drinking Water Act (SDWA) compliance.

USEPA found that more than half of the total infrastructure need is for transmission and distribution system needs. About 25 percent of the total need is for water treatment facilities. USEPA has also estimated the impact of infrastructure costs on households served by systems of different sizes. These findings demonstrate how scale economies are a key determinant of cost impacts. Smaller water systems are disadvantaged in this regard, although the service populations of small systems vary in their ability to support the cost of service.

In 1998, the American Water Works Association (AWWA) escalated total 20-year water needs to $366, billion (inflation-adjusted to 1999), focusing in particular on distribution system needs. Today, various groups have coalesced around a total 20-year needs estimate in the realm of $1 trillion for the water and wastewater industries.

---

[1] Janice Beecher is an independent policy research consultant specializing in the structure and regulation of the water industry. Dr. Beecher has a Ph.D. in Political Science from Northwestern University and more than fifteen years experience in the field of utility policy, including research positions at Ohio State University and Indiana University. Dr. Beecher works on contract for clients that include the U.S. Environmental Protection Agency, the National Association of Water Companies, the American Water Works Association Research Foundation, and individual public agencies and private companies. Dr. Beecher is a nationally recognized researcher, author, and lecturer in her field and has participated in projects for the World Bank and the National Academy of Sciences.

This testimony is based on an annotated graphic presentation, which is available to interested parties. This presentation was originally presented at the Infrastructure Conference of the American Water Works Association (Orlando, March 2001). The presentation has been expanded, revised, and annotated for distribution.

This testimony is based on Dr. Beecher's independent analysis of the issues. Her participation in this hearing is sponsored by the H2O coalition. The opinions expressed in this presentation are those of the author and do not necessarily represent the views of research clients and sponsors.

[2] The H2O Coalition is made up of the National Association of Water Companies, the National Council for Public-Private Partnerships, and the Water and Wastewater Equipment Manufacturers Association.

The $1 trillion 20-year needs estimate for water and wastewater systems has become a focal point for discussion. The $1 trillion estimate is imprecise. Comprehensive, valid, and reliable technical and financial data on the nation's water and wastewater systems are not readily available. A precise needs estimate is not as important as recognizing the general need. Indeed, devoting scarce analytical resources to estimating the need may not be beneficial. The gap is the projected cumulative shortfall that will result if—and only if—(1) the infrastructure need estimate is accurate and (2) expenditures on infrastructure are not increased. In other words, the gap will materialize only if no action is taken to close it.

UNDERSTANDING THE INFRASTRUCTURE MONSTER

Understanding the "infrastructure monster" is a challenge. It is instructive to look back to earlier research on water utility costs. Evidence from earlier studies suggests an awareness of rising costs and the role of infrastructure replacement in the cost profile:

• The Nation's Public Works: Report on Water Supply (Wade Miller Associates, 1987) forecast annual needs for the water industry in the range of $4.8 to 7.1 billion as follows: 37–49 percent for deferred infrastructure maintenance/replacement; 39–55 percent for meeting demand growth; and 8–13 percent for Safe Drinking Water Act (SDWA) regulatory compliance

• Meeting Water Utility Revenue Requirements (NRRI, 1993) found that "In reality, SDWA compliance costs may pale in comparison to costs associated with infrastructure and demand growth needs."

Some of the larger utility systems also have been aware of the need to step-up the pace of infrastructure replacement. Some of the investor-owned (private) water utilities have been particularly active in this area. As an example, St. Louis County Water prepared detailed assessment of its distribution system in 1994. According to the company:

• "An accelerated replacement program is needed now if we are to avoid excessive customer reaction and a 'crisis' response plan . . .

• The Company's infrastructure replacement program is unique because it does not involve the construction of one extraordinary asset over a long construction cycle (e.g., a nuclear plant), but a multitude of short-cycle construction projects which, taken as a whole, are extraordinary in nature . . .

• The Company believes it is critical and in the public interest . . . [to] synchronize rate recovery with plant completion. (St. Louis County Water Company, 1994).

CAPITAL INTENSITY, AGE, AND DEFERRAL

The water industry is very capital intensive, that is, physical plant or infrastructure is a substantial core cost. Water investments also have very long service lives that benefit generations of customers. Measured as a ratio of utility plant to revenues generated, water utilities are more capital intensive than the natural gas, electric, and telecommunications industries. Water utilities must invest more than $3.50 for every dollar of annual revenues received from customers. Trend data (and projected investments) indicate that the water industry is becoming even more capital intensive.

Industry experts have estimated that pipes were installed in the early part of the century at a cost of about $5 per foot (or less). It is not unusual for replacement costs to total $100 per foot—which is more than double the overall rate of inflation for the same period. The rate of replacement reflects the anticipated life expectancy for a physical investment. A replacement rate of 1 percent implies a life expectancy of 100 years. Lower rates imply a much longer—and unrealistic—life expectancy. Today's pipe materials today are expected to last about 75 years, serving generations of customers.

The rate of pipe breakage increases as infrastructure ages. Breakages lose water, disrupt service, and pose public health risks. Emergency repairs typically are much more costly than planned repairs. The rate of breakage varies with pipe material, which also correlates with the period of installation. Also, as facilities age, the overall percentage of "accounted-for" water declines; that is, more water is lost. The value of water losses has increased with the increased cost of water supplies, treatment, and pumping.

Following its assessment, St. Louis County proposed to pick up the pace of replacement from 5 (.13 percent) to 30 (.8 percent) miles of pipe per year (total pipe miles equal 3,882). But even the accelerated pace of replacement now used by some systems is probably inadequate based on current knowledge about the life expectancy of materials. But making the case for replacement needs to rate regulators and

other oversight bodies (mayors and city councils) has been a significant challenge. Recently, some private utilities have won approval for surcharge mechanisms to help fund a continuous program of replacement, while also mitigating rate shock (the leading example is the Distribution System Improvement Charge, implemented in Pennsylvania).

Although much of the infrastructure challenge is simply age-related, at least part of the current need can be attributed to capital deferrals, or the postponement of infrastructure investments. Because their profit is based on the value of their rate base, investor-owned utilities have less incentive to defer capital investments. Deferrals exacerbate the "gap" problem by increasing the level of need and thereby widening the gap between future expenditure levels and current revenue levels.

A model developed by Australian researchers suggests that the compound effect of infrastructure replacement needs over several decades suggests a "Nessie curve," named after the mythical Loch Ness monster. These cost curves can provide a useful model to help utilities and other stakeholders understand needs at the system level.

In reality, the challenges of prudent capital replacement and "lumpy capacity" are not new to utility economics. Other utility sectors have faced—and are facing—infrastructure needs. However, today's water and wastewater infrastructures were cheap to begin with, were well-subsidized (particularly for wastewater), and have long been depreciated. These factors combine to create an extraordinary pressure on costs. Emerging information systems, planning and management tools, and alternative technologies can help manage the monster—and close the funding gap.

The real risk today may be in the potential for a "responsiveness gap," that is, the gap between awareness and knowledge about an issue or problem and taking the actions necessary to address the problem and avoid or mitigate deleterious effects. However, debate is open as to how to respond to the challenges now faced by the water industry, particularly with respect to private versus public responsibilities.

THE EMERGING MYTHS

The infrastructure funding debate is contributing to a number of emerging myths that may or may not be grounded in reality. The myths suggest:

- That a national crisis is looming.
- That the cost of water services cannot be supported through rates.
- That a funding gap is inevitable.
- That public (that is, Federal) funding solutions are essential.

Some reality checks may help inform the infrastructure funding debate by challenging some of the emerging myths. These reality checks are offered not as criticism of any given perspective, but rather to bring an empirical perspective to the dialog about these important issues.

REALITY CHECK: MUNICIPAL FINANCES

The water and wastewater industries are dominated by municipal ownership. Care should be taken to not over-generalize about municipal finances. However, some of the available data (from the U.S. Census of Governments and elsewhere) may be relevant to the funding debate.

The data indicate that in general, when municipalities provide electricity and natural gas services, revenues exceed total capital and operating expenditures. For water and sewer services (as well as solid waste and transit services), total expenditures exceed revenues. The findings generally suggest that municipal water customers do not cover expenditures through rates and other user charges. The implications of this "gap" are worse if the reported expenditures understate the cost of water service (as is the case with deferrals). Of course, individual water and wastewater systems may have very different financial profiles. The deficit between expenditures and associated revenues is detectable for different types of publicly-owned water systems: municipalities, special districts, counties, and townships. In 1997, for all local governments, the shortfall between revenues and expenditures amounted to $4.18 billion for water services and $2.57 billion for sewer services (Census of Governments).

The deficit between expenditures and user charge revenues is detectable for different types of publicly-owned water systems: municipalities, special districts, counties, and townships. Trend data indicate that the expenditure-revenue gap has been persistent over time, although it has closed somewhat. The difference between expenditures and revenues must be made up through tax revenues and subsidies (grants). The trend data are comparable when displayed on a per-capita basis. Data for individual cities show that aggregate expenditures on water, energy, and transit

utilities exceed user-fee revenues in some cases, but not in others. Similar results can be seen for municipal wastewater systems.

For investor-owned water utilities, operating revenues are provided primarily through cost-based rates charged to customers, and revenues exceed expenditures. An investor-owned water utility must support the full cost of service through rates in order to survive. The difference between revenues and expenditures is used to pay for taxes, depreciation, and the cost of capital. Rates charged by private water utilities are strictly regulated by State public utility commissions, which adhere to accepted systems of accounts and cost-of-service standards of ratemaking. USEPA data (Community Water Systems Survey, 1995) also revealed that privately owned water systems collect more revenues per gallon than publicly owned systems.

Municipal debt can be used for long-term capital investments, such as water treatment facilities. Debt instruments that can be used by the water sector include traditional issuances, as well as private-activity bonds. Debt instruments should not be used for routine maintenance (considered an annual expense). However, debt (short-term and long-term) can be used for major capital replacements to amortize costs over time. Ideally, costs are recovered over the useful life of the capital investment (although in practice shorter time periods are used).

Several interrelated financing issues have contributed to or complicated the infrastructure funding problem. These factors include: unrealistic service-life expectations, extraordinary cost inflation, inadequate accounting and accounting standards, investment deferrals, inadequate user charges, profits and financial reserves for a few systems, and concerns about rates and equity. Accounting standards are the domain of the Governmental Accounting Standards Board (GASB) for governmental utilities and the State public utility commissions for investor-owned utilities.

REALITY CHECK: HOUSEHOLD EXPENDITURES

Household expenditures for utility services and other goods and services provide another relevant perspective. Consumer expenditure data are available from the Consumer Expenditure Survey (Bureau of Labor Statistics). Although the data have limitations, they are useful for general purposes.

Water and public services (sewer and solid waste) account for a relatively small share of the average household utility budget (less than .8 percent of total expenditures), particularly in comparison to electricity (2.4 percent) and telecommunications (2.1 percent). In many respects, water services are a "bargain" to average households. Of course, averages mask relevant variations and actual expenditures are affected by many factors. Over time, average household expenditures for utilities have climbed, but expenditures for water and other public services have retained their relative position. The percentage of household income and expenditures devoted to utilities has actually declined somewhat with time (during the period between 1984 and 1999), although the share for water and other public services has increased slightly.

On average, a four-person household spends about the same amount each year on cable television and tobacco products as on water services. Americans have shown a tremendous willingness to pay for advanced communications and entertainment technologies, including cellular phones ($41.24 per month), cable television ($28.92 per month), and internet services ($21.95 per month). For many U.S. households, the expenditures for these more discretionary services are greater than for water services. It is noteworthy that the nation's $80 billion cellular telephony infrastructure has been entirely supported by private providers who collect fees from users.

REALITY CHECK: GLOBAL COMPARISON

Another reality check can be made using comparative international data. Americans use more water per capita overall than most nations of the world. Yet water prices in the United States are comparatively lower than prices charged by water service providers in many other developed countries. These findings also are supported by a study conducted by researchers in the Great Britain who controlled for international difference in the gross domestic product.

REALITY CHECK: RATE SHOCK

Large rate increases have the potential to cause rate shock among customers. Technically, rate shock applies when a rate increase is associated with a significant drop in usage, which reflects the willingness (and ability) to pay for service. For essential services (with relatively price-inelastic demand), these drops may be transitory. The term "rate shock" is also used to describe the pubic outcry associated with rate increases—which may have no basis in affordability. However, the extent of rate shock and affordability concerns depends in part on the level of the current

water bill and the magnitude of the rate increase. Techniques are available to mitigate rate shock and address genuine affordability problems.

Consumer Price Index data (BLS) reveal that real (inflation-adjusted) water rates are rising faster than the overall rate of inflation—along with prices for garbage collection, cable television, and local telephone service. Data for individual communities suggest that real (inflation-adjusted) rates have risen for some but declined for others.

Any given rate increase may or may not trigger rate shock or cause hardship. A higher percentage increase on a low base may not be problematic for most households. The magnitude of the increase relative to household income levels should be considered. Public involvement and communications (including informative bills) can help customers understand the reasons for the rate increase.

As suggested in the review of municipal finances, underpricing of water services may be an important factor in the projected funding gap. Underpricing sends inappropriate signals to customers about the value of water, leading to inefficient useage. According to basic economic theory, underpricing also leads to over-consumption and inefficient supply decisions to meet inflated demand. Privately owned utilities are more likely to adhere to cost-based ratemaking that recovers total revenue requirements (capital and operating costs).

Some communities deliberately maintain "low" prices for water and wastewater services for reasons that include community values, economic development, and political expedience. In some cases, rate increases have been avoided for very long time periods. Taking inflation into effect, a "stable" rate is actually a rate that has decreased over time. The "loss" of revenue presents an opportunity cost to the community in terms of its ability to make appropriate infrastructure investments.

Rate shock in the water sector is possible because rising costs must be recovered over flat per-capita demand. Affordability concerns are real but manageable. Financing, ratemaking, and conservation strategies can mitigate rate shock to a degree. Surcharge adjustments can be used to achieve gradualism in rate increases. Larger systems can use consolidated rates, progressive rate structures, and conservation targeted to low-income households. Needs-based subsidies can be used to help eligible customers by providing direct payment assistance or funding a lifeline rate.

From a theoretical standpoint, willingness to pay is represented by the demand curve, which incorporates the consumer's ability to pay. From a practical standpoint, ability to pay is a function of price and income and can be addressed through rate design and subsidies (respectively). For many publicly-owned systems, the real problem is not the willingness nor the ability to pay—but the "willingness to charge" customers at rates closer to the true value of water service.

REALITY CHECK: CONSUMER PREFERENCES

Another "gap" seems to persist between customer preferences and their willingness to pay for safe and reliable water service. According to opinion polls (Gallup), Americans consistently express a high degree of concern about drinking water and related issues. Paradoxically, consumers do not necessarily appreciate the value of water services. Consumers often appear unwilling to support rate increases necessary to ensure drinking water quality and reliability. Indeed, low prices reinforce the view that water services are an entitlement. Public education is needed to close the gap between opinion and willingness to pay the cost for arguably the most essential utility services.

Water itself has no substitutes, but alternative methods of delivery are available. For many U.S. households, the price of one gallon of centrally supplied water—conveniently delivered to the tap—is less than one-third of one penny (see Raftelis Environmental Consulting Rate Survey). In general, every other water alternative is no more safe, much less convenient, and astronomically more expensive. At $1.15 per gallon, the price of "designer water" is 347 times the price of tap water.

Despite the high costs, Americans continue to buy bottled water in increasing amounts. In 1999, bottled water sales had increased by 12 percent. In 1999, the nation's water utilities collected revenues totaling about $29.4 billion. Wastewater treatment works collected revenues totaling about $26.3 billion. The bottled water industry collected revenues totaling $5.2 billion.

Rough estimates can be used to compare the profit margin for bottled water versus tap water. For larger bottlers, total production costs (including source costs) amount to about 10 cents for each bottle that can be sold for 70 cents or more (a 600 percent markup). The "markup" for tap water, even for private companies, is closer to 10 percent.

REALITY CHECK: FEDERAL FUNDING

The reality of the broader context of Federal funding also is relevant to any particular constituency, including the water and wastewater industries. It is important for the water industries to have realistic expectations about future Federal funding for water programs in order to plan sufficiently to meet infrastructure needs.

Water services have always been and always will be subsidized to a degree. Some subsidies are in the public interest because of equity considerations, as well as health, safety, and environmental protection concerns. All subsidies have distributional consequences (that is, they result in both winners and losers). Subsidies can also perpetuate dependence, inefficiency, and stagnation on the part of recipients. Whether a water system or a customer, subsidies can mute incentives for cost control. Subsidies require tax revenues and taxpayers are also ratepayers (the same households pay one way or another). The social benefits of subsidies should outweigh the total costs.

Programs have been established to assist low-income customers in other utility sectors. The LIHEAP programs provide payment assistance for energy services. Under the 1996 Telecommunications Act, the Lifeline and Linkup programs provide assistance to telephone customers.

In reality, water and wastewater infrastructure funding already exceeds Federal funding provided to the LIHEAP and Lifeline/Linkup programs. Levels of funding under the WIN (Water Infrastructure NOW) proposal would vastly exceed current levels for water infrastructure, as well as other utility programs. The WIN proposal expands grant subsidies, which effectively can both reward and perpetuate inefficiency. If a subsidy rewards past inefficiency, continued inefficiency on the part of the system is assured because underpricing will persist.

Infrastructure funding for water is provided through the Clean Water and Safe Drinking Water State Revolving Funds (SRF). The principles underlying the DWSRF are sound: demonstration of capacity by systems; priority on pubic health and affordability; emphasis on loans (v. grants); and ineligibility of maintenance and growth-related costs. The SRF should not reward cost avoidance and inefficiency. The SRF should not advantage publicly-owned systems (and their customers) over privately-owned systems (and their customers) and further widen the rate disparity (another "gap").

Some programmatic reforms could enhance the existing Clean Water and Drinking Water funding programs. Potential measures include: improving efficiency and lowering administrative costs to States and systems; addressing barriers to access and funding equity for different types of systems (large and small systems; publicly- and privately-owned systems); establishing fair criteria for funding infrastructure costs; and promoting sound cost accounting and rate design

The long-term Federal funding environment for all utility services is not without uncertainty. Concerns have emerged about maintaining funding for telecommunications assistance programs under the Bush administration. Base-level funding for LIHEAP (excluding supplemental appropriations) has declined over the life of the program. The budget of the USEPA also has been targeted for budget cuts under the Bush administration.

REALITY CHECK: STATE AND LOCAL PRIORITIES

At the local level, water and wastewater services—although vital to communities—are not always assigned high priority. In many larger cities, funding needs for the water sector are comparable to funding provided for professional sports stadiums.

Given their primacy for water and wastewater policies, the State also must play a role in addressing the infrastructure issues. Several States have taken steps in this area, including: Pennsylvania (cost recovery), Kentucky (regional consolidation), Rhode Island (capital planning), Oregon (program integration), and Texas (regulatory reform).

REALITY CHECK: THE GAP

The concept of a funding gap merits further consideration and debate. The need to invest in the nation's water and wastewater infrastructure is real, but the "funding gap" is essentially a construct. The magnitude of the gap is uncertain and may be inflated. The potential to lower costs through restructuring, innovation, operational efficiency, and integrated resource management (including conservation achieved by water-efficient fixtures and practices) may not be fully considered. The need is largely attributable to system demographics (age and condition), although some deferrals have probably exacerbated the problem (the "willingness to spend").

Many water utilities (and most other utilities) can and do support the cost of service through rates. A funding gap will materialize if deferrals and underpricing persist; that is, if the responsiveness gap widens. The water industries must provide leadership and effectively manage their current and future assets on the public's behalf.

Aggressive action is needed to close the projected gap from the top (infrastructure needs) and from the bottom (expenditure levels). Cost-reduction strategies for closing the gap from the top include: efficiency and optimization (least-cost) approaches directed at both water production and usage; leadership and continued technological innovation; and industry restructuring to achieve scale economies and improve operational performance. Some gap estimates have attempted to incorporate efficiency improvements—but a gap is still anticipated. Technical and managerial innovation can substantially reduce operating costs; capital costs can be reduced, but probably to a lesser degree given the basic capital intensity of water services. Industry restructuring includes consolidation and fundamental changes in system ownership and management (including regionalization and privatization).

The gap can be closed from the bottom by increasing revenues to support infrastructure expenditures. Revenue-enhancement strategies include: cost-based (marginal-cost) rates to send better price signals to customers, along with other ratemaking strategies (such as surcharges); private-sector investment; and public-sector funding (local, State, and Federal). With the magnitude of the infrastructure need and the complexity of the water sector, multiple revenue-enhancement solutions are necessary and appropriate. However, cost-based rates should be emphasized and public subsidies should be used judiciously.

The public sector will continue to play a central role in addressing water and wastewater infrastructure needs. The public sector can: leverage other public and private funding sources; provide incentives for optimal investment, operational efficiency, and cost-effective restructuring; support research and development, data collection and information dissemination; address at-risk systems and households based on demonstrable needs; and promote sustainable water systems, not sustainable subsidies.

The private sector can play an expanded role in addressing water and wastewater infrastructure needs. The private sector can: provide leadership, technical innovation, and research; promote efficiency and sustainability through market-based solutions as appropriate; develop a range of asset ownership and management options to address capital and operating needs; secure and utilize available public funding; and maintain accountability through regulation.

THE REAL CHALLENGES

Moving forward, the real challenges to all stakeholders in the water and wastewater sectors may be to:

- Establish a new science of prudent asset management for the water sector.
- Engage the public on water issues through open and participatory processes.
- Demonstrate a willingness to charge for the true cost of water service.
- Use public funding strategically to make lasting improvements to operations.
- Do not postpone the inevitable and perpetuate the responsiveness gap.
- Promote equity and sustainability over a long-term planning horizon.
- Be receptive to technical and institutional innovation.

Although formidable, these challenges can be met.

I look forward to working with this committee, the H2O Coalition, and all other stake holders on this issue. Thank you for your attention.

RESPONSES BY JANICE A. BEECHER TO ADDITIONAL QUESTIONS FROM SENATOR CRAPO

Question 1. Your testimony makes the case that the actual size of the problem for infrastructure needs may not be as important as recognizing the relative importance of the issue. Without a carefully established needs assessment, do you believe the Federal Government will fully understand the scope of the infrastructure problem?

Response. It is important for the Federal Government to have a reasonably valid and reliable estimate of water and wastewater infrastructure needs. But the estimation of national need is complicated by (1) the fragmented nature of the water and wastewater industries, (2) the long-term planning horizon under consideration, (3) the dynamics of the industries' structure and regulation, (4) differences among systems in accounting, financing, and ratemaking practices, and (5) the potential incentive to introduce bias to estimates of current spending, future needs, and the "gap." It may be impractical to spend a disproportionate amount of resources on

achieving a precise national needs estimate, given the limited benefits that greater precision might provide.

Establishing some reasonable ranges and benchmarks may be sufficient for policy development purposes. Some of the existing methods for collecting data (such as the EPA's needs assessment surveys) can and will be sharpened to improve the estimation process.

Obviously, an objective analysis of needs is needed. As emphasized in my testimony, however, any methodology for estimating need, must give fair and equal attention to the forces that might drive the total need upward and forces than might drive the need downward. The longer the time horizon, the greater the uncertainty about these dynamics, as must be recognized in any analysis. It might also be useful to develop scenarios that represent different sets of assumptions and strategies.

Question 2. Does your information indicate a difference in needs if there is a preference for replacement instead of rehabilitation of older systems? Does an acceleration of replacement projects change the overall needs for utilities?

Response. These questions cannot be easily answered at the national level and require technical knowledge beyond my scope of expertise. The mix of rehabilitation and replacement will affect the needs estimate in the short term and in the long term (possibly in different ways). For individual systems, the choice is meaningful. Life-extending maintenance may be cost-effective in some circumstances and not in others. Materials, maintenance practices, usage patterns, and topography are relevant factors.

As I understand it, renovation (pipe lining) may cost about two-thirds of the cost of replacement and provide only limited service life. For very old facilities, replacement may be preferred because it is the only cost-effective choice for meeting service standards (including regulatory compliance) over time. Fortunately, decision models are emerging to help individual systems weigh the costs and benefits of the repair/replace choice, taking a comprehensive look at relevant conditions, risks, and tradeoffs. For example, some systems are using advanced monitoring and geographic information systems to evaluate infrastructure integrity, including patterns of breakage and water losses, and make appropriate repair/replace decisions.

In general, an excessive amount of cost-ineffective rehabilitation will add to total long-term needs, as would an excessive amount of uneconomic replacement.

Question 3. What portion of needs do you believe are actually attributable to inefficient operation and management of systems?

Response. Although the anticipated need attributable to inefficient operation and management cannot be estimated with precision it is reasonable to assume that this proportion is not zero. The WIN estimate of need appears to be static and seems to have a much greater upward bias than estimates prepared by EPA. Any estimate of potential savings on a percentage basis depends on the assumptions that underlie the needs estimate.

In my opinion, the cost profiles of the water and wastewater industries suggest the potential for cost reductions in the range of five percent or more in each of the following areas: efficiency practices (planning, management, and operations), integrated resource management (supply side and demand side), technological innovation (capital and operating), and industry restructuring (consolidation, privatization, and market-based approaches).

These estimates of potential savings are relatively conservative; some individual systems have demonstrated dramatic cost savings in these areas. Of course, individual water and wastewater systems vary in terms of efficiency and the potential for improvement; the least efficient systems have the most to gain. Efficiency gains and other improvements in performance can enhance the quality of service and help offset some of the cost impact associated with infrastructure replacement. Variable operating costs may present more opportunities for efficiency savings than fixed capital costs, although all costs are variable in the long run.

The long-term assessment of infrastructure needs should recognize the dynamic nature of the water sector, particularly as the sector responds to this challenge. As pipes are replaced, water losses and associated operating costs will be significantly reduced. Based on research in this area, the value of water lost through leakage could exceed $1 billion annually (extrapolated from an American Water Works Association Research Foundation study). Loss-reduction, conservation, and other resource management programs are helping some individual systems reduce operating costs and postpone or avoid significant capital costs (EPA case studies are available on this issue). New analytical tools are emerging to improve operations and the deployment of primary inputs (water, energy, and chemicals). Given the long-term horizon for which needs are estimated, the potential for technological advances in treatment and other processes also seems great. Management efficiency is as impor-

tant as operating efficiency. Numerous case studies in performance improvement, privatization arrangements, and market-based practices (such as competitive bidding) have shown that substantial savings are achievable for some systems. The markets for new technologies and services will continue to evolve and play a role in broader industry restructuring. Finally, more efficient (cost-based) price signals will promote more efficient water usage and help reduce some types of system costs for both water and wastewater utilities.

Question 4. How can utilities establish more "realistic" service-life expectations of systems to improve confidence in the needs assessments?

Response. The estimation of service life should be informed by general and system-specific knowledge about materials, maintenance practices, usage patterns, and topography. For many water systems, detailed records on distribution facilities are not readily available. However, the water industry has conducted numerous research studies and advanced various tools for assessing infrastructure conditions and anticipated useful life. Larger systems probably have greater capacity to make these assessments than smaller systems.

Clearer standards and defined best practices in the water and wastewater industries could service the purpose of service-life and needs estimation.

Question 5. Does the EPA's use of improved accounting methods result in more reliable needs assessments?

Response. Yes. The water industry is unlike the energy and telecommunications industries in terms of Federal economic regulation and associated accounting. The lack of uniform of accounting in the water sector and the different practices used by different systems (especially publicly versus privately owned systems) presents a challenge for any survey effort. Gradually, however, EPA has moved toward better methods for surveying needs. Continued use of peer review can help EPA continue to refine its data-collection efforts.

Question 6. What portion of needs do you believe can be addressed through rate changes and the associated alteration in usage patterns?

Response. In practice, a significant segment of the water industry meets all needs (that is, total revenue requirements) through rates and other charges for service. Some private water systems use revolving fund loans, but loans are repaid from rate revenue. The investor-owned industry has met historic needs through rates and intends to meet future needs primarily through rates. Rates charged by investor-owned utilities are subject to regulatory review by the State public utility commissions. Many publicly owned water and wastewater systems also cover the cost of service through rates.

In theory, then, a substantial portion of the anticipated infrastructure need can be met through rates, assuming that cities are willing to charge customers the cost of service. For some systems, depending on current rate levels, substantial rate increases would be required. Whether or not a rate increase is considered affordable depends on both the demographics of the system and the rate design used to recover costs. A larger system has the advantages associated with scale economies, as well as a more diverse customer base over which to spread costs.

Cost-based rates have the potential to suppress some water usage and help utilities avoid operating costs (water, energy, and chemicals), as well as some capital costs. Usage by large-volume customers is more sensitive to price changes. Indoor water usage is generally less discretionary and not very price responsive (price-inelastic); outdoor water usage is more discretionary and more price responsive (price-elastic). More discretionary usage (such as seasonal usage) tends to peak demand and associated costs. At higher prices, water usage may fall somewhat depending on income levels and other water usage determinants. Efficiency strategies can help reduce both indoor and outdoor water use. Better estimates of the potential for efficiency conservation to avoid costs are needed.

The movement to cost-based rates for water and wastewater services will raise genuine concern for low-income households. Some smaller systems serve impoverished areas. Some larger systems have significant pockets of poverty. As stated in my testimony, Federal assistance should target water systems and water customers that are facing genuine and significant public-health risks and affordability challenges. Targeted assistance and a well-designed water rate can help keep basic water service affordable to low-income households.

Question 7. What role can technology innovation play in reducing utility needs?

Response. As noted above, technological advances conservatively should help reduce costs by 5 to 10 percent. Technological advances beyond a few years are nearly impossible to predict. Rising costs, regulations and standards, and the marketplace

will drive technological development—if the incentives are appropriately maintained.

In many respects, the physical properties of water and wastewater limit technological innovation (particularly in transmission and distribution). Nonetheless, the industries have seen substantial innovation in terms of emerging technologies in such areas as monitoring, maintenance, and treatment. For smaller water systems, technology (such as point-of-use treatment) may be especially important in terms of providing cost-effective methods of compliance with drinking water regulations. For larger systems, technology (such as reuse and desalination) may greatly reduce source-of-supply costs.

The infrastructure funding debate has stimulated considerable attention to the need for innovation. Because the potential need is so great, private equipment manufacturers and suppliers are beginning to compete for market opportunities. Continued competition will stimulate innovation and help lower costs. The Federal Government can also encourage innovation by providing funding for innovative research, as well as demonstration projects. Care should be taken to ensure that Federal policies, including funding, help advance innovation rather than stifle innovation.

Obviously, the water and wastewater industries should continue to provide leadership and promote an integrated science of asset management, in which technological and management innovation should play a central role.

RESPONSES BY JANICE A. BEECHER TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. In your testimony, you mentioned that some private utilities have implemented surcharge mechanisms to fund continuous programs for infrastructure replacement. Would this surcharge mechanism be appropriate for all systems, regardless of size or public-private ownership?

Response. Yes. Different types of water and wastewater utilities, regardless of size or ownership structure, can use a surcharge mechanism. However, oversight capacity with regard to the use of surcharges, as well as other rate structures and adjustment mechanisms, will vary by type of system. The regulatory process holds investor-owned utilities to a high level of accountability and the public utility commissions have substantial financing and ratemaking expertise. Many local public officials and agencies may not have adequate capacity in these regards.

The Distribution System Improvement Charge (DSIC) is used by investor-owned utilities in Pennsylvania, and the mechanism has been approved for use in Illinois and Indiana. The DSIC is not a panacea, but can be a very useful tool for addressing the "ramp function" associated with infrastructure costs, and it can also help lower rate case expenses. Adequate depreciation rates and a forward-looking ratemaking process (future test year) also are useful in terms of providing internal cash flow for making improvements.

Use of the surcharge, however, depends on the consent of the oversight body to which the water system is accountable (state public utility commissions in the case of investor-owned utilities and local governing bodies, such as city councils, in the case of publicly-owned utilities). Regulators or other reviewers must be comfortable with the workings of the mechanism. The utility's need for revenues must be balanced against vital protections for ratepayers (including a cap on the allowed rate adjustment). Care must be taken to ensure that the utility—public or private—continues to have appropriate incentives for cost control.

Question 2. In your opinion, what has caused the discrepancy between expenditures and user charge revenues for publicly-owned systems.

Response. It is my opinion that many publicly owned water systems have used internal and external subsidies to support the cost of service. An internal subsidy may come from intragovernmental transfers made possible by general revenues collected from property or other tax revenues. An indirect form of internal subsidy also occurs when a municipality provides certain technical or administrative functions but does not "charge" the associated costs to the utility's accounts. For example, a city clerk or attorney paid from general revenues may provide services that benefit the utility. Subsidies sometimes flow between water and wastewater operations (overcharging for one service and undercharging for the other). Occasionally, internal subsidies flow from water and wastewater operations to other city functions, although this does not necessarily mean that adequate investments are being made in the water and wastewater facilities.

External subsidies in the form of Federal and State grants also make it possible to support the cost of water and wastewater services. The subsidization of water services is sometimes rationalized on the basis of economic development and afford-

ability grounds. In some instances, however, rates may be artificially suppressed for political reasons (that is, to avoid electoral consequences)

The H2O Coalition and I both concur with the stated position of the American Water Works Association (revised and adopted January 26, 1992) on the central role of rates in sustaining water utilities:

1. Every water utility should receive sufficient revenues from water service and user charges to enable it to finance all operating and maintenance expenses and all capital costs.

2. Water utilities should maintain their funds in separate accounts. Such funds should not be diverted to uses unrelated to water utilities . . .

3. Every water utility should adopt a uniform system of accounts . . .

4. Water rate schedules should distribute the cost of water service equitably . .

This position is also reflected in the association's published guidance manuals on financing and ratemaking for water utilities.

CLEAN WATER ACTION CALLS ON CONGRESS TO CREATE NEW $57 BILLION WATER INFRASTRUCTURE FUND

ENVIRONMENTALIST PRESS CASE TO FUND POLLUTION CLEAN UP AND PREVENTION, NOT LOWER PUBLIC HEALTH PROTECTIONS ARSENIC ISSUE IS HIGHLIGHTED

"Instead of gutting the new more health protective arsenic standard," said Clean Water Action's Paul Schwartz, "Congress should follow Senators Reid and Ensign's lead and get our communities the necessary resources to do the right thing."

Washington, DC. (March 27, 2001). Clean Water Action (CWA) called today for Federal legislation to renew the nation's commitment to clean and safe water by creating a new $57 billion dollar water infrastructure fund. Testifying before the U.S. Senate's Subcommittee on Fisheries, Wildlife and Water, Clean Water Action's National Policy Coordinator, Paul Schwartz said, "Now is the time for the Federal Government to recommit to protecting public health and the environment."

"Public health and the environment are endangered by out-of-date and declining sewer and drinking water infrastructure. Not only do we have old plumbing and treatment in place, but public health threats such as arsenic, cryptosporidium and MTBE are putting an increasing strain on financially strapped communities across rural and inner-city America," said Schwartz. "Instead of gutting the new more health protective arsenic standard, Congress should follow Senators Reid and Ensign's lead and get our hard pressed communities the necessary resources to do the right thing."

"Over the last few years Congress has found the will to provide billions of dollars to make our highways and airports safer," said Schwartz, "Congress must use its clout and Federal resources to bridge the clean, safe and affordable water funding gap."

Clean Water Action made the case that Congress must:

1. Invest money now to save money in the long-term and yield immediate economic and health benefits.

2. Give States flexibility to invest in green infrastructure as well as traditional infrastructure needs.

3. Channel the dollars for cleanup, not sprawl development or environmentally destructive projects.

4. Protect ratepayer and taxpayer by supporting fiscally conservative approaches and utilizing market—based incentives.

5. Fund safe and affordable water for small communities.

6. Give States and communities flexibility but demand accountability and encourage broader public participation in helping to determine which projects were ultimately funded.

Clean Water Action is a national organization working to ensure clean, safe and affordable water, prevention of health-threatening pollution and creation of environmentally-safe jobs and businesses. CWA has more than 700,000 members nationwide.

STATEMENT OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

Mr. Chairman and members of the subcommittee: The American Society of Civil Engineers (ASCE) is pleased to provide this statement for the record on the drinking-water and wastewater infrastructure needs in the United States today.

ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents more than 125,000 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 501(c)(3) non-profit educational and professional society.

A. THE ISSUE

Earlier this month, ASCE released its 2001 Report Card for America's Infrastructure in which the nation's life-sustaining foundation received a cumulative grade of "D+" in 12 critical areas. The reasons for such a dismal grade include the growing obsolescence of an aging system; local political opposition and red tape that stymie the development of effective solutions; and an explosive population growth in the past decade that has outpaced the rate and impact of current investment and maintenance efforts.

The 2001 Report Card follows one released in 1998, at which time the 10 infrastructure categories rated were given an average grade of "D." This year wastewater declined from a "D+" to a "D," while drinking water remained a "D." Wastewater and drinking water systems are both quintessential examples of aged systems that need to be updated.

B. DRINKING-WATER INFRASTRUCTURE NEEDS

The nation's 54,000 drinking water systems face staggering infrastructure funding needs over the next 20 years. Although America spends billions on infrastructure each year, we estimate that drinking-water systems face an annual shortfall of at least $11 billion to replace aging facilities that are near the end of their useful life and to comply with existing and future Federal water regulations. The shortfall does not account for any growth in the demand for drinking-water over the next 20 years.

Although the Safe Drinking Water Act Amendments of 1996 (SDWA) authorized the Environmental Protection Agency (EPA) to spend $1 billion annually to construct and repair drinking water facilities, Congress has failed to appropriate the full amount. In fiscal year 2001, the appropriated amount is $825 million, 82.5 percent of the authorized total, representing less than 10 percent of the total amount needed this year.

In January 1997, EPA presented to Congress the first drinking water needs survey, that indicated the nation's 54,000 community water systems will need to invest $138.4 billion over the next 20 years to install, upgrade, or replace infrastructure to ensure the provision of safe drinking-water to these systems' 243 million customers.

But the most recent study by the EPA reveals that the need is even greater. In 1999, the Agency conducted the second Drinking Water Infrastructure Needs Survey. The purpose of the survey is to document the 20-year capital investment needs of public water systems that are eligible to receive Drinking Water State Revolving Fund (SRF) moneys.

The survey found that the total drinking-water infrastructure need nationwide is $150.9 billion for the 20-year period from January 1999 through December 2018.

Of course, notwithstanding the great need for further investment in replacement pipes and related infrastructure, we as a nation are making great strides in improving the quality of our drinking-water.

Health-based violations of Federal drinking-water standards are declining steadily, according to data from the EPA. In 1993, 79 percent of Americans were served by water systems that did not experience health-based violations. By 2000, that number rose to 91 percent.

Nevertheless, without a significantly enhanced Federal role in providing assistance to drinking water infrastructure, critical investments will not occur. Possible solutions include grants, trust funds, loans, and incentives for private investment. The question is not whether the Federal Government should take more responsibility for drinking water improvements, but how.

C. WASTEWATER INFRASTRUCTURE NEEDS

Although the Federal Government has spent more than $71 billion on wastewater treatment programs since 1973, the nation's 16,000 wastewater systems still face enormous infrastructure funding needs in the next 20 years to replace pipes and other constructed facilities that have exceeded their design life.

With billions being spent yearly for wastewater infrastructure, the systems face a shortfall of at least $12 billion annually to replace aging facilities and comply with existing and future Federal water regulations. As with drinking-water needs, this total does not account for any growth in demand from new systems.

Funding for wastewater infrastructure has remained essentially flat for a decade. In fiscal y ear 2001, Congress appropriated $1.35 billion for wastewater infrastructure, which represents about 11 percent of the annual need nationally. Require-

ments for communities that have not yet achieved secondary treatment or must upgrade existing facilities remain very high: $126 billion nationwide is required by 2016, according to the most recent estimate by the EPA.

The largest need, $45 billion, is for projects to control combined sewer overflows. The second largest category of needs, at $27 billion, is for new or improved secondary treatment (the basic statutory requirement of the Clean Water Act). In addition to costs documented by EPA, States estimate an additional $34 billion in wastewater treatment needs for projects that do not meet EPA documentation criteria but, nevertheless, represent a potential demand on State resources.

Between 35 percent and 45 percent of U.S. surface waters do not meet current water-quality standards. According to the EPA, sewer overflows are a chronic and growing problem. Many of the nation's urban sewage collection systems are aging; some sewers are 100 years old. Many systems have not received the essential maintenance and repairs necessary to keep them working properly.

D. POLICY OPTIONS

New solutions are needed to what amounts to a nearly trillion dollars in critical drinking-water and wastewater infrastructure investments over the next two decades. Not meeting the investment needs of the next 20 years risks reversing the public health, environmental, and economic gains of the last three decades.

The case for Federal investment is compelling. Needs are large and unprecedented; in many locations, local sources cannot be expected to meet this challenge alone; and because waters are shared across local and State boundaries, the benefits of Federal help will accrue to the entire nation.

Clean and safe water is no less a national priority than are national defense, an adequate system of interstate highways, and a safe and efficient aviation system. These latter infrastructure programs enjoy sustainable, long-term Federal financial aid; under current policy, water and wastewater infrastructure do not.

Equally compelling is the case for flexibility in the forms of Federal investment including grants, loans, and other forms of assistance. Grants will be needed for many communities that simply cannot afford to meet public health, environmental, and/or service-level requirements. Loans and credit enhancements may be sufficient for other types of communities with greater economies of scale, wealthier populations, or fewer assets per capita to replace.

ASCE recommends that funding for water infrastructure system improvements and associated operations be provided through a comprehensive program that addresses the infrastructure needs of drinking-water and wastewater systems. Congress must create a Federal water trust fund to finance the national shortfall in funding for water and wastewater infrastructure. Money in the trust fund should not be diverted for non-water purposes.

Moreover, we support the use of Federal appropriations from general treasury funds and the issuance of revenue bonds and tax-exempt financing mechanisms at the State and local levels, as well as public-private partnerships, State infrastructure banks, and other innovative financing procedures.

Finally, some have argued that Federal regulatory programs under the Clean Water Act and Safe Drinking Water Act are too restrictive; others argue that the current regulations may not be protective enough of human health and the environment. Without taking a position either way, ASCE does not believe that legislation designed to provide indispensable financing for our aging infrastructure should be the forum to address controversial regulatory changes about which there is little consensus at the moment.

ASSOCIATED BUILDERS AND CONTRACTORS, INC.,
March 27, 2001.

Hon. MICHAEL D. CRAPO, *Chairman,*
Environment and Public Works Committee,
Dirksen Senate Office Building, Washington, DC.

DEAR CHAIRMAN CRAPO: On behalf of Associated Builders and Contractors (ABC) and its more than 23,000 construction and construction-related firms in a network of 83 Chapters across the United States, I would like to respectfully submit the following comments for the record regarding the March 27 hearing on water infrastructure needs.

ABC recognizes the importance of Federal support for clean water infrastructure funding. The cost of insufficient attention to clean water issues is indisputable. Non point source pollution, leaking toxins, stormwater runoff, and coastal pollution pose grave risks to our nation's water quality. Our Nation's water quality and environ-

mental infrastructure could not be more vital to our health, safety and overall quality of life. Congress passed the first Clean Water Act in 1972, which linked the Federal Government with States and cities to clean up the country's water by funding projects relating to water supply and wastewater treatment.

ABC strongly supports funding that maximizes State flexibility in addressing each State's water infrastructure needs. A primary goal of the Clean Water State Revolving Fund program is to provide States with increased flexibility in running their program, including prioritizing and choosing the best projects to improve water quality. Expanding loan eligibility further enhances State flexibility beyond providing loans to wastewater infrastructure, non-point source and estuary projects. Enhancing State flexibility would help States better address their changing infrastructure needs.

However, ABC would like to note that the Federal Davis-Bacon Act limits State flexibility and adds between *5–39 percent* to the costs of construction. The impact of this is felt most severely in rural areas, which often have the greatest need for improved water infrastructure. We strongly urge Congress to refrain from imposing this burden on SRF construction projects.

Congressional intent was to sunset Davis-Bacon with FY 1995, and it has since then not applied. Adding Davis-Bacon is an inappropriate and unnecessary, Federal mandate that hurts much-needed construction efforts. Nineteen States recognize the waste associated with Federal restrictions like Davis-Bacon and have chosen not to have similar State restrictions. Moreover 12 States, including Colorado, Idaho, Iowa, Louisiana, Michigan, Montana, Nebraska, North Carolina, Oklahoma, Oregon, Texas and Utah, have formally expressed their opposition to the re-application of Federal Davis-Bacon requirements to SRF loans. As the State of Colorado noted in a letter to the EPA dated July 18, 2000,

> Our past experience indicates that for small rural construction projects, the total project costs increase between 20–30 percent when Davis-Bacon requirements are imposed. In addition, there is no evidence in Colorado to substantiate your claim that the use of prevailing wage rates lead to higher quality construction.

Any new extensions of Davis-Bacon on SRF will act as a type of "unfunded mandate" on those States by forcing them to spend money toward complying with an outdated Federal labor law that results in inflated costs. If the Federal Government were to appropriate $3 billion over 4 years, assuming an average increase of 15 percent, the Davis-Bacon Act could divert *$450 million a year,* or $1.8 billion over 4 years, from the money appropriated for clean water infrastructure projects.

Furthermore, local residents should have the flexibility to work on local construction projects to meet neighborhood needs. Yet projects under Federal Davis-Bacon requirements cannot hire local "helpers" to work on infrastructure projects. These are valuable entry-level jobs for low-skilled workers who want job access and experience by working under the direct supervision of higher-skilled journey-level workers. In today's changing welfare-to-work environment, and with the importance of revitalizing disadvantaged communities, it is critical that the Federal Government not hinder State and local efforts to provide entry-level jobs. lnserting the Federal Government bureaucracy into the local construction process will limit job opportunities for many low-skilled minorities, at-risk youth, and displaced workers who would otherwise have a chance to gain experience as a helper on a project in their own neighborhood.

Any application of Davis-Bacon requirements to State Revolving Funds is unnecessary and would be an *expansion* of Davis-Bacon to projects where it currently does not apply. ABC is strongly opposed to this effort and any similar expansion of Davis-Bacon to local construction activity.

Respectfully submitted,

ANNE BRADBURY,
Washington Representative.

STATE OF OKLAHOMA WATER RESOURCES BOARD,
August 1, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: Proposed Settlement Agreement, Application of Labor Standards Provision in the Clean Water Act State Revolving Fund Program

DEAR MR. COOPER: The following comments are in response to the referenced notice published in the *Federal Register* on June 22, 2000.

The Oklahoma Water Resources' Board objects to the proposal to reinstate the prevailing wage rate requirements of the Davis-Bacon Act for federally assisted projects in the Clean Water State Revolving Fund (CWSRF) Program. Title 33, Section 1382 of the United States Code sets forth requirements for a State to receive a capitalization grant. Among other items, § 1382(b)(6) describes several provisions that must be applied to projects that receive assistance from funds directly made available by capitalization grants. However, § 1382(b)(6) further stipulates that these requirements will apply to projects "constructed in whole or in part before fiscal year 1995". The provision that EPA proposes to apply, § 1372, is among the requirements specifically designated in § 1382(b)(6) that no longer apply. Congress, in enacting the Federal Water Quality Act of 1987 ("the Act"), chose language that limited the application of these requirements to projects "constructed in whole or in part before fiscal year 1995." Congress drew a distinction between direct construction grants made under subchapter VI of the Act. Prior to fiscal year 1995, Congress intended capitalization grants to be treated the same as direct construction grants. However, Congress by its own statutory construction would have capitalization grants treated differently than direct construction grants beginning in fiscal year 1995. If Congress had intended these specific requirements of § 1382(b)(6) to continue to apply beyond the statutorily enacted date, then either: (i) Congress would not have included a specific expiration dates; thus allowing the provision to apply in perpetuity, as other requirements of § 1382 continue to apply; or (ii) Congress would have reauthorized the specific requirements of § 1382(b)(6) when making subsequent appropriations to fund the Act. As such, Congress has continued to appropriate funds for the Act both for direct construction grants and for capitalization grants. Congress has not directed that the requirements of § 1382(b)(6), including reference to § 1372, be renewed. The mere appropriation of money does not reauthorize expired statutory provisions. In fact, the expired provisions of § 1382(b)(6) are completely unnecessary to the continued successful operation of the CWSRF Program. They are merely bygone provisions that Congress duly allowed to expire.

Furthermore, we object to the characterization that § 1372 imposes an independent obligation on the EPA to apply the provision of the Davis-Bacon Act. Given the distinction drawn by Congress as noted above and the statutory expiration of the application of § 1372 to capitalization grants, we are of the opinion that § 1372 is in fact a separate obligation that does not apply to capitalization grant monies. Section 1372 refers to treatment works for which grants are made," and directs prevailing wages be paid according to the Davis-Bacon Act at 40 U.S.C. § 276a et seq. Section 276a(a) of the Davis-Bacon Act States that the United States or the District of Columbia must be a party to a contract for its provisions to apply. In the case of a direct construction grant, it is clear that the United States is directing (through appropriate legislative appropriation by Congress and implementation by the authorized Federal agency) that a specific project be built. However, in the case of a capitalization grant. The United States is making a grant to a State revolving fund. The monies are then expended in accordance with the terms of a State's authorizing legislation and the Capitalization Grant Agreement to make loans to eligible entities for wastewater treatment projects. As such, no grants are being made to fund treatment projects directly, only a grant to provide funding to a State revolving fund. The United States does not enter into any agreement with the project entity, and does not designate the projects for which the funds are to be used. Rather, the individual State agency responsible for administering the State's CWSRF Loan Program identifies eligible projects and enters into loan agreements containing provisions stipulated in the Grant Agreement and in §§ 1381 et seq., for which the application of § 1372 is no longer required. Section 1381 clearly States the purpose of capitalization grants are to establish a water pollution control revolving fund for providing assistance in the form of loans, not to make direct construction grants, and directs that capitalization grants be made subject to the provision of subchapter VI. In each annual Congressional appropriation bill (see, for example, Pub. L. 105–276 and Pub. L. 106–74), a distinction is drawn between capitalization grant appropriations for Clean Water State Revolving Funds and other grants made directly for the construction of wastewater and water treatment facilities. Section 1383(e) directs a loan recipient to promptly repay any loan funds if a direct construction grant is later provided to the loan recipient. Furthermore, § 1386(f) directs that the provisions of subchapter 11 (direct construction grants) will not apply to capitalization grants.

The capitalization grant award is not a direct construction grant for the construction of treatment works referred to in § 1372. But for the statutory language of § 1382(b)(6), § 1372 would not ever have applied to the capitalization grant funds.

As per Congressional stipulation, beginning in fiscal year 1995, § 1372 no longer does apply.

The statutory language itself can only be interpreted one way. Beginning fiscal year 1995, the applicability of the Davis-Bacon Act to loans made from a CWSRF Loan Program funded by Capitalization Grants expired. Congress, and only Congress, is the appropriate forum for reapplying the Davis-Bacon Act to the CWSRF Program. A negotiated settlement between the EPA and the Building and Construction Trades Department, AFL–CIO, that revives a duly expired statutory provision is inconsistent with the statutory requirements of the Clean Water Act and an inappropriate extension of EPA authority.

We strongly urge the EPA to give consideration to these comments and withdraw from the proposed settlement agreement. We appreciate the opportunity to comment. If you should have any questions regarding our comments, please feel free to contact me at (405) 530–8800.

Sincerely,

DUANE A. SMITH,
Executive Director.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY,
August 3, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Environmental Protection Agency,
Washington, DC.

Re: Proposed Settlement Agreement, Application of Labor Standards Provision in the Clean Water Act State Revolving Fund Program, FRL–6720–5

DEAR MR. COOPER This letter is to comment on the Proposed Settlement Agreement between EPA and the Building and Construction Trades Department, AFL/CIO.

The Proposed Settlement Agreement will reinstate the Davis-Bacon Act on projects funded through Oregon's Clean Water State Revolving Fund. There will be no increase in protection to Oregon's workers as a result of this settlement. They already have the same protection from Oregon's prevailing wage law. However, the Proposed Settlement Agreement will place an unnecessary burden on small Oregon municipalities

Oregon's prevailing wage law (ORS 279.348 et seq.) requires that prevailing wages be paid on public works projects. In many cases, the prevailing wage determined by Oregon's Bureau of Labor and Industries is slightly higher than the Federal determination.

Oregon's prevailing wage law is simpler, easier to understand, and easier to comply with than Federal law.

For example, under Oregon's prevailing wage law, the public agency soliciting bids must inform the contractor or subcontractor that prevailing wages must be paid on the project. This Statement may be made by the public agency in either the advertisement for bids, contract specifications, or the accepted bid.

Under Davis-Bacon, the public agency must supply all bidders with the applicable wage determinations (including any changes made up to 10 days in advance of the bid openings) and include those determinations verbatim in the construction specifications and the contract.

Davis-Bacon wage rates are not readily available. One professional in this field has referred to them as "the Federal Governments best kept secret." On the other hand, Oregon's prevailing wages may be downloaded from the Bureau of Labor and Industries web site, *www.boli.State.or.us.*

Under Davis-Bacon, once the project is underway, the public agency must review weekly payroll reports from both the contractors and subcontractors. These payroll reports must be retained by the public agency for 3 years. The public agency must also conduct job site interviews to verify payroll information.

Under Oregon's prevailing wage law, when the bid is awarded, the public agency must notify the Bureau of Labor and Industries. The contractor and subcontractors must then tender certified payroll reports at 90-day intervals. The contractor and subcontractor must retain these reports for 3 years.

The public agency need not conduct on the job interviews in Oregon. Instead, the Bureau of Labor and Industries has the right to inspect the job site and the contractors premises at any time.

Oregon's prevailing wage law is based on 3 assumptions: (1) that small municipalities have neither the resources nor the expertise to serve as wage police; (2) that

the State's Bureau of Labor and Industries does have the resources and the expertise; and (3) that the payment of prevailing wages is fundamentally the responsibility of the contractor.

Oregon's prevailing wage law is easier to understand and simpler to comply with; hence, it is more efficient in operation. Moreover, it does not place an administrative burden on small municipalities, the primary beneficiaries of Oregon's Clean Water State Revolving Loan Fund.

If you have any questions, I may be reached at 503–229–6412.

Sincerely,

TOM MEEK,
Program Lead, Clean Water State Revolving Fund.

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY,
DIVISION OF WATER QUALITY,
July 12, 2000.

GEOFFERY COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

SUBJECT: Proposed Settlement Agreement, Application of Labor Standards Provision (Davis-Bacon Act) in the Clean Water State Revolving Fund Program

DEAR MR. COOPER: This is written in response to EPA's solicitation for comment on the proposed settlement agreement between the Agency and the AFL-CIO which would reinstate Davis-Bacon Act requirements into the Clean Water State Revolving Fund (CWSRF) program.

This office, which administers the CWSRF, is opposed to the reinclusion of Davis-Bacon wage rates into "first round" CWSRF loans and believes EPA's reasoning in proposing that this be done is flawed.

Utah is a right-to-work State and does not have area-wide wage agreements for the work force. Wages are driven by the local economy and are historically lower in the rural areas of the State than in metropolitan areas. Skills available in a local area depend on the economic activity and population so generally fewer skilled construction workers are available in rural Utah. These factors have allowed CWSRF projects to be constructed more affordably in the rural areas of the State utilizing mostly local contractors. Eighty-five (85) percent of Utah communities currently have populations under 10,000. Nearly three-fourths of loans made since the inception of the Utah's CWSRF program in 1987 have been made to these smaller communities. Thus, it will be the smaller Utah communities which will bear the burden of increased project costs attributable to the imposition of Davis-Bacon wage rates which are higher than the construction wages that otherwise would be paid on CWSRF projects.

We have polled a number of contractors to determine their reaction to reinstating the Davis-Bacon Wage Act and to determine the cost impact of this proposal. Contractors were generally opposed to EPA's proposal. They expressed concern about the additional administrative burden attendant to complying with the Davis-Bacon Act. This includes the preparation and submission of weekly payrolls, including the identification of the appropriate worker classification, wage rate, fringe benefits, and hours worked in a particular classification. Contractors would be compelled to add a certification requiring; the tedious and time consuming checking of payroll records to ensure the correct wages and fringe benefits are paid. Contractors would need to oversight their subcontractors on Davis-Bacon Act requirements. Contractors would be responsible to keep abreast of the ever-changing wage determinations and bear the risk and associated liability of unknowingly being found in non-compliance with the Act. Further, requiring a contractor to pay more to his employees working on a CWSRE project than to those working on other projects where the local wages paid for comparable classifications are less than the Department of Labor wage determination would create a pay inequity within the contractor's workforce. Contractors prefer to avoid all of these burdens and the increased costs they will have on CWSRF projects.

In the past the published wage determinations for an area did not include all of the job classifications required to staff a project. The contractor would be required to determine the local prevailing wage for the missing work classification and seek approval from the Department of Labor to use the class and rate on the project. This is a costly and time consuming process for the contractor. Without timely response from the Department of Labor the contractor is at risk when paying the pro-

posed rate. If the wage rate the contractor is paying is found to be lower than that the Department of Labor ultimately approves, back wages may need to be paid. This is problematic when a project has already been awarded and is under construction. The contractor has no means of increasing his bid price to recoup these increased costs. The result is that contractors tend to 'pad" their bids to protect themselves in this event, thus further increasing the cost of the project to the community which receives a CWSRF loan.

How will these increased costs affect bids on CWSRF projects? Opinions vary, but all the contractors we spoke with agreed that there will be increased costs which will translate into higher bids on CWSRF projects. Those polled estimated that bid prices would increase from between 8 percent to 15 percent as a result of imposing Davis-Bacon Act on CWSRF projects.

There would also be an administrative burden to the Division of Water Quality if the Davis-Bacon Act were to be reimposed on CWSRF projects. Staff would be required to perform on-site interviews with the work force of contractors and subcontractors to assure that each employee was informed of the job classifications wages and fringe benefits to be paid. On-site employee interviews are a cause of production disruption that increase the cost to the owner and contractor. The appropriate wage determination and modifications would need to be validated. Correspondence would be necessary with the Department of Labor. At a time when only 4 percent of the CWSRE capitalization grant can be used for program administration, which is by all accounts insufficient, we are not looking to perform increased administrative tasks which add nothing to the program.

We are unsure why EPA is persuaded that it has an "independent obligation" to impose CWA § 513 to any grant made under Title VI of the CWA. It is clear that Congressional intent, as demonstrated by the language in CWA § 602(b)(6), was for the 16 Title It requirements (including Davis-Bacon.

We are unsure why EPA is persuaded that it has an "independent obligation" to impose CWA § 513 to any grant made under Title VI of the CWA. It is clear that Congressional intent, as demonstrated by the language in CWA § 602(b)(6), was for the 16 Title II requirements (including Davis-Bacon wage provisions) to apply only to capitalization grants made before fiscal year 1995. It behooves EPA to wait under such time as the CWA is reauthorized to see if Congress wishes to reimpose Davis-Bacon Act requirements on the CWSRF. Under 29 CFR 1.9, Davis-Bacon Act requirements are incumbent upon not only the Federal Water Pollution Control Act but also the Safe Drinking Water Act. If Congress can exempt Davis-Bacon Act provisions from the latter by not including these provisions in the legislation, Congress can also (and did) exempt their application to the former by specifically stating when the provisions would cease to apply.

The proposed settlement agreement States that EPA and the Building Trades have determined that it is in the public interest to resolve this matter expeditiously. We do not feel that it is in the public's interest to impose a significantly higher cost and more administrative burden on CWSRF loan recipients.

EPA's technical summary of the proposed settlement indicates that EPA believes there are benefits to human health and the environment through the imposition of Davis-Bacon requirements on CWSRF projects. In 15 years of experience working in the Construction Grants and CWSRF program, I have seen no evidence to support this contention. EPA suggests that the use of prevailing wages on CWSRF projects will promote a better-skilled workforce and presumably result in higher quality construction. We do not agree with this position. In Utah we believe that contractors will employ the same, only more highly-paid, workforce which will result in higher project costs, not better construction.

The only silver lining to the proposed settlement agreement is that Davis-Bacon requirements would pertain only to "funds directly made available" from capitalization grants rather than to the entire CWSRF. This, however, is not sufficient reason for our office to support EPA's recommendation on this matter. It is our feeling that the program would be better served for EPA to take its chances in court rather than simply acquiesce to pressure from the Building Trades.

Sincerely,

DON A. OSTLER,
Director, Water Quality Board.

IOWA DEPARTMENT OF NATURAL RESOURCES,
August 4, 2000.

GEOFFERY COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

SUBJECT: Proposed Settlement Agreement, Application of Labor Standards Provision in the Clean Water Act State Revolving Fund

DEAR MR. COOPER: The Iowa Department of Natural Resources has reviewed the Proposed Settlement Agreement, Application of Labor Standards Provision in the Clean Water Act State Revolving Fund Program, published in the Federal Register on June 22, 2000, with a 45-day comment period. This transmittal will constitute comments from the Iowa Department of Natural Resources.

The proposed agreement is between the United States Environmental Protection Agency and the Building and Construction Trades Department, AFL-CIO, American Federation of Labor/Congress of Industrial Organizations. The proposed agreement is for the new requirement for application of Davis-Bacon provisions in all EPA Clean Water State Revolving Fund loan capitalization grants made to States after January 1, 2001. The Iowa Department of Natural Resources wishes to advise EPA that the proposed agreement exceeds the authority of EPA in the Clean Water Act. EPA should reconsider its negotiated position for the following reasons.

1. Section 602(b)(6) of the Clean Water Act dearly applied the specific Title II requirements and Section 513 of Title V to projects constructed in whole or in part before FY1995 with funds directly made available by capitalization grants. The lack of Congress' reauthorization does not change this provision. In fact, the lack of reauthorization reinforces it. There has been every opportunity to extend these specific requirements. Congress has not taken it. The appropriations Congress has made for national allotments for State capitalization grants also could have been conditioned. They have not. The clear wording of 602(b)(6) makes the decision a Congressional one, not an agency one.

2. All the provisions in Section 602(bX6) expired in FY 1995. EPA selectively choosing one to be reinstated out of a long list clearly goes beyond the authority of the statute. We see no reason that one provision in Section 602(b)(6) would be legally applicable and not the others listed in the same sentence. EPA's 1995 memorandum on the section was correct. The June 22, 2000, publication does not present any basis for a conclusion that Section 513 imposes a continuing independent obligation on the agency to apply or reinstate Davis-Bacon requirements. If it did, EPA has violated the statute since FY1994 and waiting to reinstate it in January, 2001 would be inappropriate. EPA has subrogated its authority by its new "persuasion." It should remain with its admitted "reasonable legal interpretation." If Section 513 created an independent authority, it would not have been necessary for the statute to list 513 as an equivalency requirement in Title VI. The interests of the building trades do not override the wording of the statute.

3. For several years after FY 1994, EPA staff questioned why Iowa rules continued to apply equivalency requirements. The State's response was that the Clean Water Act was subject to reauthorization and the equivalency requirements could be readily reinstated with reauthorization. Rulemaking procedure in Iowa is a lengthy process and reinstatement of Federal requirements would confuse and complicate. So it was several years before Iowa rules removed the equivalency requirements from the Iowa program. It finally became obvious that either Congress was not about to reauthorize in the near future, or if they did, extending the equivalency requirements was not likely. If congressional intent is a concern at all, we merely have to observe what happened in the Drinking Water SRF statute, where Davis-Bacon is specifically not required.

4. There are practical reasons for not reinstating Davis-Bacon provisions. There would be confusion and controversy in States' administration of SRF programs. Section 513 would clearly only apply to project funds directly made available by capitalization grants. As State SRF programs mature, a significant amount of the projects funded are with other funds. The differentiation of requirements for projects based on their source of funds is arbitrary and will cause unnecessary confusion and competition for "non-cap grant funds." EPA policy for the SRF program for many years has been "maximum State discretion." EPA's current persuasion will create undue burden on the State and loan recipients. EPA Statements that projects receive more competent construction when Davis-Bacon requirements are applied are unsupported. There is, however, little controversy that they do cost more, therefore lim-

iting the use of available funds in the program to fewer projects. There are also reports that the increased costs do not go for increased wages in the trades. States have tried hard to make SRF programs attractive. The elimination of equivalency requirements according to Section 602(b)(6) greatly assisted in making SRF financing attractive and competitive with conventional municipal financing.

EPA's original interpretation of the applicability of Section 602 requirements was done by memorandum. The interpretation seemed clear and logical. We appreciate EPA's openness allowing comments on a proposed settlement agreement and the obvious uncertainty existing in EPA's current position by requesting comments. It is unfortunate that the input of State as major stakeholders with EPA was not sought in negotiations that have apparently occurred.

We consider the Proposed Settlement Agreement to be an inappropriate EPA decision for the above reasons. Please consider the comments received from States carefully in your final decision.

You may follow up with questions by response to this e-mail or by contacting me at 515/281–8877.

Sincerely,

WAYNE FARRAND,
Supervisor, Wastewater Section.

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY,
July 17, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: State of Montana WPCSRF Public Comment Federal Davis-Bacon Wage Issue

DEAR MR. COOPER: As program manager of the State of Montana's Water Pollution Control State Revolving Fund (WPCSRF) Loan Program I would like to provide public comment on the draft settlement agreement between EPA and the Department of Labor regarding the Federal Davis-Bacon Wage issue. Currently both of Montana's SRF loan programs (WPCSRF and Drinking Water SRF) use the Montana Statewide Prevailing Davis-Bacon Wage Rates. The State Davis-Bacon wage rates are very similar to the Federal Davis-Bacon rates. However, the State rates are much easier to administer. The State rates do not change very often while the Federal rates change quite frequently. The process for implementing and using the State's rates is very streamlined. Also, when projects have other State or local funding, the SRF programs are using the same rates as these other programs for work procured under State of Montana law. In summary, there is very little difference in substance between the Federal and State Davis-Bacon wage rates, but procedurally the State rates are much easier to implement.

Another concern we have is that the draft settlement applies only to the Clean Water SRF program and not the Drinking Water SRF programs. We have worked hard to maintain consistencies between the two programs and actually use the same specification insert for both funding programs. We would prefer that State Davis-Bacon Wage rates be allowed for the CWSRF programs.

In summary, Montana's WPCSRF Loan Program would prefer the flexibility to continue to use Statewide Prevailing Davis-Bacon Wage Rates. This will allow for a more streamlined program and provide consistency between SRF programs.

If you have any questions please give me a call at 444–5324.

Sincerely,

TODD TEEGARDEN,
WPCSRF Program Manager, Technical and Financial Assistance Bureau.

STATE OF LOUISIANA, DEPARTMENT OF ENVIRONMENTAL QUALITY,
July 31, 2000.

GEOF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: Proposed Settlement Agreement, Application of Labor Standards Provision in the Clean Water Act State Revolving Fund Program (CWSRF)

DEAR MR. COOPER: My staff in the Clean Water State Revolving Fund program and I have carefully reviewed the proposed Settlement Agreement and the accompanying documents. I must convey my complete opposition to any action by EPA that would re-impose the Davis-Bacon Act provisions on the CWSRF program.

Louisiana is one of the nineteen States that do not have State prevailing wage laws. We experienced great difficulty in getting the loan program started because of the extra expense on borrowers caused by the Davis-Bacon Act requirements. A number of potential borrowers simply walked away from the SRF program because they could sell bonds on their own and build their project without Davis-Bacon more cheaply than they could if they borrowed from us, even though we offered a substantially lower interest rate. We even held up making binding commitments on some loans until FY 1995 to avoid the Davis-Bacon Act requirements.

Re-imposition of the Davis-Bacon Act on new capitalization grants would again make it difficult to market the program in Louisiana. We would be forced to lower interest rates even below their present low rates in an effort to keep some of the potential borrowers that are now interested in the program. This would certainly jeopardize our ability to "maintain the fund in perpetuity' which the law requires us to do.

We can find no language in either section 513 or section 602(b)(6) of the Act that would allow EPA to impose the Davis-Bacon Act requirements as a condition of future capitalization grants. Section 513 is very clear that the Davis-Bacon Act is applicable to ". . . treatment works for which grants are made under this Act . . ." EPA's view that section 513 applies to any grants made under the CWA for treatment works, including capitalization grants made under title VI is not correct.

A capitalization grant made by EPA to a State is a grant to capitalize the State's CWSRF and is not a grant to construct a treatment works. States make loans, not grants, to local governments, and a loan made by a State to a local government for construction of a treatment works is not a grant made under the Act.

Likewise, the language in section 602(b)(6) is also very clear. The sixteen requirements listed there all expired on October 1, 1994 including the requirement to comply with section 513. Congress was aware that some loans resulting from funds directly made available by FY 1994 (and in some cases earlier) capitalization grants would be exempted since States do not enter into binding commitments immediately after the capitalization grant is awarded. Had it been the intent of Congress to apply Davis-Bacon to all capitalization grants, it would not have included Section 513 in the sunset provision of section 602(b)(6).

Furthermore, the Davis-Bacon Act does not apply to the Drinking Water Revolving Loan Fund (DWRLF), which was authorized by the Safe Drinking Water Act Amendments of 1996. We believe that Congress never intended to apply this requirement to one funding program and not the other; but knew that it had already expired in the CWSRF and deliberately left it out of the DWRLF so it would then not apply to either program.

Re-imposition of the Davis-Bacon Act on new capitalization grants would not only make it difficult to market the program in Louisiana; it would also impose an undue burden on local governments, many of which are struggling to find the necessary funds to make improvements to their treatment works and stay in compliance with the enforceable requirements of the Act. We do not accept EPA's argument that the use of prevailing wage may result in fewer accidents, mistakes, and cost overruns during construction, reduced O&M costs, and a longer operational life for the treatment works. We have seen over two hundred projects constructed with construction grants and early SRF loans that were subject to prevailing wage requirements; and at least as many projects undertaken by local governments on their own without prevailing wage requirements. We can see no significant difference in the quality of construction between the two. What we have seen, in many cases, is a merit shop contractor forced to pay higher wages to the same workers that would have constructed the project in any case. The local government must pay this increased cost but gets nothing in return for it.

We predict that re-imposition of Davis-Bacon Act requirements to the CWSRF would be counter-productive to our efforts to assist local governments achieve and maintain compliance. Forcing local governments to pay higher costs than necessary to construct improvements or new treatment works will result in more communities downsizing projects, deferring construction, and/or requiring their consultants to skimp on quality to reduce costs. The end result will likely be a lower level of compliance in those States that do not have State prevailing wage laws.

We would like to leave you with one last thought. Michael J. Quigley, Director of the Municipal Support Division, EPA Headquarters, Stated in a June 8, 1994 memorandum to Myron Knudsen, Director of the Water Management Division, EPA Region 6, that "Under the accepted rules of statutory construction, where the language of the law is clear, there is no need to consult the legislative history. Indeed, legislative intent cannot be used to 'reinterpret' the plain meaning of statutory language." This is a case where the language in the law is clear and any attempt to "reinterpret" its meaning would not only be inappropriate, it would be plain wrong.

We would like to thank you for the opportunity to comment on the proposed Settlement Agreement and sincerely hope that you understand our concerns and will not pursue it further. If that is not the case, we will request assistance from our Congressional delegation to support our position.

Sincerely,

J. DALE GIVENS,
Secretary, Louisiana Department of Environmental Quality.

TEXAS WATER DEVELOPMENT BOARD,
July 7, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: Proposed Settlement Agreement Application of Labor Standards Provisions in the Clean Water Act State Revolving Fund Program

DEAR MR. COOPER: The following comments are in response to the referenced notice published in the *Federal Register* on June 22, 2000.

We object to the proposal to reinstate the prevailing wage rate requirements of the Davis-Bacon Act for federally assisted projects in the Clean Water Act State Revolving Fund (CWSRF) Program. These requirements will impose *new* requirements on CWSRF borrowers in some States, and *different or changed* requirements for loan recipients in those States with requirements similar to the Davis-Bacon requirements. The requirements will require additional effort on the part of borrowers, and may delay needed construction start dates in instances where project specific wage rates are required. Project delays will have the most pronounced impact on the more urban areas, where project specific rates are the norm. Overall, the new requirements will have the greatest adverse impact on the smaller community borrowers. These borrowers already bear the burden of higher per-capita project cost, so additional efforts, costs and delays may inhibit such communities from accessing the CWSRF.

In addition to the impact on CWSRF borrowers, the new requirements will create additional burdens on the States administering the CWSRF program. States will have to create the infrastructure necessary to educate borrowers, assist in acquiring wage rates, and track and report compliance. For some States, rule making will be required. These new activities will take time to implement and utilize administrative funds which could otherwise be better used to fund projects to further the goals of the Clean Water Act. Implementation, itself will require the expenditure of significant funds and amounts of effort. .

Finally, if the proposed agreement is adopted, we find the January 1, 2001 implementation date completely unacceptable. As EPA is aware, States must prepare seek public input on and adopt an Intended Use Plan each year, *prior to being able to submit a capitalization grant application.* The Intended Use Plan process alone may require 6 to 12 months to complete, and is already in progress, in most States, in anticipation of receiving capitalization grants after January 1, 2001. As a result, the potential borrowers of funds made available from these capitalization grants may have already been identified and subjected to a public participation process. Imposition of the January 1, 2001 implementation date has the effect of changing the rules of the game for these players, while the game is in progress. For some

States, this may require re-notice and repeating much or all of the fiscal year (FY) 2001 Intended Use Plan process. For States like Texas, which are already well into the FY 2001 Intended Use Plan process, a requirement to re-notice applicants could create a 6-month or more delay which would suspend the CWSRF program until the Intended Use Plan process were completed. This issue, coupled with the implementation time that will be required of the States, makes the January 1, 2001 date totally unrealistic. We suggest that implementation be delayed until after January 1, 2002.

We strongly urge that EPA give consideration to these comments. We appreciate having the opportunity to offer comment. If you have any questions regarding our comments, please feel free to call me at (512) 463–7848.

Sincerely,

CRAIG D. PEDERSON,
Executive Administrator.

June 22, 2000.

To: GEOFF COOPER
cc: Angela Cracchiolo; Dorothy Rayfield; Conny Chandler

Subject: Proposed Settlement Agreement

Mr. Cooper, I am responsible for administering the Clean Water SRF program in North Carolina and would like to comment on the proposed settlement agreement between the EPA and the AFL-CIO.

While I am not a lawyer, it is quite clear to me that Title VI of the CWA specifically states that the Davis-Bacon requirements apply only to projects constructed before fiscal year 1995. It would follow then that any requirement to extend the Davis-Bacon requirements beyond that date would require action by the Congress and not through the interpretation of the EPA.

It has not been my experience that the Davis-Bacon requirements have resulted in higher project costs in NC, but ensuring compliance by loan recipients and contractors does place an unnecessary burden upon the- State at a time when we are finding that the 4 percent limitation on administrative funding is insufficient. I ask that you reconsider your intentions to reinstate these requirements in the absence of a clear requirement by Congress to do so.

Thank you for the opportunity to comment.

BOBBY BLOWE.

DEPARTMENT OF ENVIRONMENTAL QUALITY,
Lincoln, NE.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: Reinstatement of Davis-Bacon Requirements Clean Water State Revolving Loan Program

DEAR MR. COOPER: The Nebraska Department of Environmental Quality has reviewed the Proposed Settlement Agreement, "Application of Labor Standards Provision in the Clean Water Act State Revolving Fund program" between the United States Environmental Protection Agency and the Building and Construction Trades Department, AFL-CIO, American Federation of Labor/Congress of Industrial Organizations.

The proposed agreement is for the reinstatement of Davis-Bacon requirements as a Federal requirement on all EPA Clean Water State Revolving Loan capitalization grants made to States after January 1, 2001. The Nebraska Department of Environmental Quality opposes this agreement due to the following reasons:

1. Davis-Bacon requirements are a carry over of the construction grant requirements and are a part of the Title II Equivalency Requirements of the Clean Water Act. All of these requirements expired on October 1, 1994 by law. Congress has not modified this, therefore EPA does not have the authority to reinstate the Davis-Bacon requirements. Also, if Sec. 513 created an independent obligation of EPA, it would not have been listed in Title VI as an equivalency requirement.

2. We were given to understand from the discussions we have had with EPA that when the Clean Water Act got reauthorized that equivalency requirements would

not be part of the reauthorization process. This has been demonstrated in the recent reauthorization of the Drinking Water Act on August 6, 1996 which authorized the implementation of the Drinking Water State Revolving (DWSRF) Loan Program. Congress chose not to impose the equivalency requirements on the DWSRF program which we also administer.

3. As the name suggests, the revolving loan programs are called the State Revolving Loan Programs. These programs belong to the States unlike the EPA Construction Grants Program which had EPA ownership. The State of Nebraska has no intention of applying equivalency requirements to recycled SRF funds proceeds. The reinstatement of Davis-Bacon will create undue burden to the State in implementing two programs longer than necessary and will also complicate the implementation of the program in future years. Administration of the Davis-Bacon requirements for the State is tedious and time consuming. In several cases in the past, projects have experienced delays because certain trades were not included in wage decisions which meant that the loan and/or grant recipient, had to wait for the Department of Labor in Washington to recognize that trade and provide a wage for that trade.

4. The SRF program is supposed to be a simplified program. It has taken program staff several years to convince the small communities in our State that the SRF program is not as cumbersome as the construction grants program. Also, the State has strived to reduce or simplify as many requirements as possible in order to provide a user friendly program. We are in competition with the commercial bond market which does not have as many requirements. Communities are very conscious of how much it costs to undertake wastewater treatment projects. Budgets are tight and user rates are escalating rapidly. In the State of Nebraska we have only a handful of communities i.e., 11 out of over 500 that have a population of over 10,000 (by EPA definition population of less than 10,000 are considered small). Most small communities do not have the managerial capability to administer the Davis-Bacon requirements. The CDBG program in our State requires that the communities hire a grants administrator to oversee the administration of requirements such as Davis-Bacon. Several thousand dollars are spent to ensure that these Federal requirements are satisfied. The reinstatement of Davis-Bacon will create an undue burden on the small communities in our State.

5. A survey of construction contractors which we conducted several years ago suggested that Davis-Bacon added anywhere from 10–30 percent to project costs in this State. Davis-Bacon in this State was perceived to add to the costs due to the additional record keeping requirements and not because of additional costs due to wages. In order to hire qualified personnel, our survey of contractors had indicated that most contractors paid their employees wages higher than Davis-Bacon. Also, unemployment in general in our State has been very low for the past several years and therefore Davis-Bacon is unlikely to improve wages.

6. This agreement was drafted without the State's input. We consider ourselves to be a major stakeholder and this agreement certainly seems to be a deal which the EPA has negotiated with the AFL-CIO without stakeholder input.

We consider the Proposed Settlement Agreement to be inappropriate for the reasons stated above. Please consider our comments carefully as EPA moves forward on the settlement.

If you have any questions, please contact Gautam "Buddy" Bhadbhade P.E. of my staff at (402) 471–4207.

Sincerely,

MIKE LINDER,
Director.

DEPARTMENT OF ENVIRONMENTAL QUALITY,
Lansing, MI, July 14, 2000.

Mr. GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

DEAR MR. COOPER: This letter is to enter Michigan's strong objection to the proposed settlement agreement with the Building and Construction Trades Department, AFL/CIO reimposing Davis-Bacon Act requirements on the State Revolving Fund (SRF) Program.

This proposed settlement is contradictory to the requirements of Title VI of the Clean Water Act. This is born out by the explicit language in section 602(b)(6) that

imposes certain requirements including Davis-Bacon, only through Fiscal Year 1994. The proposed settlement is an inappropriate, unilateral attempt to circumvent that language and the on-going legislative process to reauthorize the Clean Water Act.

The SRF program is administered by States, yet this major settlement proposal, having far-reaching impacts on the SRF program, was developed by the EPA with no State input. Further, this proposed action will impose added mandates on local governments increasing both administrative costs, as well as financial demand on an already under funded SRF program, with no environmental benefit.

Michigan opposes imposition of this mandate and urges the EPA to withdraw the proposed settlement agreement as it is inappropriate, improper, and most importantly, contrary to Federal law and the legislative process.

Sincerely,

RUSSELL J. HARDING,
Director.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,
July 18, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Subject: Proposed Re-imposition of Davis-Bacon Act Wage Rates on Clean Water SRF

DEAR MR. COOPER: The Colorado Department of Public Health and Environment, Water Quality Control Division, administers the technical aspects of the Clean Water State Revolving Fund (CWSRF) program. Based on our previous experience with the Davis-Bacon Act requirements, prior to October 1, 1994, we are opposed to the re-imposition of this onerous requirement at this time due to the following concerns:

- Our past experience indicates that for small rural construction projects the total project costs increase between 20 percent to 30 percent when Davis-Bacon requirements are imposed. In addition there is no evidence in Colorado to substantiate your claim that the use of prevailing wage rates lead to higher quality construction, best functioning treatment works, long-term cost advantages, reduced O&M costs or longer operational life of treatment works.
- The re-imposition of the Davis-Bacon requirements on January 1, 2001, does not allow sufficient time to notify future loan recipients of this burden and to re-train personnel for implementation. At least a 1-year notice is necessary to properly notify future borrowers and to re-train State and EPA personnel. I would recommend that, if this proposal is implemented, that the regulation not be made final until after January 1, 2001, and that the requirement not be imposed until January 1, 2002.
- The Act applying to all construction, alteration and/or repair in excess of $2,000 appears outdated. At a minimum, the amount should coincide with the value of the single audit act requirement which is currently $300,000.

In conclusion, I believe the Davis-Bacon requirements if re-imposed, will be a costly burden-to rural Colorado borrowers endeavoring to improve water quality in their area and to the State in administering these requirements.

I trust you will give serious consideration to our comments and drop the re-imposition of these requirements, but at the very least, delay the adoption of this regulation until the next year.

Sincerely,

DOUGLAS BENEVENTO,
Director, Environmental Programs,
Colorado Department of Public Health and Environment.

COLORADO WATER RESOURCES & POWER DEVELOPMENT AUTHORITY,
July 21, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Re: Proposed Re-imposition of Davis-Bacon Act Wage Rates on Clean Water Act SRP's

DEAR MR. COOPER: The Colorado Water Resources and Power Development Authority administers the financial aspects of Colorado's Clean Water State Revolving Fund. We oppose the re-imposition of Davis-Bacon Act wage requirements. First, we do not agree that Section 513 of the Clean Water Act imposes a continuing obligation to include Davis-Bacon Act wage requirements on grants awarded after 1994. It is clearly a policy decision by EPA which will increase the cost of improving water quality in Colorado. Second, Section 319 and 320 projects do not fall under the definition of "publicly-owned treatment works" as defined in the Act and should be excluded from the regulation and the settlement agreement.

We also believe that there imposition of Davis-Bacon requirements as proposed will impair the functioning of the Revolving Funds in improving water quality. Our past experience with Davis-Bacon wage requirements, as applied to the Revolving Funds before FY 1995, indicates that for small rural construction projects, often those most in need of financial assistance, and of great importance in protecting water quality, Davis-Bacon wage requirements increase costs between 15 percent and 30 percent. Such increases may be enough to discourage some communities from undertaking important pollution control projects in a timely manner. At the same time, we have seen no evidence in Colorado to suggest that the imposition of prevailing wage rates leads to higher quality construction, better functioning treatment works, long-term cost advantages, reduced O&M costs, or longer operational life for treatment works.

Moreover, the time-frame proposed for re-imposition of Davis-Bacon requirements is unrealistic. It does not allow sufficient time to notify future loan recipients of this burden, or to retrain personnel for implementation. At least 1 year of advance notice will be needed to notify borrowers and the public through the Intended Use Plan process. Re-training State and EPA personnel will also require 3 to 6 months. Therefore, the regulation should not be made final—before January 1, 2001, and the requirement should not be effective until at least January 1, 2002.

Finally, the trigger for application of Davis-Bacon wage rates to construction work ($2,000) is outmoded. The trigger should be no lower than that for Single Audit Act requirements, currently $300,000, but preferably at least $1,000,000. Such an adjustment would at least lessen the burden of the proposal on some communities and projects, especially small financially distressed communities.

In conclusion, I believe that the imposition of the Davis-Bacon requirements are not justified by a fair reading of the Clean Water Act, and will impose a costly burden on Colorado borrowers (especially normal borrowers already under financial strain) and on the State in administering the requirements, without any commensurate water quality benefits. I hope you will give serious consideration to our comments and drop the re-imposition of these requirements. At the very least, I would urge you to hold public hearings on the proposal around the country, so EPA policymakers can understand fully the burdensome implications.

Sincerely,

DAVID L. LAW,
Executive Director, Colorado Water Resources & Power Development Authority.

CITY OF CAPE CORAL,
Cape Coral, FL, August 4, 2000.

GEOFF COOPER,
Finance and Operations Law Office,
Office of General Counsel,
Environmental Protection Agency,
Washington, DC.

Subject: Comment on proposed settlement agreement: EPA—AFL/CIO

Reference: Federal Register-June 22, 2000 (Volume 65 No. 121) Notice of proposed Settlement Agreement between the Agency and AFL/CIO (Building Trades)

DEAR MR. COOPER: The City of Cape Coral, a city of 100,000, celebrating our thirtieth anniversary and located in the southwestern part of Florida, is currently in the process of constructing our second phase of the city's utility expansion project. It is the city's intention to apply to the State of Florida for State Revolving Fund financing to accomplish this expansion, which when complete, will provide water, sewer and reuse irrigation water to the majority of our citizens and reduce their dependency on individual wells and on-site septic systems.

Due to the rapid growth being experienced in this region, contractors' and subcontractors' construction tradespeople are receiving wages that often exceed those published as Davis-Bacon Prevailing Rates. By the imposition of the Davis-Bacon Act, and the significant documentation required to comply with the Act, the contractors, the city, and eventually our taxpayers would incur added project performance costs with no added benefit to either the individual taxpayer or the construction trades person.

The city is quite concerned about this added administrative burden, and therefore the cost, to be placed upon the citizens of Cape Coral should this proposed settlement agreement become effective. The city of Cape Coral urges the EPA to carefully evaluate the perceived benefits that the Davis-Bacon Act is purported to provide against the added burden placed on small municipalities using SRF funding, such as Cape Coral, and decide to withdraw from this proposed settlement.

Very truly,

S.W. DAIGNAULT, P.E.,
City Manager, City of Cape Coral, FL.

STATEMENT OF ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

INTRODUCTION

The Association of Metropolitan Sewerage Agencies (AMSA) represents the interests of more than 250 publicly-owned treatment works (POTWs). AMSA's members treat 18 billion gallons of wastewater every day and provide service to the majority of the United States' sewered population.

Last week, over a million consumers were plunged into darkness in California as the Nation's energy crisis deepened. As rolling blackouts crippled homes and businesses, officials begged citizens to reduce their demands. Imagine what will happen when the Nation's water and wastewater systems begin to fail. Like California's electric utilities, the Nation's wastewater systems are facing an infrastructure crisis. Unlike power providers, the failure of wastewater systems could create a public health emergency, cause widespread environmental degradation, and lead to an erosion of our local economies.

America needs to spend an additional $23 billion a year for the next 20 years to repair and replace aging pipes and to meet current and future water quality regulations. Is that an outrageous amount? No—not if you consider the investment we already have made in our water and wastewater systems and the fact this is the *first* big replacement cycle our country has had to face in the water and wastewater utility sector.

America's water and wastewater infrastructure systems are national assets that yield dividends to all citizens in the form of healthy natural ecosystems, healthy people free from waterborne disease, and a healthy and growing economy. The public trust in clean and safe water is unwavering. Every day, Americans rely on clean water for recreation, commercial fishing, and a wide range of industrial activity. These activities generate billions of dollars in income every year, none of which would be possible without clean water. Inadequate capacity to treat wastewater or supply clean water can cripple a local economy, drive manufacturing out of communities, and wipe out tourism.

We face financial challenges in the water sectors today that far exceed historical investment patterns. While national resolve to improve the economy, public health, and environmental integrity are at an all-time high, one of our most successful strategies to accomplish these goals—adequate and efficient wastewater systems for all Americans—is at risk of failure because of inadequate investment. Water and wastewater systems are the heart and soul of every American community. Would we have built roads, bridges, and airports in communities that could not provide clean and safe water? The answer is simply . . . no. The documented needs of the water and wastewater community cannot—and should not—be disputed.

Studies performed and released by the U.S. Environmental Protection Agency (EPA) and the private sector have reached the same conclusion: the needs of our cities, counties, and towns exceed the financial capacity of our local governments and ratepayers. They simply cannot bear the financial burden alone. Today, we're asking Congress once again to make water infrastructure funding a national priority.

PUBLIC INVESTMENT NEEDS AND ACHIEVEMENTS

As documented in *Clean and Safe Water for the 21st Century: A Renewed National Commitment to Water and Wastewater Infrastructure,* published in April 2000 by the Water Infrastructure Network (WIN), America's water and wastewater systems face an estimated funding gap of $23 billion a year between current investments in infrastructure and the investments that will be needed annually over the next 20 years to replace aging and failing pipes and to meet the mandates of the Clean Water Act (CWA) and Safe Drinking Water Act. This unprecedented level of investment will face significant competition within local budgets from operating and maintenance costs that are escalating by 6 percent a year above the rate of inflation. Current Federal contributions cannot help since they have declined by 75 percent in real terms since 1980 and today represent only about 10 percent of total outlays for water and wastewater infrastructure and less than 5 percent of total water and wastewater outlays.

Our needs are great because our systems are at a critical juncture in their life cycles. A combination of reduced Federal spending and increased Federal mandates to meet treatment requirements is taking its toll. The collective aging of our pipes and systems further compounds our ability 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. The useful life of these pipes 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 providing clean and safe water services.

About a trillion dollars of the public's money was spent on capital expenditures and on the operation and maintenance of the Nation's drinking water and wastewater systems during the period between 1956 and 1992. The gains in water quality realized by this investment have been significant. Effluent discharges have fallen by half since 1970, despite the fact that waste loads grew by more than a third due to population growth and an expanding economy. However, these environmental achievements are now at risk. According to a U.S. EPA report entitled *Progress in Water Quality* (June 2000), "without continued improvements in wastewater treatment infrastructure, future population growth will erode away many of the CWA achievements in effluent loading reduction." By the year 2016, the report projects that biological oxygen demand loading rates could rise to the same levels that existed in the mid-1970s, only a few years after the CWA was passed.

CINCINNATI AND HAMILTON COUNTY, OHIO NEEDS

ln 1987, the Metropolitan Sewer District of Greater Cincinnati (MSD) of Greater Cincinnati initiated county-wide studies to identify solutions to combined sewer overflow (CSO) problems. The studies resulted in system capacity increases and constructed solutions, and have been expanded to include sanitary sewer overflows (SSO). Last year, MSD performed an in-house estimate of the costs involved in addressing its current collection system needs. The figures so alarmed District management that MSD officials elected to engage a consulting engineering firm to perform an independent analysis of the needs. Remarkably, the two studies arrived at very similar conclusions and provided municipal officials with a high degree of confidence in their accuracy.

Exclusive of normal operations and maintenance costs and the routine/planned rehabilitation efforts of an aging system, which the community now supports, the new design/construction necessary to alleviate the CSO and SSO problems amount to somewhere between $1 and $3 billion.

Currently, the user charges in affect for MSD are in the middle of the pricing range when compared to those of the surrounding 67 utilities. However, in order to meet the obligations currently imposed upon it by the Federal Government, MSD will be forced to increase its user charge rate by approximately 7 percent per year for each of the next 15 years, assuming the problem can be solved with one billion dollars worth of design and construction. This would multiply the existing rate by nearly three fold (276 percent).

Taking a more conservative view of how the pending SSO regulations might impact the utility, costs may rise to $3 billion for design and construction. That would

result in rate increases of 21 percent per year for 15 years. This would multiply the current rates seventeen times (1,750 percent).

It is important to note that MSD's ratepayers have been paying the full cost of service since 1968. Like nearly all major wastewater utilities, MSD is a stand-alone enterprise that does not receive subsidies from other governmental units via property tax contributions or payments whose source is a different taxing authority. Hamilton County ratepayers pay the true cost of wastewater collection and treatment in their quarterly bills.

In 2000, MSD of Greater Cincinnati's rates were increased by 9.5 percent. In 2001, Hamilton county enacted another MSD rate increase of seven percent. Hamilton County Commissioners are preparing to consider yet another 7 percent rate hike for the coming year.

When the Commissioners find that they can no longer raise fees at this alarming rate, the U.S. EPA will begin imposing fines on Hamilton County for water quality rule violations. The monies which might have been spent improving environmental quality and protecting public health will go, instead, to the Treasury Department. We then can expect the U.S. Justice Department to intervene and initiate civil and criminal proceedings against local jurisdictions and officials for violations of the Clean Water Act. Without additional assistance, the enormous rate increases cited earlier will be imposed on city and county users. The magnitude of the increases is expected to cause economic distress in all sectors of the County. Especially hard hit will be lower income households. We also anticipate a loss of jobs and revenue as businesses flee to localities with lower rates. As the population shrinks, MSD will lose revenue, forcing rates even higher.

It is a fact that the use of traditional user fees to fund capital improvements to replace aging infrastructure and meet additional treatment requirements will be severely constrained. MSD is just one of tens of thousands of cities, counties and towns that are facing a financial need of crisis-proportion. Every older Northeast and Midwest city has aging infrastructure and faces the challenge of eliminating CSOs and SSOs. Every major U.S. city, including those without combined sewers, are quantifying the size and costs of their rehabilitation needs.

NEW EFFICIENCIES THROUGH COMPETITIVENESS

Public water and wastewater utilities have provided Americans with some of the best water service in the world. There is little disagreement that public investments in water and wastewater systems pay substantial dividends to the environment, public health, and the economy. However, the provision of water supply and wastewater treatment services is highly capital intensive, significantly outpacing telephone, gas and electric services. Local control of such an essential service as wastewater treatment is of great value to the Nation's consumers. So city and town mayors and councils have empowered water and wastewater managers to innovate and modernize utilities in order to deliver more efficient service. By reinventing ourselves through efficiency initiatives such as improved maintenance, better technology, and new labor-management partnerships, we have achieved efficiency gains at least as dramatic as anything offered by the private sector.

Public utilities must be able to plan and optimize the maintenance and replacement cost cycles for their infrastructure assets in order to minimize costs and maximize performance. Added incentive for a shift to a more measured planning approach can be found in the June 1999 changes to financial accounting and reporting standards issued by the Governmental Accounting Standards Board for State and local governments (known as GASB 34). These sweeping changes require governments to soon begin reporting depreciation of their assets or to implement an asset management system. Under the standards, any asset management system utilized by a government must result in an up-to-date inventory of infrastructure assets, the undertaking of condition assessments of assets, the development of annual estimates of the funds necessary to maintain the assets and provide documentation that assets are being preserved.

Implementation of asset management practices and programs at public water and wastewater utilities carries with it numerous benefits. The initiation of such a program serves to highlight the economic importance of infrastructure, to increase the recognition of the costs of infrastructure and enables a community to control and potentially reduce the costs of assets required to meet service objectives. Some estimates suggest that the potential exists for a 20 percent savings when the current capital investment approach is abandoned and an asset management approach is implemented. This 20 percent savings has been factored into WIN's estimates in both the *Clean and Safe Water* report and the new *Water Infrastructure Now: Recommendations for Clean and Safe Water in the 21st Century (WINow)* report.

SOLVING THE PROBLEM THROUGH A FISCAL PARTNERSHIP

Elected officials, businesses, and residents of our nation's communities agree that local revenues are insufficient to address current and future problems. The financial impact of replacing the underground system of collection pipes and updating treatment systems with 100-year old components dating back to the early 1800s is staggering. Even though our wastewater infrastructure is "out of sight," it no longer can stay "out of mind."

Local utility managers have faced the growing pressure to plan for future needs for years. But only now is the water infrastructure crisis creeping into national consciousness. Why the delay? The size of the problem was not quantified earlier. We, and our predecessors, knew the cost would be large. As we began to individually quantify our needs, they were so enormous that very few of us were willing to discuss them in public, much less engage a national debate on how to fund such enormous needs.

The challenge of closing the water infrastructure financing gap can be met, but not without a substantial and concerted effort by the Federal Government to join with local communities and consumers in a fiscal partnership. To bridge the investment gap, the Federal Government should meet localities halfway by authorizing an average of $11.5 billion per year in capitalization funds over the next 5 years. States would receive the funds and, in turn, offer grants and loans to local agencies. The *WINow* report, released last month, and endorsed by over 30 nationally-recognized organizations recommends that Congress pass and the President budget for and sign legislation that would:

- Create a long-term, sustainable, and reliable source of Federal funding for clean and safe water;
- Authorize capitalization of the next generation of State financing authorities to distribute funds in fiscally responsible and flexible ways, including grants, loans, loan subsidies, and credit assistance;
- Focus on critical "core" water and wastewater infrastructure needs and nonpoint source pollution;
- Streamline Federal administration of the funding program and encourage continuous improvement in program administration at both the Federal and State levels;
- Adequately finance strong State programs to implement the Clean Water Act and the Safe Drinking Water Act;
- Establish a new program for clean and safe water technology and management innovation to reduce infrastructure costs, prolong the life of America's water and wastewater assets and improve the productivity of utility enterprises; and
- Provide expanded, targeted technical assistance to communities most in need.

AMSA and other stakeholders recognize that no single solution addresses the full range of water and wastewater infrastructure funding needs. All levels of government and the private sector must share responsibility for effective, efficient, and fair solutions.

CONCLUSION

Although significant progress has been made in cleaning up the Nation's polluted waters over the past 30 years, much remains to be done. This debate is about preserving public health, environmental progress and the economic viability of our Nation's communities.

This debate is also a financial one . . . about how to fund a new, comprehensive financing program for the 21st century that will allow State and local governments to address water and wastewater problems on a watershed basis. In an era of unprecedented Federal surpluses, we can't think of a better investment than the health of our citizens, the integrity of our environment and the economic well-being of our communities. We agree with President Bush . . . our citizens deserve a refund. It's time that some of our hard-earned Federal tax dollars—just a small portion of the Federal surplus—be reinvested in the water and wastewater systems in our local communities.

As part of AMSA's testimony, attached please find a list of commonly-asked questions and answers. Among other things, it provides the source of the needs figures presented in the WIN report, explains the differences between EPA's needs survey and the WIN report, addresses rates, grants and O&M costs. A copy of the *WINow* report also have been provided to you.

We look forward to working with the subcommittee in finding solutions to our national water infrastructure crisis. Please call Ken Kirk at (202) 833–4653 if you have any questions.

RESPONSES OF ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

Question 1. What is the source of the needs figures presented in the WIN report, Water Infrastructure Now: Recommendations for Clean and Safe Water in the 21st Century?

Response. Water and wastewater funding needs figures in this report come from WIN's previous report, Clean and Safe Water for the 21st Century. Those figures came from the U.S. EPA, the U.S. Bureau of the Census, the American Water Works Association, the Association of Metropolitan Sewerage Agencies, and the Water Environment Federation. More detail is presented below:

Historical capital and O&M Spending: U.S. Bureau of the Census[1]

Projected O&M Needs: trend-line projections of recent O&M spending patterns from the U.S. Bureau of the Census, reduced to assume that operating efficiencies of 20 percent are captured over a 10-year period.

Projected Capital Needs: U.S. Environmental Protection Agency (water and wastewater needs surveys; Office of Water revised estimate of SSO needs), WIN's estimate of wastewater asset replacement, and AWWA's estimate of water asset replacement.

For water supply, replacement costs are taken from a recent analysis undertaken by the American Water Works Association.[2] This method uses a simulation model to project the future costs of replacing distribution systems at then-current costs.

Wastewater assets were assumed to be replaced once they exceeded their useful lives. Historical data on municipal expenditures for wastewater capital facilities like treatment plants, collection systems, and pumping stations and other fixed assets like vehicles, machinery, and equipment were accumulated into annual values of total capital stock—essentially the value of the Nation's wastewater infrastructure. These estimates of capital stocks or capital "assets" were then depreciated by asset class, according to average lives within each class—50 years for sewers and collection systems, 25 years for treatment facilities, and 10 years for other assets (one 27-year depreciation period averaged across the mix of assets "in the ground" over the past several decades). Annual costs of replacement, then, is equal to annual values of depreciation. This method was originally developed by the U.S. Department of Commerce for a congressionally-mandated infrastructure council in the 1980's.[3]

U.S. EPA Needs Survey estimates were reduced to avoid double counting associated with the cost of replacing water and wastewater assets as derived above.

Question 2. Why are these numbers different than EPA's Needs Surveys?

Response. EPA estimates needs pursuant to both the Clean Water Act and Safe Drinking Water Acts as the costs to local governments of meeting the objectives of the acts. Accordingly, EPA's needs estimates cover only the costs to comply with statutory and regulatory requirements, which principally derive from investments needed to comply with individual regulations governing the quality of effluent and biosolids under the Clean Water Act and drinking water purity under the Safe Drinking Water Act. Regulations pursuant to each act and administrative procedures governing the collection of needs estimates further restrict the definition of a "need" under the EPA Needs Surveys.

WIN, on the other hand, took the perspective of the local providers of water and wastewater services, who have to make the investments captured under the EPA Needs Surveys plus other investments to deliver reliable and adequate quantities of services consistent with demands of people living within the areas they serve. From the local perspective, total capital outlays needed to stay in business and deliver expected levels of service exceed—sometimes dramatically—needs to remove X mg/l of a single contaminant from a wastewater discharge. So, in addition to investments needed to meet eligible categories under the Clean Water Act and Safe Drinking Water Act, WIN's needs estimates included investments to replace aging and failing infrastructure. Local capital investment budgets must meet both types of investments.

Question 3. Is there any evidence at the utility level that needs are higher than projected by EPA and that rates will, indeed double or more in the future?

Response. Yes. Based on recent analyses of 18 water and two wastewater utilities, the American Water Works Association has demonstrated that asset replacement

---

[1] U.S. Department of Commerce, Bureau of the Census, Government Finances data series.

[2] American Water Works Association, *Infrastructure Needs for the Public Water Supply Sector*, prepared by Stratus Consulting, December 22, 1998.

[3] U.S. Department of Commerce, Office of Economic Affairs, "Effects of Structural Change in the U.S. Economy on the Use of Public Works Services," September 1987, prepared for the National Council on Public Works Infrastructure.

needs at these utilities tracks closely the order of magnitude differences between WIN's national estimate of total needs and EPA's estimates of needs to comply with the Clean Water and Safe Drinking Water Acts. To accommodate these future investments in infrastructure replacement, on average, these 20 water and wastewater systems will have to increase real investment by a factor of 2.5 between 2000 and 2020.

Question 4. What purpose will these future infrastructure replacement investments serve?

Response. Future replacement of water and wastewater infrastructure will serve these purposes: maintenance of service levels, protection of public health, and environmental improvement.

Question 5. Why are future replacement costs for water and wastewater infrastructure so much higher than current costs?

Response. By its nature, infrastructure wears out. In the water and sewer sectors, the major investments in infrastructure (pipes, plant, pumping stations, etc.) took place around the turn of the century, around World War I, and around World War II. In the 1970's and 1980's, the Nation invested heavily in new wastewater treatment plants and water supply treatment facilities. In many locations, the original investments in infrastructure are only now beginning to wear out and in some locations, infrastructure put in pace in each of these successive periods is all wearing out more or less, at the same time over the next 10–30 years. As a nation, we have never faced the replacement of these infrastructure assets since the oldest pipes lasted 100–120 years.

Question 6. Why will local water and wastewater rates double or more if all needs are met through local rates alone?

Response. Much of the WIN report focuses on capital needs and the financing implications of meeting those needs, but trends indicate that over the next 20 years, all local water and wastewater costs will go up. These trends were documented in two recent reports, the first published by the Association of Metropolitan Sewerage Agencies (AMSA) and the Water Environment Federation (WEF)[4], and the second by the U.S. EPA.[5]

If over the next 20 years, local water and wastewater rates increased sufficiently to cover projected increases in the cost of operations and maintenance, which historically has increased at about 6 percent a year more than inflation, plus the cost of meeting projected capital needs over the same period, local water and wastewater rates would more than double (123 percent real increase over 20 years), on average nationwide.

This estimate does not consider several trends that could increase local costs, and rates, even further, including new capital needs associated with meeting new Federal and/or State regulatory requirements, and increased O&M costs either from aging capital stock or increased levels of treatment.

Question 7. What sort of rate increases will cities experience if WIN's proposed $57 billion Federal funding package is implemented?

Response. Annual household water and wastewater bills would increase by an estimated 81 percent (in real dollars) between 2000 and 2019 if half the future unmet capital needs were funded with Federal grants as opposed to local sources. If only half the Federal contribution to unmet needs is provided as grants and half as market-rate loans, average annual household rates (in real dollars) will just double over the period. Since WIN recommends Federal funding as both grants and loans, with the final proportions of each to be determined by the states, the final effect on average household rates will be somewhere between these two figures, but closer to a 100 percent increase.

Question 8. What is the Federal contribution to total local spending for water and wastewater today?

Response. WIN calculates that the combination of Federal earmarked grants for water and wastewater plus the subsidy in below-market rate loans offered by federally capitalized water and wastewater SRFs accounts for roughly 10 percent of the total local spending on water and wastewater operations, maintenance, direct capital investment, and capital servicing (payments on local water and wastewater bonds and loans).

---

[4] Association of Metropolitan Sewerage Agencies and the Water Environment Federation, The Cost of Clean: Meeting Water Quality Challenges in the New Millenium, 1999.

[5] U.S. Environmental Protection Agency, Office of Water, "Gaps Analysis," 2001.

Local O&M in 1996:[6] $15.3 billion
Local Capital in 1996 (from own sources): $7.9 billion
Federal Capital in 1996 (estimated): $2.5 billion
Total Investment in 1996 (from all sources): $25.7

Question 9. The WIN report assumed that local water and wastewater utilities currently finance capital improvements using a combination of 25 percent cash and 75 percent bonds. Is this expected to change if the Federal program as recommended in the WIN report is implemented?

Response. Yes. Assuming that the current mix of sources of local capital investment is indeed, 25 percent cash and 75 percent debt (this is an estimate in and of itself), the local share of total capital investment would shift marginally toward more debt if the WIN program goes forward. This is because the Federal contribution under the WIN recommendation would come in the form of additional capitalization of State water and wastewater infrastructure banks, which in turn, will make a large portion of these Federal capitalization grants available to local water and wastewater utilities as loans. On balance, this will increase total borrowing and increase the proportion of debt to cash used in local water and wastewater capital financing.

Question 10. What would be the impact of no new Federal investment in water and wastewater infrastructure as WIN has recommended?

Response. Without any additional Federal funding, it is unlikely that investment will be sufficient to meet projected capital needs in all water and wastewater systems across the nation. In relatively new systems, those that are large and growing, and those that serve relatively wealthy populations, rate revenue may well prove to be sufficient to meet all investment needs. Under those circumstances, rates will increase substantially, but in all likelihood, remain affordable.

In small cities, rural areas, and cities with shrinking populations and/or local economies, real water and sewer rates would have to double, triple, or more to meet all needs. This seems unlikely, especially in low-income communities and in older urban core cities where populations have migrated to the suburbs, leaving fewer users to finance replacement of a fixed infrastructure base. Under these circumstances, it would be logical to expect declining service levels resulting in violations of State and Federal clean and safe water requirements and threats to public health, safety, and the environment. In turn, these effects will discourage commerce and community well-being, leading to further population loss, reductions in economic output, and a general worsening of the physical and financial health of water and sewer systems. There would be little to reverse this downward spiral. Inevitably, pressure will be brought to bear on the Federal and/or State Governments for fiscal relief.

In systems facing high regulatory requirements or replacement of the oldest water and sewer infrastructure, these types of effects would be felt within the next 5 to 10 years. Facing a revenue shortfall, water systems will defer maintenance, cut costs (if they can), and deplete reserve funds. These strategies can work only in the short term, since deferred maintenance results in earlier capital replacement needs, only so much operational cost-cutting is possible, and reserve funds typically cannot cover revenue shortfalls for more than a few years.

Question 11. WIN recommends consolidation of existing water and wastewater SRFs into a single State Water and Wastewater Infrastructure Financing Authority, or WWIFA? What is the rationale behind this recommendation?

Response. Currently, about 30 states manage their clean water and safe drinking water SRFs more or less as a single entity. The other 20 states manage two separate SRFs. The concept of a single WWIFA follows the model of consolidated management of both types of investments—those in clean water and those in safe drinking water. Consolidation of management offers two types of benefits: reduced overhead costs per dollar of infrastructure funded and increased public health and environmental protection per dollar of investment funded.

With regard to reduced overhead, the Clean Water Act and Safe Drinking Water Act enable states to set aside 4 percent each of their Federal allocations to their clean water and safe drinking water SRFs. While there is little empirical evidence available, it is clear that a certain portion of any organization's cost base is fixed and the remainder is variable. If, say only 25 percent of the cost of administering an SRF is fixed, then consolidated management of a single WWIFA compared to two separate SRFs would free up 1 percent of total State clean and drinking water allocations for investment in infrastructure as opposed to administration. Under the

[6] All figures from the U.S. Bureau of the Census and expressed in 1997 dollars.

WIN recommendation, the Nation would enjoy some $570 million in additional infrastructure through consolidated management of a single entity compared to two separate entities.

In support of the latter observation, it is not difficult to imagine that upgrading an upstream wastewater treatment plant to produce higher quality effluent would result in reduced treatment needs in a downstream drinking water facility. Similarly, an investment in watershed protection upstream could improve ambient water quality conditions to the point of obviating a downstream investment in nutrient removal at a wastewater treatment plant. Coordinating these investments in the future becomes increasingly important to the extent that WWIFAS finance investments in non-point source controls.

Question 12. WIN recommends that WWIFAs be given broad authorities drawn from those of both the current water and wastewater SRFs. Which authorities in particular are needed for WWIFAs?

Response. The current drinking water SRF is generally considered to be more flexible than the clean water SRF. WWIFAs should have at least the provisions of the drinking water SRFs plus others, as outlined in the WIN report, to enable them to act as broadly enabled banks to the water and wastewater sector. Examples of such flexibility include: ability to provide financing to both public and private owners of water and wastewater utilities, ability to offer financing packages comprised of grants, loans, and loan subsidies to meet the financial capabilities of recipients and address critical public health and environmental concerns, and ability to extend loan terms to 30 years for both water and wastewater investments.

In its report, WIN recommends specifically, that WWIFAs be required to provide between 25–50 percent of each years' Federal capitalization allotment as grants and 10–25 percent of each year's allotment as subsidized loans. These provisions will help ensure that the Nation meets its clean and safe water goals even in economically disadvantaged communities and in communities that face critical public health and/or environmental threats.

Question 13. Doesn't WIN's recommendation for more grants undermine the revolving and leveraging attributes of today's Federal financing program?

Response. Absolutely not. In fact, WIN's recommendations will accelerate the pool of funds available in perpetuity for additional revolving loans. Even if Congress required WWIFAs to set aside the maximum amount of WIN's recommended $57 billion financing package as grants, the amount going into revolving loans would nearly triple compared to today's program. This, in effect, will greatly increase the long-run capacity of WWIFAs to sustain their revolving loan programs compared to today's SRF programs.

Currently the leveraging of Federal capitalization grants is a matter of State policy. WIN has made no recommendations as to the merits of leveraging in the future. Assuming, however, that the current rates of leveraging continue without change, WIN's recommended funding levels will result in nearly $18 billion in additional leveraged investment over the period 2003–2007, even if WWIFAs make the maximum recommended amount of assistance available to local utilities in the form of grants.

Question 14. The WIN report incorporates a 20 percent reduction in operations and maintenance costs for both water and wastewater utilities over the next 10 years. What is the source of this estimate?

Response. Several WIN members—specifically, the Association of Metropolitan Sewerage Agencies, the Association of Metropolitan Water Agencies, the Water Environment Federation, and the American Water Works Association—have been studying the competitiveness of public water and wastewater utilities in the United States since the mid-1990s.[7] Based on this work, WIN members have delivered more than 25 workshops to more than 2,500 utility managers, representing more than 150 public water and wastewater utilities across the U.S. Findings from these workshops indicate that between 20 and 25 percent of current O&M costs could be cut from existing public utility budgets by applying best management practices, reforming work processes, reorganizing management structures, and using technology.

Many public water and wastewater utilities have already cut operating costs by this much or more. In a recent publication, AMSA and AMWA document four such

[7] See, for example: Association of Metropolitan Sewerage Agencies and Association of Metropolitan Water Agencies, *Thinking, Getting, and Staying Competitive: A Public Sector Handbook*, 1998.

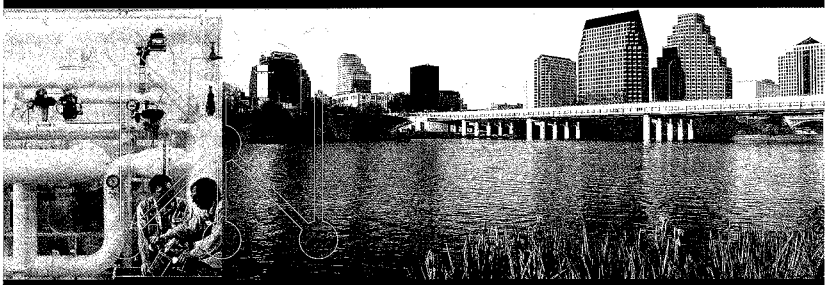
cases: Ft. Wayne, Indiana; Orange County Public Utilities, Florida; Colorado Springs, Colorado; and Houston Public Utilities, Texas.[8]

In recent presentations to the Environmental Financial Advisory Board to the U.S. EPA, several consultants actively working in the field corroborated this estimate.[9]

[8] See *Thinking, Getting, and Staying Competitive: A Public Sector Handbook.*

[9] See presentations of Garret Westerhoff, Malcolm Pirnie, Inc., Alan Manning, EMA Services, Inc. and Kenneth Rubin, PA Consulting Inc., to EFAB, March 5, 2001, the National Press Club, Washington, D.C. (available through EFAB staff, George Ames, U.S. EPA).

INFRASTRUCTURE NOW

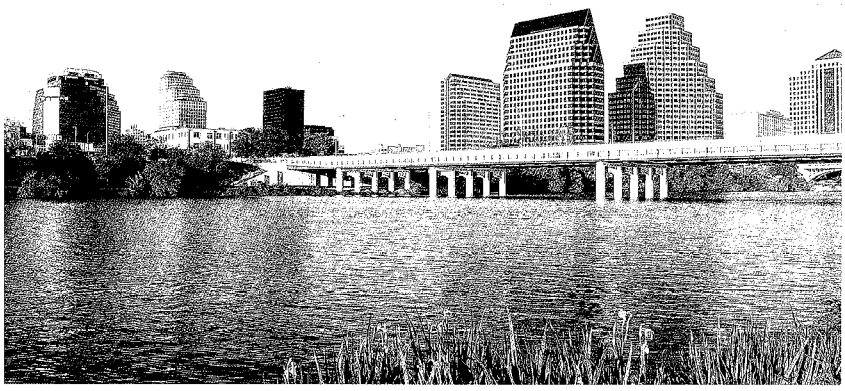


RECOMMENDATIONS FOR CLEAN AND SAFE WATER IN THE 21ST CENTURY

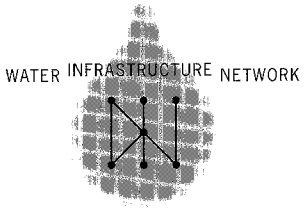
WATER INFRASTRUCTURE NETWORK

Water INFRASTRUCTURE NOW

RECOMMENDATIONS FOR CLEAN AND SAFE WATER IN THE 21ST CENTURY



WATER INFRASTRUCTURE NETWORK



The Water Infrastructure Network (WIN) is a broad-based coalition of local elected officials, drinking water and wastewater service providers, state environmental and health administrators, engineers and environmentalists dedicated to preserving and protecting the health, environmental and economic gains that America's drinking water and wastewater infrastructure provides.

Introduction

In April 2000, the Water Infrastructure Network (WIN) released its first report, *Clean & Safe Water for the 21st Century*. That report documented significant improvements in water quality and public health associated with America's investments in water and wastewater infrastructure. But, it also documented an unprecedented financial problem: over the next 20 years, America's water and wastewater systems will have to invest $23 billion a year more than current investments to meet the national environmental and public health priorities in the Clean Water Act and Safe Drinking Water Act and to replace aging and failing infrastructure. EPA's own data and analyses corroborate the WIN figures. In the words of the WIN coalition, which represents a broad spectrum of professional, technical, academic, environmental, labor, and government organizations involved in water infrastructure:

> "New solutions are needed to what amounts to nearly a trillion dollars in critical water and wastewater investments over the next two decades. Not meeting the investment needs of the next 20 years risks reversing the public health, environmental, and economic gains of the last three decades."

This second WIN report recommends a series of public and private actions that will be needed to meet the challenges for funding water and wastewater infrastructure over the coming decades. As part of this fiscal partnership, WIN recommends increasing the federal role where needs are great, public health or the environment is at risk, or local resources are inadequate. This enhanced federal role should provide for distribution of funds in fiscally responsible and flexible ways, including grants, loans, loan subsidies, and credit assistance.

Investment in Water and Wastewater Will Yield Substantial Returns

On this issue there is little disagreement – investments in water and wastewater systems pay substantial dividends to public health, the environment, and the economy. It is well documented that wastewater treatment plants prevent billions of tons of pollutants each year from reaching America's rivers, lakes, and coastlines. In so doing, they help prevent water-borne disease; make our waters safe for fishing and swimming; and preserve our natural treasures such as the Chesapeake Bay, the Great Lakes, and the Colorado River. Clean water supports a $50 billion a year water-based recreation industry, at least $300 billion a year in coastal tourism, a $45 billion annual commercial fishing and shell fishing industry, and hundreds of billions of dollars a year in basic manufacturing that relies on clean water. Clean rivers, lakes, and coastlines attract investment in local communities and increase land values on or near the water, which in turn, create jobs, add incremental tax base, and increase income and property tax revenue to local, state, and the federal government.

Some 54,000 community drinking water systems provide drinking water to more than 250 million Americans. By keeping water supplies free of contaminants that cause disease, our water systems reduce sickness and related health care costs and absenteeism in the workforce. By providing adequate supplies to industry that relies on pure water for processing, cooling, or product manufacturing, America's water systems create direct economic value across nearly every sector of the economy and every region of the country. By reducing illness and absenteeism, America's water systems contribute directly to the productivity of our workforce and continuous growth in Gross Domestic Product. Moreover, adequate water supply capacity to serve a growing industrial base enables expansion of the private economy.

Local, State, and Private Sources Form Part of the Funding Solution

Through water and sewer bills, local citizens and private businesses already pay about $60 billion a year or 90 percent of the total cost to build, operate, and maintain their water and wastewater systems. Increased local fees and taxes undoubtedly will help pay for a fair share of future system requirements, but local fees alone cannot solve all funding problems.

Efficiency gains also could pay some of the bill. Future increases in local water and sewer rates could well be reduced as competitive pressures drive utility managers to adopt more efficient organizational structures, work practices, and new technologies. Many publicly owned and operated utilities have demonstrated that operating costs can be reduced by 20–25 percent or more within a 3–5 year period.[1] But, WIN's estimate of the funding shortfall already deducts this "funding source" from its $23 billion total, so we can not count on operating efficiencies to meet more of our future needs.

Private firms in the water and wastewater business also can play a key role. Their pressure to keep markets competitive will result in reduced costs of services overall. In addition, these companies can help finance new investments. But in the end, whether financing comes from local governments or private firms, local citizens and businesses will still have to pay the bills.

The Federal Share in the 21st Century Will Be Critical

Local solutions, like increased water and wastewater rates or operating efficiencies, can address only a portion of this problem. Financing the full $23 billion a year need with utility rate increases would result in a doubling of rates, on average, across the nation. If this were to happen, at least a third of the population of the U.S. would face economic hardship using EPA's conventional criterion for affordability. In small, rural, low-income, or older shrinking urban communities, economic hardships would be significantly more acute than the average. Protecting the nation's waterways from pollution and our drinking water from contamination will grow increasingly unaffordable if local communities are asked to pay the entire bill.

In some locations, much of the shortfall in infrastructure finance is due to simple demographics. Over the next several decades, many cities will need to replace water and wastewater facilities and pipes that were installed in response to population growth and demographic shifts in the late 1800s and early 1900s. The next wave of infrastructure investment responded to post-war demographic changes in the 1920s and 1950s. Since the economic lives of materials shortened with each new investment cycle, many local utilities will face unprecedented funding hurdles as multiple generations of infrastructure wear out, more or less at the same time, over the next two decades.

1 See Association of Metropolitan Sewerage Agencies and Association of Metropolitan Water Agencies, *Thinking, Getting, and Staying Competitive: A Public Sector Handbook*, 1998.

The Case for Federal Investment

The case for federal investment is compelling. Needs are large and unprecedented; in many locations, local sources cannot be expected to meet this challenge alone; and because waters are shared across local and state boundaries, the benefits of federal help will accrue to the entire nation. Clean and safe water is no less a national priority than are national defense, an adequate system of interstate highways, or a safe and efficient aviation system. These latter infrastructure programs enjoy sustainable, long-term federal grant programs; under current policy, water and wastewater infrastructure do not.

Equally compelling is the case for flexibility in the forms of federal investment including grants, loans, and other forms of assistance. Grants will be needed for many communities that simply cannot afford to meet public health, environmental, and/or service-level requirements. Loans and credit enhancements may be sufficient for other types of communities with greater economies of scale, wealthier populations, and/or fewer assets per capita to replace.

WIN Recommendations

The Water Infrastructure Network recommends that Congress pass and the President sign and budget for new legislation to finance clean and safe water for America that:

- Creates a long-term, sustainable, and reliable source of federal funding for clean and safe water;
- Authorizes capitalization of the next generation of state financing authorities to distribute funds in fiscally responsible and flexible ways, including grants, loans, loan subsidies, and credit assistance;
- Focuses on critical "core" water and wastewater infrastructure needs and non-point source pollution;
- Streamlines federal administration of the funding program and encourages continuous improvement in program administration at both the federal and state levels;
- Adequately finances strong state programs to implement the Clean Water Act and the Safe Drinking Water Act;
- Establishes a new program for clean and safe water technology and management innovation to reduce infrastructure costs, prolong the life of America's water and wastewater assets, and improve the productivity of utility enterprises; and
- Provides expanded, targeted technical assistance to communities most in need.

WIN recognizes that no single solution addresses the full range of water and wastewater infrastructure and related challenges. All levels of government and the private sector must share responsibility for effective, efficient, and fair solutions. Each of these provisions is discussed subsequently.

Long-Term, Sustainable, and Reliable Funding for Clean and Safe Water

The importance of water and wastewater infrastructure was highlighted in the 1960s as the nation watched the quality of its waters decline precipitously and chose in the 1972 Clean Water Act to spend significant federal tax dollars to reverse this trend. Despite growing threats to public health, despite increasing federal mandates for cleaner water and safer drinking water, despite shifts in population that strand water and wastewater assets in urban core cities with few ways to pay for needed improvements, and despite the nearly universal need to replace hundreds of billions of dollars in aging and failing water distribution and wastewater collection systems, the federal contribution to water and wastewater continues to decline.

Interestingly, this is not the case in other basic infrastructure systems such as highways, airports, transit systems, harbors, or waterways, for which Congress has continued to provide substantial federal funding. The rationale is simple: these basic infrastructure systems underpin the U.S. economy broadly and their benefits accrue widely to users without geographic limitations imposed by local political boundaries. Moreover, these infrastructure systems have network benefits that are felt only after all, or substantial portions, of the network is complete and functional, affording Americans anywhere in the country access to minimum levels of services. Water and wastewater infrastructure provide comparable economic and societal benefits.

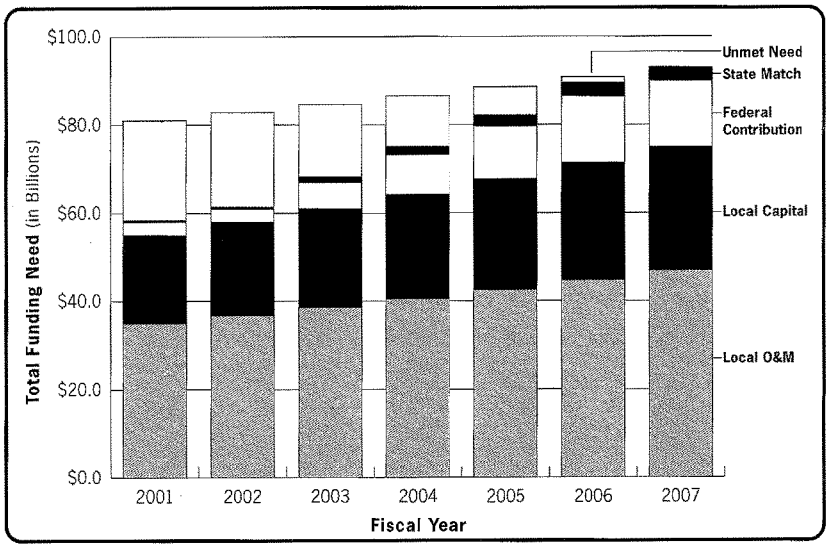
Accordingly, WIN recommends that Congress renew its commitment to America's water resources with $57 billion in new authorizations and funding to capitalize state-administered grant and loan programs through Water and Wastewater Infrastructure Financing Authorities (WWIFAs).[2] As depicted below, WIN recommends that appropriations ramp up over a five-year period to address, in a manageable fashion, the $23 billion annual shortfall in funding these critical infrastructure systems.

New Federal Funding to Capitalize State Water and Wastewater Infrastructure Financing Authorities for Core Infrastructure and Non-Point Source Investments (by Fiscal Year)[a]

	2003	2004	2005	2006	2007
Appropriations	$6 billion	$9 billion	$12 billion	$15 billion	$15 billion

[a] Current federal water and wastewater funding is about $3 billion a year, compared to WIN's estimate of $23 billion a year in needs.

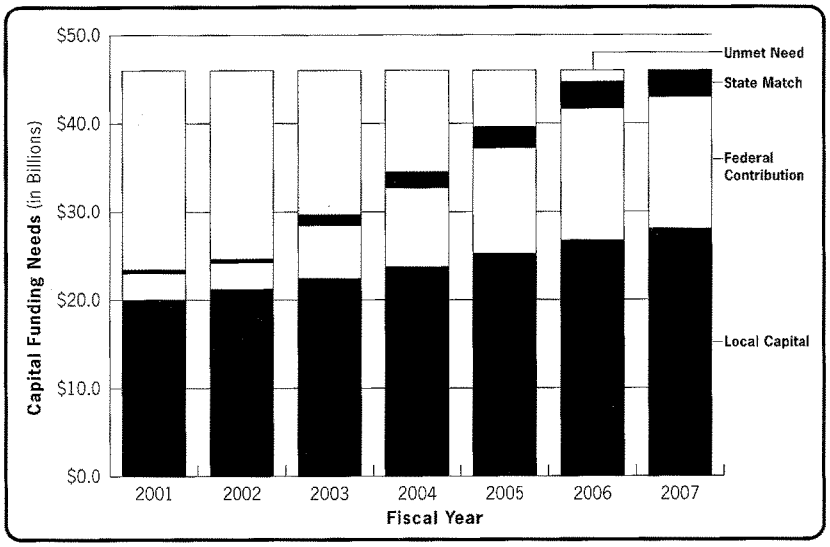
Over this five-year period, this level of funding is approximately half the capital funding shortfall.[3] In the chart below, WIN has identified how this new federal contribution could augment other sources to eliminate unmet needs by 2007.



2 Logically, these institutions are the next generation of today's water and wastewater State Revolving Funds. But under the WIN recommendations discussed subsequently, their charter would be expanded significantly and where not already so structured, administration of separate water and wastewater SRFs would be consolidated. WIN is recommending a change of name, therefore, to recognize these changes in scope, authority, and organization.

3 Note: Federal funding in 2006 and 2007 exceeds half the annualized shortfall to compensate for funds in the prior years falling short of half the annual needs.

Looking simply at the capital portion of this funding plan, the chart below depicts the relative shares of an estimated $46 billion a year in capital funding needs for which each partner will be responsible over the first five years:



The state match in these graphs is simply 20 percent of federal capitalization grants. While it is difficult to predict exactly, actual state contributions could be significantly higher than amounts shown here since many states contribute more than 20 percent through over-matching and leveraging federal capitalization grants in the bond market.

Consistent with the proportions of unmet needs identified in the April 2000 WIN Report, *Clean and Safe Water for the 21st Century*, WIN recommends that half the federal capitalization grant be reserved for investments in drinking water systems and half for wastewater systems.

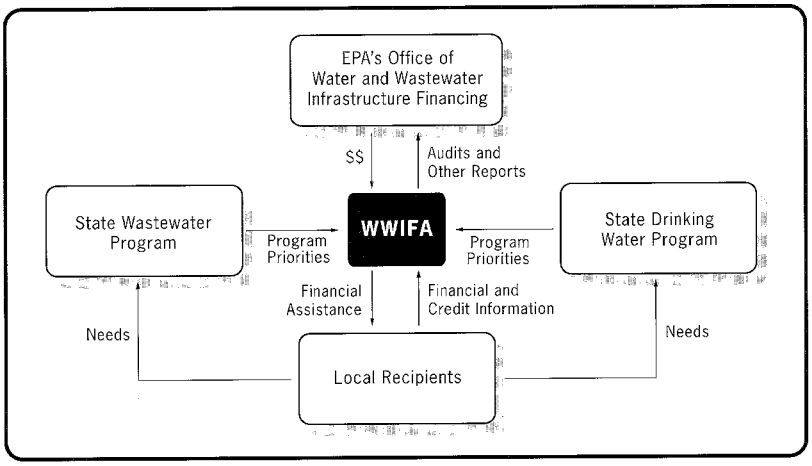
WIN recommends that states retain the flexibility to shift the use of their capitalization grant funds from water to wastewater or vice versa, with two conditions. First, neither water nor wastewater allocations in any year could drop below 35 percent of that state's annual capitalization grant as a result of such a transfer. Second, no funds could be transferred from water to wastewater (or vice versa) if such a transfer resulted in not funding a water project on the state priority list that was otherwise "ready to go," and vice versa.

WIN recommends further that Congress continue funding in years beyond 2007 to help meet the $23 billion annual shortfall identified in *Clean & Safe Water for the 21st Century*. In that regard, WIN notes that in July 2000 the U.S. Congressional Budget Office estimated that the federal budget would generate a surplus of $4.6 trillion between 2001 and 2010 and a $2.1 trillion surplus over the five-year period 2003–2007.[4]

In 2003, at the outset of WIN's recommended federal funding initiative, Congress should establish a formal process to evaluate alternatives for, and recommend the structure of, a longer-term and sustainable financing approach to meet America's water and wastewater infrastructure needs.

State Water and Wastewater Infrastructure Financing Authorities

WIN recommends that federal funding be administered through flexible statewide water and wastewater banking institutions. These water and wastewater infrastructure financing authorities, or WWIFAs, would have broad latitude to meet needs within their states using appropriate combinations of grants, loans, and other financial assistance instruments. In general, the relationship between WWIFAs and other relevant state, local, and federal institutions is depicted below.



WIN contemplates that WWIFAs would be the next generation of today's state revolving funds.[5] As such, they would have broad authorities to create affordable financial solutions to meet the investment needs of water and wastewater systems. They would handle the banking aspects of state water and wastewater infrastructure, working closely with state clean and drinking water programs

4 This includes both on- and off-budget surpluses. See: Congressional Budget Office, *The Budget and Economic Outlook: An Update*, (July 2000).

5 WIN contemplates a transition from SRFs to WWIFAs, the exact details of which must be worked out from state to state. Win does not contemplate creation of two parallel state funding institutions. WIN notes that some 30 states already operate WWIFA-like water and wastewater banking institutions, so transition issues, at least for these states, are likely to be minimal.

that would translate program priorities to meet the mandates of the Clean Water Act and Safe Drinking Water Act into sequenced WWIFA funding needs. Sequencing would help ensure that the most critical public health needs were addressed first. WWIFAs would have broad latitude to meet all funding needs with packages of grants, loans, and other forms of assistance (see below) that met sequencing requirements and resulted in local water and sewer fees that were affordable according to state financial hardship guidelines.

Just as EPA's water and wastewater program offices would interact on programmatic issues with their state counterparts, WWIFAs would interact on banking issues with EPA's new Office of Water and Wastewater Financing. This would effectively create separate, parallel funding and technical program delivery capabilities at both the federal and state levels.

WWIFAs should encourage water and wastewater utilities to use value-based procurement policies within an asset-management framework.

Grants

WIN recommends that Congress require state WWIFAs to provide 25–50 percent of each year's federal capitalization allotment as grants for up to 55 percent of the cost of eligible clean and safe water projects, except in hardship cases where grants could cover up to 75 percent of eligible project costs. In awarding grants, WWIFAs should take into account such factors as public health risk, environmental impairment, affordability, and service quality. Grants would be subject to reasonable terms and conditions.

These considerations would address the financial problems that many water and wastewater systems would face if they had to finance all of their needs through local rates. Acute public health risks, for example, should not endanger our communities nor should environmental threats degrade our unique water resources where cause and effect is unclear, leaving public and private concerns to debate who should pay to restore a watershed. Affordability should not stand as a barrier to clean, safe, and reliable water in any community in America.

Loans and Loan Subsidies

Many communities can afford to pay for loans and, in many cases, there is little debate over cost-effective solutions. Accordingly, WWIFAs should have flexibility in the types of loans and loan subsidies they offer, including interest rate discounts, zero interest rate loans, principal forgiveness, and negative interest rate loans. WIN recommends that Congress require WWIFAs to allocate 10–25 percent of each year's capitalization grant to loan subsidies. In addition, WIN strongly recommends loan terms of up to 30 years, provided such terms do not exceed the useful lives of investments.

Loan subsidies of any form should be designed to minimize administrative burdens and collateral requirements. Issues of potential concern include local accounting, reporting, and auditing requirements; requirements for public approvals; and cross-cutting federal requirements. Loan subsidies should be structured to be efficient and effective with no more requirements than those presently applicable to loan subsidies handled under the clean water and safe drinking water SRF programs.

Other Types of Financial Assistance to Meet Needs

WIN recognizes that other financial assistance mechanisms, including public-private partnerships, may address a portion of the problem. Congress, therefore, should authorize WWIFAs to use federal capitalization grants to:

- purchase or refinance outstanding debt obligations of water or wastewater service providers;
- guarantee, or purchase of insurance for, an obligation of a water or wastewater system;
- secure the payment or directly repay principal or interest on general obligation bonds issued by the state if proceeds of the bonds will be deposited into the SRF; and
- deposit into a capital reserve for a debt instrument of a water or wastewater system.

As part of the federal funding package designed to lower the cost of capital for WWIFAs that choose to leverage their federal capitalization grants and for individual issuers seeking to borrow in the public capital markets, Congress should exempt from state private activity bond volume caps state and local private activity bonds for water and wastewater infrastructure, where such bonds (1) are used to finance core water or wastewater infrastructure, as defined below, and (2) produce public health or environmental protection benefits that are generally available to the public.

This will greatly reduce the cost of financing water and wastewater infrastructure. As important, it will allow communities increased flexibility to more efficiently structure public-private partnerships that bring together the particular strengths of both the public sector and the private sector.[6]

Funding Core Infrastructure Needs

WWIFAs are broadly enabled banks for water and wastewater infrastructure and equivalent investments that yield clean and safe water. Accordingly, WIN believes that WWIFAs should focus on funding the following types of core investments, as identified in WIN's May 2000 report, *Clean & Safe Water for the 21st Century*:

- **Drinking water supply systems** – including water treatment facilities, finished water storage, finished water distribution systems, source water development, water supply management and inter-connection, source water protection, demand management, and rehabilitation of raw water conveyance and water storage infrastructure;
- **Domestic wastewater management systems** – including wastewater collection and pumping infrastructure, wastewater treatment plants, wastewater reclamation and reuse facilities, biosolids (sludge) management, and discharge infrastructure; and
- **Wet weather runoff control systems and management practices** – including pollution prevention and/or reduction practices as well as runoff collection, conveyance, and treatment facilities.

6 For a more complete discussion of these issues, see: Environmental Financial Advisory Board to the U.S. Environmental Protection Agency, *Incentives for Environmental Investment: Changing Behavior and Building Capital*, August 9, 1991.

Since needs will vary from one system or one watershed to the next, WIN recommends that states set the following broad priorities for project-level investments under their WWIFA programs to:

- Repair, rehabilitate, or replace treatment, collection, or distribution systems;
- Attain compliance with applicable federal or state regulatory requirements;
- Meet applicable local service levels;
- Address public health or environmental emergencies; and
- Address non-point source problems where such investments by local water or wastewater systems are cost effective relative to other core infrastructure solutions.

WIN recommends that water and wastewater systems making investments in core infrastructure remain eligible for WWIFA assistance regardless of whether they are publicly or privately owned and/or operated as long as they provide water or wastewater services that are generally available to the public.

Neither operations nor maintenance needs would be eligible for federal WWIFA funds. Using their own appropriated funds, states would be required to match 20 percent of federal capitalization grants. To avoid imposition of additional state fees, Congress should enable states to set aside sufficient portions of annual capitalization grants to administer these expanded programs.

While decisions on individual projects would not be subject to federal approval, they would be subject to public review and comment.

Streamlined Federal and State Administration

Currently, two different offices within the U.S. Environmental Protection Agency interact with state finance authorities – one handling water finance and the other handling wastewater finance. In addition, in about 20 states, separate water and wastewater agencies administer these financing programs.

WIN recommends, therefore, that EPA form a new Office of Water and Wastewater Infrastructure Financing to oversee implementation of this new funding legislation. This office would consolidate the administration of grants to state WWIFAs. The director of this office should report to the Assistant Administrator for Water. This arrangement would streamline program delivery and partially separate funding and financial performance activities from regulatory program development and enforcement activities.

Congress should authorize this new office to work with states, local borrowers, and other market participants through advisory panels to undertake a thorough analysis of, and recommend ways to streamline, inefficiencies in the administration of these funding programs. Recommendations should address the need to reduce federal and/or state paperwork requirements associated with federal funding assistance, simplify application processes, reduce oversight and reporting requirements where they no longer serve the federal or state interests, and provide flexibility in meeting requirements that do serve federal and state interests.

The State Role in Managing Clean and Safe Water Programs

Under both the Clean Water Act and Safe Drinking Water Act, EPA delegates primary responsibility to the states to administer and enforce the national programs for clean and safe water. Each year, Congress appropriates grants to states to help pay their costs of administering these programs.

Section 106 of the Clean Water Act authorizes EPA to provide Federal assistance to states (including territories, the District of Columbia, Indian Tribes) and interstate agencies to establish and implement ongoing water pollution control programs. Prevention and control measures supported by state water quality management programs include permitting, pollution control activities, surveillance, monitoring, and enforcement; advice and assistance to local agencies; and the provision of training and public information.

The Safe Drinking Water Act gives states and Indian Tribes primary enforcement responsibility for public water systems in their jurisdictions if they meet certain requirements. Congress also provides grants under Section 1443 to state drinking water agencies to manage these delegated programs. Activities undertaken by the states continue to expand and include conducting sanitary surveys; monitoring and enforcing drinking water standards; training and certifying operators; reviewing plans and specifications for water systems; implementing source water assessments and capacity development programs; and providing emergency response, risk communication, disease surveillance, and technical assistance to local communities.

Recent analyses have documented that federal grants to states have not kept pace with dramatic increases in costs of managing these federally delegated clean water and safe drinking water programs. While federal grants to support state drinking water programs may be used to provide up to 75 percent of a state program's costs, according to the Association of State Drinking Water Administrators, appropriations historically have covered only 35 percent. Accordingly, WIN recommends that Congress appropriate $400 million a year between 2003 and 2007 (in addition to the appropriations for WWIFA capitalization grants discussed earlier), or $200 million a year to help fund state implementation of the Clean Water Act and $200 million a year for state implementation of the Safe Drinking Water Act.

Federal Funding for State Implementation of the Clean Water Act and Safe Drinking Water Act (by Fiscal Year)

	2003	2004	2005	2006	2007
Appropriations	$400 million	$400 million	$400 million	$400 million	$400 million

A New Program for Clean and Safe Water Technology and Management Innovation

Technology and management innovation offer attractive solutions to high and rising costs of water and wastewater infrastructure. The rationale for technology research and development is simple: replacing existing and adding required new water and wastewater assets would cost more than $1 trillion, so improving the performance or longevity of only 1 percent of these assets would result in direct savings of $10 billion. Management innovation can continue to increase productivity at the nation's water and wastewater utilities, which in turn reduces operations and maintenance costs.

Recent innovations in the structure of organizations, the efficiency of reengineered work practices, and applications of technology have demonstrated O&M savings on the order of 15 percent to 40 percent.

The federal government currently supports technology research and development through a variety of programs at the federal level including:

- EPA programs administered by its Office of Research and Development and funded through grants to regional research organizations;
- Congressional appropriations to non-profit research foundations including the Water Environment Research Foundation (WERF) and the American Water Works Research Foundation (AWWRF); and
- The Environmental Technology Verification Program.

Yet, none of these programs focuses specifically on infrastructure. The AWWRF program is impressive at some $15 million a year, but only $1–2 million a year is directed to infrastructure research. WERF's $10 million a year program similarly spreads resources across many subjects including infrastructure. The Association of Metropolitan Sewerage Agencies (AMSA), the Association of Metropolitan Water Agencies (AMWA), the Water Environment Federation (WEF), and the American Water Works Association (AWWA) independently and working together have advanced the concepts of competitiveness to improve water utility productivity and reduce operating costs. Currently, these groups are focused on new ways to manage water and wastewater utility assets. Much more work in these areas is needed.

Accordingly, WIN recommends that Congress authorize $250 million a year (in addition to authorization for WWIFA capitalization grants discussed earlier) to support an Institute of Technology and Management Excellence to promote the development and use of innovative technologies that would reduce the cost of meeting national clean and safe water requirements and replacing water and wastewater infrastructure. The Institute would offer 85 percent cooperation grants to water or wastewater systems and their private sector or university partners to develop new management techniques and technologies, demonstrate their performance and costs at the utility level, and disseminate results using an Institute-sponsored web learning center. The Institute would be charged with recommending to Congress and the states appropriate incentives to adopt new management approaches and/or technologies. The board of directors of the Institute would be comprised of public and private interests in clean and safe water.

Federal Funding to Support a New Institute of Technology and Management Excellence (by Fiscal Year)

	2003	2004	2005	2006	2007
Appropriations	$250 million	$250 million	$250 million	$250 million	$250 million

In addition, WIN recommends that Congress authorize and appropriate $150 million a year between 2003 and 2007 for research and development pilot projects on stormwater management. These funds would go directly to local governments who want to engage in research or to demonstrate innovative approaches to managing separate storm sewer discharges more effectively.

Federal Funding to Support Local Stormwater Management Pilot Projects (by Fiscal Year)

	2003	2004	2005	2006	2007
Appropriations	$150 million	$150 million	$150 million	$150 million	$150 million

Expand Technical Assistance for Communities Most in Need

Technical assistance and capacity building for communities in need is low-cost insurance that funds will be wisely invested in water and wastewater infrastructure and that these facilities will be properly maintained and managed. Since proper maintenance improves operating performance and prolongs system life, both current operating and future replacement costs will be reduced.

The federal government currently spends approximately $20 million a year on water and wastewater technical assistance to these communities through programs administered by the Environmental Protection Agency (EPA), the Department of Agriculture Rural Utilities Service (RUS), and various state programs. But, technical assistance needs are expected to grow with increases in funding for capital investment under the WIN recommendations. WIN therefore recommends that Congress authorize and fund an additional $25 million a year between 2003 and 2007 for technical assistance to communities in need. These funds would continue to be administered through existing programs.

Federal Funding to Increase Water and Wastewater Technical Assistance to Communities Most in Need (by Fiscal Year)

	2003	2004	2005	2006	2007
Appropriations	$25 million	$25 million	$25 million	$25 million	$25 million

Summary of Funding Recommendations

The Water Infrastructure Network has found compelling evidence of water and wastewater needs that substantially exceed current investment levels. If we do nothing, the nation can expect increased threats to public health, environmental degradation, and real economic losses. At times and in places, these threats will be small and barely noticeable, but over the next two decades, and even more quickly in some locations, losses will mount and solutions will be financially unmanageable.

The Water Infrastructure Network has recommended a series of actions, therefore, to strengthen the partnership among governments at the local, state, and federal levels and between public and private participants in the water and wastewater infrastructure community.

These actions will not be cost free. WIN is recommending that all levels of government and the private sector pay for needed investments in efficient, effective, and equitable ways. Despite the figures below that represent the federal share of this fiscal partnership, local government will still be paying 80 percent of the cost to build, operate, and maintain America's water and wastewater systems.

The Water Infrastructure Network, a broad based coalition of organizations representing local elected officials, drinking water and wastewater service providers, state environmental and health program administrators, engineers, labor, and environmentalists, agree: this partnership is essential to water in the 21st century.

The Federal Share of a Partnership for Clean and Safe Water for the 21st Century (in millions of current dollars)

	2003	2004	2005	2006	2007
Capitalize State Water and Wastewater Infrastructure Financing Authorities	$6,000	$9,000	$12,000	$15,000	$15,000
Support State Clean Water Act and Safe Drinking Water Act Programs	$400	$400	$400	$400	$400
Fund Technology and Management Innovation Cooperation Grants to Water and Wastewater Systems	$250	$250	$250	$250	$250
Fund Local Stormwater Management Pilot Projects	$150	$150	$150	$150	$150
Provide Technical Assistance to Communities Most in Need	$25	$25	$25	$25	$25
TOTAL	**$6,825**	**$9,825**	**$12,825**	**$15,825**	**$15,825**

TUCSON WATER DEPARTMENT,
Tucson, AZ, March 24, 2001.

MEMBERS,
Committee on Environment and Public Works,
Subcommittee on Fisheries, Wildlife and Water,
U.S. Senate

Re: Water and Wastewater Infrastructure Needs

HONORABLE SUBCOMMITTEE MEMBERS: I am writing to express the city of Tucson's support for a substantial increase in Federal funding of water and wastewater infrastructure, as recommended by the Water Infrastructure Network's (WIN) recent report *Recommendations for Clean and Safe Water in the 21st Century.*

The underlying research for the WIN report documents the national costs to replace aging and failing infrastructure and to meet mandates of the Clean Water Act and the Safe Drinking Water Act. The aging pipelines and systems throughout the United States present a burden that cannot reasonably be accommodated by local water and wastewater systems. Typically, utilities would pass infrastructure costs on to water and wastewater customers via increased rates. While this pay as you go funding has allowed utilities to get by, the level of reinvestment required now to replace aging infrastructure is so great that customers, alone, simply can't afford to pick up the entire tab.

The Federal Government is uniquely qualified to address this issue. As indicated in the WIN report, increased Federal participation is justified and produces numerous benefits:

- Size of challenge warrants national attention.
- Local revenue-raising capacity is enhanced with Federal funding.
- Federal involvement increases public awareness of needs.
- Federal support is less influenced by regional economic swings.
- Innovative project financing mechanisms are available.
- Would result in a fair and equitable allocation of costs and revenues.

Effective water and wastewater systems are crucial to the health and economic viability of every city and town, every state, and the Nation as a whole. The replacement of water and wastewater infrastructure should be as important to this country as the interstate highway, mass transportation, and airport systems that receive substantial Federal funding today.

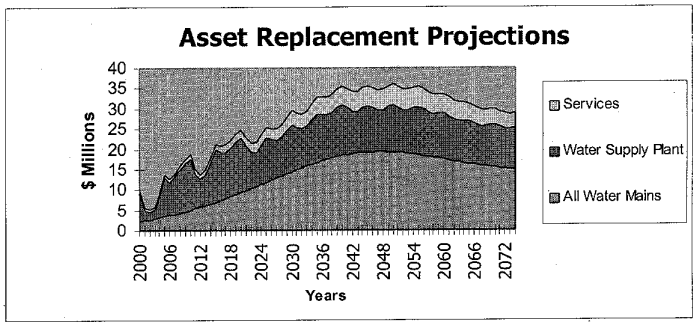
Tucson, AZ, while a relatively young sunbelt city that experienced most of its growth after World War II, will soon face the same infrastructure replacement issues as now faced by older communities. The figure below illustrates that Tucson's cost to replace existing water pipelines and facilities will soon double and triple over current expenditures, and will stay at that higher level into the foreseeable future.

I urge you to expand the Federal role as proposed by the WIN report. If you have any questions about the infrastructure needs of cities such as Tucson, Arizona, please do not hesitate to contact me.

Sincerely,

DAVID MODEER,
Director, Tucson Water.

Figure 1. Projected Water System Infrastructure Replacement Costs Tucson Arizona



Source: unpublished American Water Works Association research, 2000