S. HRG. 107–320

WASTEWATER INFRASTRUCTURE NEEDS IN OHIO

FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON
FISHERIES, WILDLIFE, AND WATER

AND THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

ON

IDENTIFYING WATER SYSTEM PRIORITIES AND POLICIES THAT PROMOTE ENVIRONMENTAL PROTECTION AND ECONOMIC DEVELOPMENT

APRIL 30, 2001—COLUMBUS, OH

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WASTEWATER INFRASTRUCTURE NEEDS IN OHIO

MONDAY, APRIL 30, 2001

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND WATER,
Columbus, OH.

The subcommittee met, pursuant to notice, at 9:39 a.m. Columbus City Hall, Columbus, OH, Hon. Michael D. Crapo (chairman of the subcommittee) presiding.

Present: Senators Crapo and Voinovich.

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, and it's our hearing on options to address wastewater needs in Ohio.

Before I turn the microphone over to Senator Voinovich, I would like to first make a few brief comments. I'd like to first express my appreciation to our witnesses and all of our guests today for joining us here as we examine water quality and infrastructure needs in Ohio. This is an important opportunity to hear firsthand from community and elected leaders from the State about their concerns about what is one of the most significant issues facing us in America today.

Congress has been looking into ways to address the growing problems facing communities with wastewater problems for a number of years. In fact, the Senate Environment and Public Works Committee has held numerous related hearings in the past two Congresses, the most recent in March.

I think it's appropriate that we are here today in Ohio for our first field hearing on the issue, because Ohio is a good microcosm of infrastructure issues in this country, with its mixture of urban and rural communities, industrial sectors and agricultural regions, and older and newer treatment systems.

It's my hope that the testimony we receive today will help the subcommittee achieve a better understanding of the complexities and the needs of our Nation's communities.

I'd also like to share some of my thoughts about my host today, Senator Voinovich. Just as Ohio is a good location for this field hearing, Senator Voinovich is the right person to help Congress lead this debate. With his successful experiences both as mayor and Governor prior to serving in the U.S. Senate, George Voinovich

is uniquely qualified to work within Congress to help our communities.

True to this fact, Senator Voinovich has long advocated for additional Federal attention and efforts to enhance available resources and improve State flexibility in administering wastewater programs. I commend him for his partnership in this cause.

I may state on a personal note that since he's one of my best friends in the Senate, I appreciate the invitation to be here.

With that, I'd like to, once again, thank our witnesses for joining us here today and look forward to an enlightening exchange of ideas and a healthy discussion on Ohio's wastewater needs.

Before we begin the testimony, I'd like to turn to Senator Voinovich for anything he'd like to say as an opening statement.

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

Senator VOINOVICH. Thanks very much. First and foremost, I want to thank you very much for coming here to chair this hearing. Quite frankly, the only way that we can get something in the congressional record is to have the chairman of the subcommittee come to the State. We met in December, I think, Senator, and none of that testimony was in the congressional record. We want to build a good record because it's very important for the future, in terms of getting legislation passed.

Senator Crapo, who represents the great State of Idaho, and prior to his being Senator, he spent three terms in the House of Representatives. I want to say, this is a big gesture for him to come to Ohio. I could get on a plane, it takes me 55 minutes to go from Washington to Cleveland. Senator Crapo has to go from Idaho Falls to Utah to Salt Lake to Cincinnati. He came in here last night. I drove down this morning. I want to thank you, Mike, for going out of your way. I owe him one now, and I'm going to go to Idaho.

Senator CRAPO. We'll get you out to Sun Valley.

Senator VOINOVICH. Again, I'm pleased that you're here. You're right, Ohio is a microcosm, I think, of the United States of America.

It's interesting that people always ask me, "Are you adjusted yet to Washington?" I tell them, "No, and when I am, it's time for me to leave." Too often we get inside that beltway circuit and lose touch about what's happening on main street.

Today we're here to hear some perspective from some folks that are on the street dealing with the problems in a matter that's very important to the health and well-being of all Ohioans. We forget sometimes, these other issues come along, but good water, good sewage treatment is very important to public health and to the environment. I appreciate the witnesses taking time out of their busy schedules to be here with us today.

The condition of our Nation's wastewater collection and treatment infrastructure systems has been a long-standing concern of mine. Senator, the first bond issue I worked on when I came to the Ohio legislature was for a $375-million bond to deal with waste treatment problems in the State of Ohio. That was a forerunner of the Federal program.

So often people forget that most of the waste treatment facilities that were built in this country to bring us out of the dark ages from primary to secondary to tertiary treatment facilities were supported 75 percent by the Federal Government.

The program went into being in 1972, and between 1972 and 1990, there were some 10,000 facilities throughout the State that received Federal money to the tune of $50 million.

I think that a lot of people are unaware of the fact that we've got 1,000 public wastewater facilities and 1,500 commercial facilities in operation in Ohio. Think of that. Five percent of Ohio's 11.4 million residents are served by individual septic tanks. So this is a major issue.

The thing that's interesting is that the public looks at rate increases as taxes. I don't know about how it is in your State, Senator; I know about your energy costs, but our heating bills have gone up 100, 150 percent for our businesses and some businesses, 200 and 300 percent.

Our electric bills are going to go up this summer because a lot of our power now is generated by natural gas. We know gasoline prices are going up. Health care costs are going up. I know for sure that utility rates are going up. So we need to deal with this problem on a realistic basis.

One of the things I'd asked the General Accounting Office to do is to look at the infrastructural needs of this country. I'm talking about highways, mass transit, airports, drinking water, public buildings, water resources and hydropower generators, because we're not dealing with these things.

The Senator knows that the President increased the budget 4 percent. When we got done, it was 8 percent. Who knows where it's going. But very little money was allocated to some of these unmet needs in the country. It's like we don't exist so we must find some other areas to deal with them.

So, what we'd like to do today is to hear from you. We want to hear about what you're required to do now. We know you have current aging infrastructure problems. I know that because I was a Governor and a county commissioner. So that's a problem that exists. We've all got to deal with that. Then on top of that, you are being required to do some things that you're not doing now. My concern is, do the things that you're being asked to do make sense?

We pass laws. The EPA passes regulations; they issue guidances. Is what they're asking you to do make sense? Is there another way that they could do it that would be more reasonable?

Senator, I think you were probably in Congress during the reenactment of the Safe Drinking Water Act. I was kind of the leader of the Governors on the measure. In fact, I was at the White House when the President signed the bill. One of the things we said is cities should not have to, every 3 years, treat five new pollutants that don't exist. They ought to put their money into those things that really make a difference.

Then we did something with the Clean Air bill. We put a provision in that says when you pass the regulation, they look at risk assessment, look at cost benefit, peer review, and do those things before you make a regulation.

Are we making sense? If we are making sense—and Chris Jones, here, I'm interested in hearing his thoughts—if it's good stuff, then who should pay for it? Is it an unfunded mandate? Is it the Federal Government's responsibility to be involved in it? Should we be providing money for more loan money? Should we be providing you with grant money so that it's a partnership, so that the entire burden of this should not fall upon the backs of your citizens?

So I'm interested in that. I'm interested, also, in what does this mean in terms of the person in your town, mom and pop at home in a house with a family—they have other things to pay for, what's it going to do in terms of their budget?

Then last but not least—the most important thing, in my opinion, is what's it going to do with pollution and the environment? So that's really what I'm hoping that we get from our testimony.

Again, Senator, I'm so glad that you're here today and chair of this committee, and we're anxious to hear from our witnesses.

[The prepared statement of Senator Voinovich follows:]

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

Good morning.

First and foremost, I would like to give my deep thanks to my friend and colleague, Senator Mike Crapo, for holding this hearing on Ohio's wastewater infrastructure needs right at the source of the problem here in Ohio.

Senator Crapo, who represents the Great State of Idaho, and I came to the Senate at the same time, and I consider him one of my best friends in the Senate. Before being elected as a U.S. Senator from Idaho, Senator Crapo served the people of Idaho's 2d congressional district for 3 terms in the U.S. House of Representatives.

Mr. Chairman, it takes a lot longer to get back to Washington, DC from Idaho than from Ohio, and I am very grateful that you could make a stop in Columbus to chair this field hearing.

I am particularly pleased that we are here in Columbus today, with a good representation of the individuals whose communities are directly impacted by infrastructure needs. I've said on a number of occasions that too often in Washington we get so caught up in everything that's going on that we can lose sight of what's really important to the American people.

So many times people ask me if I have adjusted to D.C. I answer, "no," and say that if my answer is ever "yes," it is time for me to leave.

Today, we are going to get some perspective from those who are really feeling the financial pinch on an issue that is not often talked about, but is, nonetheless, of great importance to the health and well-being of all Ohioans water infrastructure, and in particular, sewer infrastructure.

I appreciate our witnesses taking the time out of their busy schedules to be with us this morning. I had the opportunity to meet with many of you last December in discussing these same issues, and I am pleased that we have another opportunity to talk about Ohio's wastewater infrastructure needs in this hearing.

The condition of our nation's wastewater collection and treatment infrastructure systems has been a long-standing concern of mine, as I know it is for you, Mr. Chairman, and for each of our witnesses as well. From my own experience, as mayor of Cleveland, I saw rates increase dramatically to deal with the City's dual water infrastructure problems: drinking water and wastewater treatment.

Mr. Chairman, many years ago, our former Governor, the late Jim Rhodes advised me, "George, never put anything in the ground because the public can't see it." Well, as you know, Washington, in many cases, has the same attitude when approaching unmet needs: don't address anything that isn't high profile.

But, as our local officials here on this panel know, it is quite often the stuff that's underground and out of sight that gets you the most attention and it's almost always never positive. All it takes is one burst pipe, and you'll get hundreds of phone calls from angry citizens demanding that you fix it immediately.

In my hometown of Cleveland, there have been two big water main breaks in the last year that caused a lot of flooding and disrupted people's lives. Let me tell you, those breaks got a lot of attention.

Unfortunately, for many communities across our Nation, anything but routine maintenance for such problems is prohibitively expensive. For those communities that want to conduct a wholesale overhaul of their aging infrastructure, many face the realization that they will have to obtain revenues locally.

Of course, the general public considers rate increases as they do taxes. And with the reaction to the dramatic rise in heating costs this winter, possible increases in electricity costs, high gas prices, and other necessities like health care, it's easy to understand why the public does not want to pay more for something they take as a "given." It's a wonder how the average person can make it.

(That's one of the reasons I am working to address the lack of a national energy policy.)

However, with an attitude among the public of not wanting to pay for these infrastructure upgrades, more often than not, these upgrades go on the back-burner, adding to the nationwide cost of repairs.

I have asked the General Accounting Office (GAO) to conduct a study on the unmet infrastructure needs of our Nation. This includes such items as: highways, mass transit, airports, drinking water supply and wastewater treatment, public buildings, water resources (flood control and navigation) and hydropower generating facilities.

For each infrastructure area, the GAO will look at how agencies develop their needs estimates and determine whether they used leading practices and guidelines. I believe the GAO's final report will give us a better sense of exactly how reliable the needs estimates are.

The U.S. Environmental Protection Agency's "Clean Water Needs Survey" is a striking example of how much has to be done to tackle our unmet needs. Conducted in 1996, this survey estimated that nearly $140 billion would be needed over the next 20 years to address wastewater infrastructure problems in our communities.

In March 1999, the EPA revised their figures upwards, whereas infrastructure needs are now estimated at $200 billion. Other independent studies indicate that EPA has undershot the mark, estimating that these incredible unmet needs exceed $300 billion over 20 years.

Since arriving in the Senate 2 years ago, I have used my position as a member of the Committee on Environment and Public Works to work toward improving the condition of our nation's water infrastructure.

In February, I introduced legislation reauthorizing the highly successful, but undercapitalized, Clean Water State Revolving Loan Fund (SRF) Program. My bill "the Clean Water Infrastructure Financing Act" (S. 252) which is identical to legislation I introduced in the last Congress would authorize $3 billion per year over 5 years for a total of $15 billion.

As you may know, the SRF program has continued to receive annual funding since 1994 when its authorization expired. This year fiscal year 2001 is no exception, with Congress appropriating $1.35 billion for the program. Of that, approximately $74.9 million will go to Ohio to capitalize its SRF program.

However, as in many States, my State of Ohio has needs for public wastewater system improvements which greatly exceed typical Clean Water SRF funding levels. In Ohio alone, $7.4 billion of improvements have been identified as necessary, according to the latest State figures. Of that amount, nearly $4 billion is needed to fix Ohio's combined sewer overflow problem. I will let our witnesses go into details about the cost of the needs they face, but suffice it to say, most have needs that far outweigh Ohio's annual allocation.

In order to allow any kind of substantial increase in spending, reauthorization of the SRF program is necessary. One of the things that bothers me the most in Washington is that there is no consideration to taking care of our nation's needs across the board. The President's fiscal year 2002 budget request, for instance, increases funding by 4 percent, although important programs like the U.S. Army Corps of Engineers Civil Works program and the Clean Water SRF program face significant cuts. In my view it is the responsibility of the Federal Government to take care of our aging water infrastructure.

The Clean Water SRF program is an effective and popular source of funding for wastewater collection and treatment projects. While the loans provided by the Clean Water SRF program can help many communities finance wastewater infrastructure projects, even a low-interest loan can be too expensive for some.

One of the bills that I pushed especially hard last year was the Wet Weather Quality Act of 2000 (H.R. 828). This bill created a $1.5 billion grant program to help localities deal with CSO and SSO problems.

I felt that this bill was a reasonable approach to helping communities overcome the burden of wastewater infrastructure costs. I was pleased, therefore, that it was included in the Omnibus Appropriations bill that passed in the Senate late last

year, and I was further pleased to be able to work with my House colleagues from the Ohio delegation to get this enacted.

Now we will need to work to ensure that we have the first installment of $750 million to carry-out this program, as well as at least level funding $1.35 billion for the Clean Water SRF program as Congress addresses the fiscal year 2002 budget. Again, I am disappointed that the President's fiscal year 2002 budget request reduced the overall amount of money available for water infrastructure. Specifically, the budget asks for $450 million for the new wet weather grants program and $850 million for the Clean Water SRF. I am not alone in asking that more funds go toward these programs.

This past February, I also attended a press conference held by the Water Infrastructure Network (WIN). WIN is a coalition of wastewater treatment and drinking water providers, environmental engineers, contractors, and municipal organizations.

During the press conference, WIN called on the Federal Government to significantly enhance its role in financing the nation's clean water and safe drinking water infrastructure. Their proposal is a 5-year, $57 billion program combining grants and loans to increase Federal investment in our nation's water infrastructure, including our CSO and SSO problems.

After the press conference I was asked by a person from the media if I thought that was enough money or if Congress would even approve such a sum.

I told him that while $57 billion may or may not be something that Congress can approve, I am in favor of talking about the costs incurred by the local governments as a result of actions taken by Congress that is, the unfunded mandates that are passed on by Washington and seeing what we can do to alleviate the situation. Perhaps a program that involves a mixture of grants and loans would suffice. It should be given our careful consideration.

Mr. Chairman, the Federal Government will not be able to solve our infrastructure needs with more money alone. Accordingly, I believe some of our laws and regulations may need to be revisited to see if there is any way the Federal Government can alleviate the burden on communities and their ratepayers and still be consistent with good environmental policy. I believe benefits and costs need to be carefully analyzed and taken into consideration when the Federal Government makes a decision that will affect our citizens.

That is why when I was Governor of Ohio I was very involved with the amendments to the Safe Drinking Water Act to bring common sense to our nation's drinking water law. At the time the legislation was being debated, cities like Columbus were facing having to add 25 pollutants every 3 years and spend millions of dollars to invest in sophisticated monitoring technology.

I look forward to hearing from our witnesses about the extent of water infrastructure concerns in their communities. I am interested in what they have done to address their own concerns and how they have used available Federal and State programs to help finance improvements. Part of what I would like to get out of today's hearing is what our witnesses believe Congress should be pursuing in a comprehensive effort to deal with wastewater infrastructure needs.

Further, I would appreciate hearing their thoughts on how they see the Federal Government acting more as a partner with our States and communities; especially those trying to comply with Federal water quality standards.

Finally, I would like to come out of this hearing with a consensus on a number of issues besides just funding, mainly, whether changes in Federal regulations are needed in order to make them more reasonable and flexible to communities, or whether changes to Federal law are needed instead.

What are we asking our communities to do that doesn't make sense and what are the implications of those requirements on the costs they are facing? If they make sense, what is fair in terms of who should pay for what? How much should the Federal Government put forth and how much should States and localities be responsible for? Finally, how do we pay for it?

Mr. Chairman, if we tell communities they have to comply with a law that we pass, then we need to give them the means to do it not just make a decree.

We need to seriously look at some of the things that we're asking our State and local leaders to do. We need to let them use cost benefit analysis, risk assessment and sound science.

Congress needs to do a better job educating the public on the extent of water infrastructure needs in our communities and why it is important that something be done to protect public health and well-being. We need to address the regulations that these communities are faced with, and we need to ensure that they have the adequate funds to meet their needs.

Once again, I am pleased to be here this morning and I am eager to hear what you have to say. Thank you, Mr. Chairman, for taking the time to be with us this

morning. I would like to thank our witnesses as well, and I anticipate a very lively hearing.

Senator CRAPO. Well, thank you very much, George. You have effectively encapsulated exactly what it is that this committee is trying to do. For those who are here, I would tell you that the committee is looking very aggressively at a major reauthorization bill to try to address the very issues that Senator Voinovich has raised so effectively. So the input you provide for us today will be very helpful as we proceed along that course.

Let me just lay out a few of the ground rules, then we'll get started.

I believe you all have a clock in front of you, right? There's one at the witness table. We've asked each of you to try to keep your comments—your oral presentation to 5 minutes.

My experience is that I've rarely had a witness in front of our committee who can say everything they want to say in 5 minutes, so I'm almost certain your time will run out before what you have to say will run out, but please try to follow the clock.

When it starts, you know, getting down to that timeframe when you've got about a minute left, try to get ready to summarize. When it runs out, we'll ask you to summarize your testimony and finish it, with the understanding that the reason we want to try to keep it at that is we will try to get into an exchange with you and you will have the opportunity to say things you want to say, and that will give us the opportunity to have dialog without running out of time at the end of the hearing.

So I would like to ask you to try to follow the clock. If you're like me, you have a hard time remembering to look at the clock, so if you do go over very far, I will lightly tap the gavel a little bit to remind you to look at the clock.

With that—are there any other instructions?

Senator VOINOVICH. No, that's fine.

Senator CRAPO. With that, we'll proceed, then, with our first panel. Our first panel is the Hon. Lydia J. Reid, who is the mayor of the city of Mansfield, and the Hon. Robert Vincenzo, who is the mayor of the city of St. Clairsville. We welcome you both with us.

Mayor Reid.

STATEMENT OF HON. LYDIA J. REID, MAYOR, MANSFIELD, OH

Mayor REID. Thank you, Senator Crapo, and thank you for coming all the way to Columbus, OH. I think you're going to find your trip enjoyable, and I'm sure that Senator Voinovich will make it worthwhile. You can see our beautiful statehouse and a few of our other attractions.

Senator Voinovich, thank you once again. I've been with you on many of our—I guess we call them battles that we've waged over the years, and I remember the Clean Air Act, when we stood with Senator Glenn and worked on that several years ago, and I appreciate your grasp of what we are going through. Of course, with your experience as mayor of Cleveland for so many years and as Governor, you understand why we're here today trying to protect our citizens from onerous restrictions that none of us can afford. So having said all that, I will start.

I'm here to provide information relating to potential required expansion of our wastewater treatment plant in Mansfield. The service area includes 55,000 people, along with business and industry.

Sewer service is provided by a separate sanitary system and the wastewater is treated in a wastewater treatment plant with a design capacity of 12 million gallons per day before discharge to the Rocky Fork of the Mohican River.

The collection system was originally a combined sewer system, designed to carry both sanitary sewage and stormwater. In the mid-1980's, it was converted to a separate sanitary system. This change from combined system to separate sanitary system brought the city under a more stringent regulatory regime.

U.S. EPA regulations are based on the assumption that flows in a separate sanitary system will not have a significant stormwater component and, consequently, there will be no sanitary sewer overflows and no plant bypasses.

The Mansfield system has no sanitary sewer overflows. At the wastewater treatment plant, dry weather flow averages about 9 million gallons a day. It is processed through primary treatment, secondary treatment, and disinfection before discharge to the Rocky Fork.

During wet weather, intermittent flows of up to 18 million gallons a day are processed in this way. Above that level, some flows are diverted to the 5-million-gallon equalization basin for storage and later treatment.

In extremely high flow situations, the EQ basin, which provides better than primary level treatment, overflows. EQ basin overflow combines with treated secondary effluent and the entire flow is disinfected. So nothing goes into the stream that hasn't been treated.

The total flow meets NPDES, National Pollutant Discharge Elimination System, permit limits for concentration. We believe that EQ basin effluent alone meets NPDES permit limits for concentration.

Our NPDES permit is about to be renewed by Ohio EPA. It appears that Ohio EPA is seeking requirements in the permit that would require a plant expansion, even though we currently meet concentration limits at all flow levels.

Given the high quality of our effluent and given the many competing demands for our municipal resources, we do not believe that we should be required to provide any additional treatment unless it is necessary.

Our sewer rates average over $300 per year per hookup. That's per household. This is a level that U.S. EPA recognizes as sufficient to properly maintain a system. At this point, we are not certain what our renewed permit will require. A number of factors will influence our permit renewal and the cost of implementation to our ratepayers.

Currently, the U.S. EPA is working on two main issues that could affect our permit. The first is the draft sanitary sewer overflow regulation that was signed by former Administrator Browner in the last days of the Clinton administration, but not published in the Federal Register. It is being re-examined by the Bush administration.

Among other issues, the preamble to the draft sanitary sewer overflow regulation requested comment on the level of treatment required for flows reaching the wastewater treatment plant.

I see I'm running out of time, so I'll get down here to the bottom.

We ask that you continue to monitor these issues both in the regulatory process and through confirmation hearings for the U.S. EPA assistant administrator for water.

If unsupportable determinations are made by the U.S. EPA, we would like to discuss with you options that may be available.

If rule interpretation continues in its current direction, then the city may be on a path with EPA to spend tens of millions of dollars to provide additional treatment for 3½ percent of total annual flow to the wastewater treatment plant in order to eliminate less than 10 annual EQ basin overflows, which are currently meeting all NPDES permit concentration requirements.

Again, I'd like to thank you for your interest in these matters, and to simply say that we are doing everything that is necessary and more. The water going back into the Rocky Fork is cleaner than the water already in there. To spend another $10 million to take care of that 3½ percent is ludicrous and wasteful. Our system's got better things that we need to spend the money on.

Thank you both for your attention, and I'm just about out of time. I've got 30 seconds. Thank you.

Senator CRAPO. Thank you very much, Mayor. We appreciate that.

Next, Mayor Vincenzo.

STATEMENT OF HON. ROBERT VINCENZO, MAYOR, ST. CLAIRSVILLE, OH

Mayor VINCENZO. Senator Crapo, Senator Voinovich, Members of the committee, I wish to express my appreciation for allowing me to appear before your committee, testifying on behalf of our small city's problem concerning our infrastructure.

St. Clairsville is a city of 5,100 people on the eastern side of the State, 10 miles from Wheeling, WV. We're located in Belmont County, one of the highest Appalachian counties. Our city is largely residential and service based. We are in the county seat. The largest retail area in mid-eastern Ohio is located on the eastern edge of my city.

In the early 1980's, the city took advantage of the Federal EPA's 75 percent grant to build our main wastewater treatment plant, a 950,000 gallon-per-day average design. We also rehabilitated sewer lines in the effort to limit infiltration and inflows. The latter has been largely a failed effort.

Although we've repeatedly tested for and eliminated inflow, we still have a tremendous amount of infiltration problems because our flow increases five-fold during wet weather.

Our old clay lines dating back to the 1920's act as a leech field collecting subsurface drainage. This causes flooding of the pump stations, the plant, and resident's homes.

In 2002, we will bid the replacement of four pump stations and 5,200 feet of lines, only 3 percent of our total, with an estimated cost of $600,000. In performing this upgrade in the 1980's, we achieved one of the highest wastewater rates in Ohio.

About 4 percent of our current department budget goes to debt service. According to the most recent OEPA statewide rate survey, issued in February 2001, for the 1999 calendar year, St. Clairsville's rate was in the 33d percentile.

Just after that study was published, the city boosted its rate another 7 percent in August 2000. If that number is factored into the OEPA survey, our rate is in the 12th percentile out of 444 systems reporting.

As a side note, customers take a double hit in that we are in the top 10 percentile in water rates statewide.

Additionally, while we are one of the highest rates in the State, our community is in the bottom third of the personal wealth. As these numbers indicate, St. Clairsville has taken steps itself by paying much of its own way. We have a competitively strong system, but our residents have a high rate burden. To fulfill our needs, the rates will go even higher unless there's some infusion of outside capital.

Ohio's Public Works grants have helped, but the effectiveness was diluted when the State allowed these funds to be used for road resurfacing and tailored the grant point system to rank these politically popular projects higher than wastewater projects.

Our wastewater rates constitute about 2 percent of household income. We do not believe we can push them much higher.

Briefly, our current needs include: First, flow equalization to prevent system surcharging, flooding, during storms; second, pump station and lift replacement; third, hydrogen sulfide control, and this gas occurs naturally and destroys concrete and structures in the collection system; and last, relocation or expansion of our city's second plant, a 90,000 gallon per day designed structure that is at designed capacity.

Relocation would allow us to move this plant from a congested area and extend service to an underserved area. In St. Clairsville's experience, expansion of wastewater treatment definitely yields new development.

These above needs total about $10 million for this basic utility.

We do not criticize the requirement for clean water, we support that. We do feel that the EPA's focus should be on communities meeting their permit limits and should not be micromanagement type control of plant operations.

Instead, EPA should focus on the discharge quality and not on regulating the specific increments of the process used to reach that quality.

The EPA was very helpful in assisting the city technically in solving a difficult treatment problem, which has stymied various engineering consultants. The work of the Ohio EPA solved the treatment problem and resulted in a nationally publicized technical paper to help others.

So what help do we need? Our answer is one you've probably heard too often. More money. We've dedicated our own resources to improving our systems, and we've taken the unpopular steps of pushing our rates to the limit. Our residents have shouldered the burden of support, but to restore these systems will take resources beyond that which we currently have or will have.

I'm aware that there's not an instant solution for our situation. However, I'm very appreciative of your concerns to conduct this hearing for some positive feedback, and I'm very pleased to have an opportunity to testify before your committee to provide additional insight to the plight of small cities and villages.

Thank you very much.

Senator CRAPO. Thank you very much, Mayor. That was very good timing, too. One second to go.

Mayor VINCENZO. With a little practice.

Senator CRAPO. I notice these clocks count back up when it gets to zero. So for the other witnesses, if you happen to see the red light on it, that's already the time you've used up that you shouldn't have. I'm starting to understand the system here.

I'm going to ask Senator Voinovich if he would ask the first round of questions.

Senator?

Senator VOINOVICH. Your major problem today is this additional treatment facility. You're going to have to meet new requirements for the overflow from a holding basin, when you have an incident of a storm, which is six or seven times a year.

Why are you being required to put in this additional facility, and what is it based on, and the cost—roughly the increase in cost to your people.

I guess the last thing I'd like you to comment on would be, I was not aware of these regulations that are being considered right now and I'd be interested in your opinions about those regulations.

Mayor REID. Well, first of all, we are in the process of negotiating a new NPDES permit, and this is the year that we will probably finish. We've been negotiating with the EPA on this permit for approximately 2 years, and one of the things that we have encountered all the way through this process is their concern about stormwater overflows. We went through an extensive, renovation process, and spent millions of dollars to——

Senator VOINOVICH. OK. One of the things I'd like you to clarify is stormwater overflow.

Mayor REID. Right.

Senator VOINOVICH. Basically means that this is water that's generated during a storm that goes into the holding tank or the holding basin? Or are we referring to stormwater overflow as that which the basin isn't able to handle and just——

Mayor REID. Right. We've spent $10 million to separate our sewers, our downflows from houses, et cetera, and make sure that we still have separate systems. When we have heavy rainfall resulting in high flows in the sewer, we usually treat everything. I think the EPA misconception comes in, because we do treat everything.

When we have a major storm, the combined sewage and stormwater flows over into the EQ basin, and all but about six times per year it receives full treatment.

Senator VOINOVICH. But, again, the EQ basin——

Mayor REID. Equalization, yes——

Senator VOINOVICH. Is that your stormwater, or does that include sanitary?

Mayor REID. That is stormwater and sanitory flow combined.

Senator VOINOVICH. So you have—your town, have you a separate system, separate sanitary, separate sewers——

Mayor REID. Right, but stormwater can get in the sewers.

Senator VOINOVICH. The sanitary is treated during a storm, you deal with that?

Mayor REID. Right, we treat storm and sanitory together.

Senator VOINOVICH. But what you're talking about is stormwater that would ordinarily go into your plant and be treated is now, then, put over, in a storm, into the holding basin, and in many situations, the holding basin isn't adequate to take care of it and that overflows into something else?

Mayor REID. Right.

Senator VOINOVICH. And you're being asked to deal with taking the water from the storm that goes into the basin because it's not adequate in terms of the regulation——

Mayor REID. That's exactly right. I have Mr. Angelo Klousiadis here, who is the plant manager, and he can give you the nuts and bolts.

Mr. KLOUSIADIS. Yes, if I could, thank you.

What we have is infiltration due to the age of the system, and when you get a heavy storm event, some of the stormwater infiltrates into the system. Even though it's a separate system, you get a lot of rainwater.

What happens is all of that infiltrating stormwater then combines with the already existing sanitary sewage and comes into the plant. The plant's designed to handle up to 18 million gallons through the normal operation. Anything above that rate, 18 million gallons-per-day rate is diverted over to the EQ basin that slowly starts to fill.

If the storm event is short, we bring all that water back into the plant when the flow starts to abate. If it continues, and it overflows the EQ, that overflow is a combination of stormwater and sanitary sewage.

But, again, that overflow has already had primary settling, some aeration and full disinfection. So it is partially treated and then that overflow comes into combination with the existing treated effluent of the wastewater plant, and the junction where those two flows come together is monitored. At that point, all the NPDES permit concentration limits are met.

We've never had a violation at that point. Any violation the plant's ever had, which is three violations out of the last 15 months, has been at the effluent, where the fully-treated sewage is discharged. So the wet weather EQ overflow has never resulted in violation.

Senator VOINOVICH. But the storm overflow could include in that holding basin—you could have some sanitary waste?

Mr. KLOUSIADIS. There is.

Senator VOINOVICH. That's because of the fact that you have this—the problem that Mayor Vincenzo has, the sewer system is so old that the water ends up going into the sanitary system?

Mr. KLOUSIADIS. Most systems would have that, Senator, because you have a lot of manholes. During heavy rains, it'll naturally come into your sewer.

Senator VOINOVICH. Basically what you're saying, under the current setup, you think you're doing things adequately and that the water—the effluent that goes into the creek is higher quality than what's in the creek?

Mr. KLOUSIADIS. Correct. The permit limits were based on what the aquatic life of the creek and human health requirements could support.

Senator VOINOVICH. So you'd like the regulation to be revisited?

Mr. KLOUSIADIS. That's correct. We would like to be able to say that if the water leaving our treatment plant during normal operation is good enough to enter the creek without creating a problem, then why should the combined, if it still meets those same concentration numbers, create a problem.

Senator VOINOVICH. OK. The cost of it is roughly—you were talking earlier and said $10 million if you go to overflows.

Mr. KLOUSIADIS. That's hard to determine, yes.

Senator VOINOVICH. Could you say conservatively, if you build—you're saying $300 a year. If you—conservatively, if you build this, you ascertain it would probably cost the citizens about $600 a year?

Mr. KLOUSIADIS. I think that's a very fair estimate.

Senator VOINOVICH. And could be more?

Mr. KLOUSIADIS. It could be more. Because along with that, additional improvements to the collection system may be requried.

Senator VOINOVICH. In terms of the environment, your position would be that you're treating the water at high quality, that you're returning it into the—you're getting rid of the chlorine and all the other stuff and you're turning it into a stream that—whose quality is less than what—the effluent that you're putting into it?

Mr. KLOUSIADIS. Yes, sir.

Senator CRAPO. Could I ask a few questions on this line before you go on to the next situation?

Senator VOINOVICH. Go ahead.

Senator CRAPO. It seems to me, from what I'm hearing here, that the water—if you do have to make the changes and do the $10 to $20 million additional reforms of the system, the water you're putting back into the creek or to the river will not necessarily be any cleaner; is that correct?

Mayor REID. Not exactly. What we're putting in the river now is better than what's there already and meets permit concentration limits. If we have to provide even more treatment, it will waste public resources.

Senator CRAPO. Is there any issue with regard—if you know, is there any issue with either the Ohio EPA or the U.S. EPA with regard to whether the existing standards, which you do meet, are adequate?

It's my understanding that everybody believes that these standards are now the standards we desire to achieve, and if they are adequate—do you have any different understanding?

Mr. KLOUSIADIS. The concentration limits that we have are those which are set by Ohio EPA and, again, are very conservative and are based upon what that stream can support to not create any pollution or risk to the aquatic life. We're meeting that, and we would never ask to increase them.

All we're saying—there is another aspect to consider, and that's called load. During the times that you discharge into these streams, you usually have higher volumes of water in the stream itself, due to the storm. So the impact of the effluent is significantly less. There are now some people that are looking at load and what the stream can handle and asking whether there should be a tiered effluent limit.

We're meeting the standard which was set by EPA for concentration, yet we're being told to clean it up more. That's what I'm saying, we don't know where that more ends.

Senator CRAPO. Thank you.

Senator VOINOVICH. You're a small town?

Mayor VINCENZO. Yes, sir.

Senator VOINOVICH. Do you have any idea of what your average person pays a year in rates?

Mayor VINCENZO. Well, yes, I can tell you, Senator, the—for 8,000—to treat 8,000 gallon of sewage, and also to treat 8,000 gallons of water—and our sewage rate is based on our water consumption, each is identical and is $43.60 each for 8,000 gallons of water and 8,000 gallons of sewage. So that leaves a total monthly bill, just for 8,000 gallons, over $87 a family.

Senator VOINOVICH. You're talking about 80 bucks, about?

Mayor VINCENZO. Eighty-seven bucks a month.

Senator VOINOVICH. So you're talking $90, close to $90?

Mayor VINCENZO. Yes, that's a thousand and—$1,080 a year, just for 8,000 gallons a month consumption of water and sewage treatment.

Senator VOINOVICH. Then you said the average was 2 percent of the income of the people who live in your area?

Mayor VINCENZO. That's about 2 percent of the income.

Senator VOINOVICH. Do you think that there should be a special program—well, let's ask you this first question: Are you being required to do some things right now that you're not doing based on new regulations, or is what you're being required just to meet the current standards?

Mayor VINCENZO. Yes, we're being required—as I mentioned earlier in my report, we have 13 sewage lift stations, pump stations, that go into forced mains, and we're being required to rehabilitate these 13 lift stations, and almost all require some type of maintenance.

The four—we're doing four right now that are under bid for the year 2000, and these four will constitute $600,000 to rehab four of our 13 lift stations. We've done this with an Ohio Issue Grant, with the city supplying over $150,000 of our own money for this grant that will total $600,000. That's just to do four stations.

Senator VOINOVICH. But the question is this: You're doing that to meet the current standards?

Mayor VINCENZO. To meet the current standards.

Senator VOINOVICH. It's not any new regulation coming from Washington, this is a question of an aging infrastructure that needs to be repaired in order to just maintain the current——

Mayor VINCENZO. Correct. These four stations that we're currently doing now are the worst, and they are almost out of operation.

Senator VOINOVICH. So the point is you've got two problems here. I think that's real important that I think the committee understands.

We have an aging infrastructure problem in many places in the country. Some of it is probably still from what we built from back at the end of the early 1970's, and so forth, some of those have deteriorated. That's one problem.

Then you have another problem, Mayor Reid's problem, they're asking the new regs to even go more than that.

Mayor VINCENZO. Yes.

Senator VOINOVICH. But your problem, basically, is just with the infrastructure?

Mayor VINCENZO. Well, we have——

Senator VOINOVICH. I mean, to maintain——

Mayor VINCENZO. Yes, besides that, our storm sewer water is also definite—has a definite impact on our sewage system which does flood our plant from time to time because of the infiltration. Our system is not unique. We do have a separate stormwater and sewage wastewater system.

Our stormwater builds up so much pressure during the heavy downfalls that it is aging also and it will force itself into our sewage—our wastewater lines that will also create tremendous pressure and will lift manhole covers during heavy downfalls.

Now, these areas, of course, are in residential areas that would require a massive rehab job to replace both equally storm sewers and wastewater lines.

But also there's a mandate coming from the EPA at this time that we are to be directing toward stormwater treatment that will be coming into our area, also, which will be another considerable mandate that we'll have a struggle to work through.

Senator VOINOVICH. OK. Because I've got legislation right now that authorizes the safe—the Water Revolving Loan Fund, working with about a million, $350 million, $15 billion. Those are loans. But there really isn't any grant program to the communities. Senator Crapo is responsible for amending the authorization bill to provide, I think, a $1½ billion for grants. We're trying to get this administration to put $750 million in their budget.

By the way, in their initial budget, even though it was a 4 percent increase, there is now—there isn't the money to fund even the current funding of the revolving loan fund. They put in about $850 billion instead of 1.3½, and they put in about $450 and a million into the grants program.

So you're going to have to lobby very hard to make sure that that then gets upped.

Then the next issue is how do we deal with this thing over a longer period of time. But would you—I'll finish with this question to you, Mayor. You're not able to handle this by yourself?

Mayor VINCENZO. Definitely. Definitely not.

Senator VOINOVICH. And your water goes into the Ohio River?

Mayor VINCENZO. Ultimately, yes. Yes. We have—I think, if I'm not mistaken, I could be corrected by my service director, I think we're presently dumping our stormwater into about four different streams, and our wastewater into two different streams—I'm sorry,

one different stream at this time, which ultimately ends up in the Ohio River.

Senator VOINOVICH. OK. One piece of good news, the Ohio River's quality report is better than it's been, but you still can't go swimming in it.

Mayor VINCENZO. Yes.

Senator VOINOVICH. Thank you.

Senator CRAPO. We want it to be fishable and swimmable and drinkable, right? Mayor Vincenzo, what is the population of your town?

Mayor VINCENZO. Five thousand and one hundred people. We just made the census.

Senator CRAPO. Just like a lot of towns in Idaho. I'd like to follow up on one of your aspects of testimony that really struck a cord with me. It's one of my own pet peeves, if you will, and that is you indicated in your written testimony, and in what you presented to us today, that it's your belief that EPA's focus in terms of administration of the environmental laws, at least these environmental laws, should be more on discharge quality rather than micromanagement of the systems that get you to what is discharged in the end.

This is a debate that we've been having in Washington now for at least the last 9 years, since I started in Congress.

I can just tell you that when I served in the House, I was put on an environmental task force by our House leadership to try to figure out a new approach to addressing environmental issues in the country, and one of the things we talked about there was whether we should move from the micromanagement approach that we now have at the Federal level to one in which the Federal Government sets the standards for water quality or air quality, or whatever the case may be, and says this is the quality of environment that we seek to have and will establish by law in the United States, but then let the statutes and the local communities and the local government authorities figure out how to meet that standard.

Instead of Washington having a one-size-meets-all-cookie-cutter solution that many of us believe often causes more problems and costs a lot more money and doesn't necessarily reach the quality of cleanup that we could achieve, we'd probably have hundreds of different approaches, and the best ones would rise to the top and communities around the country would be able to watch what each other does and find what works.

I assume that that's the kind of approach that you would support, but I'd like to ask your comment on that.

Mayor VINCENZO. Well, yes, I'm very glad that we are back to revisit that statement I made.

We have some of the most qualified people in our department in the water—wastewater program, and they are very capable to deliver the quality of water on the other end of that plant without any other standards brought into us that just makes us jump through hoops, doesn't really accomplish anything more, except to put an additional equipment that sometimes does not solve the problem to come out with that water to be equal—to be quality water at the end.

We just feel that a lot of the mandates have been given to us to accomplish this, we've already been accomplishing it, and our standard at the other end—at the discharge has not increased any differently than what we've been doing all these other times before we've had to modernize and to put in additional equipment that didn't provide any better discharge at the end.

Senator CRAPO. Mayor, all of the discharges from your city meet the necessary standards, though?

Mayor VINCENZO. Yes, it does. It does. If that quality falls below that, then, of course, the EPA right away is in on us to post our discharges as to a violation. So, you see, our testing is done regularly and they are receiving our testing monitor regularly.

Senator CRAPO. When you're found in violation, do you have to pay fines?

Mayor VINCENZO. There was, I believe—Mr. Bigler, did we ever assess the personal fine?

Mr. BIGLER. No.

Senator CRAPO. That's good news. I'm going to ask you a question. You might find this question surprising, but I'll explain it after I ask it.

Do you and the people of your city want to have clean water?

Mayor Vincenzo. Yes. Oh, definitely. Definitely.

Senator CRAPO. You just told me that you have good, competent people that are there who are capable of meeting the national standards that you've been——

Mayor VINCENZO. Yes.

Senator CRAPO. The reason I ask that question, in the debates we have in Washington, when many of us say we should have national standards but let our cities and counties and States figure out how to meet those standards, the response we're often given is that the cities and counties and States won't do it. They don't want to do it. We have to have the Federal Government make them do it, or that they can't do it, they don't have the ability to do it, so we have to have the Federal Government step in and show them how.

What do you think about those responses?

Mayor VINCENZO. Well, that—I guess that could be a possibility. I mean, I think you know our society is such that we have rules that a lot of people will follow—most of the people will follow the rules and other people won't, and that's perhaps the reason we have prisons in our States today, because of that.

But also the fact that there are some communities, perhaps, that aren't able to do this, but what I'm saying, I believe that the final discharge, which should be the decision that the EPA would make, to say, "Well, St. Clairsville's doing a commendable job, therefore we don't see a reason to come in and to change their method".

If another city is not doing that, then I think it would be the ideal situation for the EPA to then come in and say, you're not meeting your violation, therefore, you're going to have to put this system in to make sure that you're going to be doing this.

Senator CRAPO. In other words, have the micromanagement if you have a case in which it's established that the government entity responsible cannot or will not meet its responsibility?

Mayor VINCENZO. Definitely. Definitely.

Senator CRAPO. Mayor Reid, you just listened to this line of questioning. Would you like to comment on any aspect of it?

Mayor REID. Well, certainly I know that we have very qualified people, and I've got one of the top guys right here. We believe that we want the best possible water for our citizens. We all want that. Whether some cities are capable of doing that—again, I agree with Mayor Vincenzo, I think that if the regulatory agencies see that you aren't meeting the standards set forth in your permit, and you continuously can't meet those standards, then obviously big brother's got to come in and tell you that you have to do something different.

But when we always have met the concentration standards of our NPDES permit, I do not understand why the EPA doesn't go micromanage somebody that has problems.

We are doing an incredible job. We have wonderful water. We even sent our drinking water in to try to win the National Mayor's Association Best Water in the United States. We take pride in our water. I think that, you know, there are only so many resources to go around, and if you could take that resource and direct it toward an area that needs it and leave us the heck alone, because we're doing a great job, then I think that's proper. I totally like your line of thinking, Senator Crapo. That is just exactly what we say.

Senator CRAPO. Thank you. I'll just conclude my questions, then, if you want to ask——

Senator VOINOVICH. I'm finished.

Senator CRAPO. I just want to note in one part of your written testimony that you didn't have time to get to, you talked about the fact that the U.S. EPA recombination on flows is being re-evaluated now and hasn't been finalized, and I noted one of the things that's under consideration is whether the permit issuing authority, NPDES authority, which in this case would be Ohio EPA, would have the flexibility to address some of these issues and to allow the elimination of some of the micromanagement as long as the objectives were being achieved.

I was pleased to see that, and I'll tell you I'm going to go back and a talk to Christine Todd-Whitman, and some of the others involved there, and see if they can hurry up this evaluation and come out with a more flexible approach so we can have more involvement at the State and local levels.

Mayor REID. I appreciate that very much, Senator. Because the Ohio EPA has been very good to work with. Generally, the problems we've had over the many years I've been in government, the Ohio EPA is on our side. They try to help us all they can, but then they run smack up against the Federal regs. It seems like the fed guys are—they've got this hard set of standards that are sometimes impossible. I don't know if they sit in an office somewhere and dream these up, but the Ohio EPA's down here in the trenches. They know what's realistic and what's not. I think Chris Jones will tell you the same thing.

Senator CRAPO. Just to kind of give Chris an opportunity to know where I'm headed, that's one of the questions I'm going to ask them. I know in Ohio, we see them doing things that in my opinion, is nuts, and when I get an opportunity to talk them in

these kinds of forums, I ask them about that, and almost every case, their hands are tied. They're doing what they have to do.

Mayor REID. Exactly.

Mayor VINCENZO. Exactly.

Senator CRAPO. One of the problems, to create the flexibility and do so in a way that does not jeopardize the quality of our environment. I think we can do it.

All right. We thank you both for your attendance here, and your input is going to be very helpful to us.

Mayor VINCENZO. Thank you very much, Senator Voinovich and Senator Crapo.

Senator CRAPO. I forgot to announce to those of you who may have seen the schedule, we're going to break this into three panels instead of two panels, and the way we're going to do that is we're going to ask—and I guess—I better get this right. Yes, Chris Jones. We're going to ask Chris to come and do a panel all by himself.

Chris is the director of the Ohio Environmental Protection Agency for the State of Ohio.

We will then have the remaining four witnesses in the last panel. I forgot to announce that, and I apologize.

But, Mr. Jones, we appreciate you coming here today, and we look forward to your testimony, and I think we'll have a very interesting dialog as we evaluate the issues. Please proceed.

STATEMENT OF CHRIS JONES, DIRECTOR, OHIO ENVIRONMENTAL PROTECTION AGENCY

Mr. JONES. Thank you, Senator Voinovich, Chairman Crapo, and thank you for allowing me to speak about the wastewater needs in Ohio communities. Those needs are great and the resources to address them are not currently adequate.

The Clean Water Act has brought about tremendous improvement in the quality of Ohio waters. By mandating control of point source discharges, including sewage treatment plants, the Act has enabled many streams to recover from low oxygen conditions, excess phosphorus discharges, and other degradation.

There are many dramatic examples of the results, most notably, perhaps, the renaissance along the banks of the Cuyahoga River in Cleveland and the resurgence of Lake Erie as a world-class fishing destination. I understand that Senator Voinovich may be planning some fact-finding missions to the lake this summer to confirm for himself that the walleye and perch are really biting.

Senator CRAPO. He may have to invite me back.

Mr. JONES. In the 1970's and 1980's, as has been mentioned, many of the infrastructure projects that enable water quality improvements throughout the State were funded through the Federal Construction Grants program, which provided 75 percent of the cost of the sewage treatment infrastructure mandated by the Clean Water Act. As you know, that was converted to a low-interest loan program administered by the States.

The State Revolving Loan Fund program is currently due to be re-authorized, and I know that Governor Taft has written you to express his strong support for your bill to do that, Senator Voinovich.

We are particularly pleased that S. 252 would double the current level of funding to $3 billion a year over 5 years. If enacted by Congress and signed by the President, it will greatly assist communities in Ohio and throughout the Nation with the construction, expansion and improvement of sewage treatment facilities.

However, even doubling current spending will not adequately meet the mandates in the Clean Water Act. I'd like to briefly outline the needs in Ohio, and then suggest two areas in which targeted resources are particularly needed.

Ohio EPA is in the process of updating the Clean Water Needs Survey, which we do every 5 years in cooperation with the U.S. EPA. Unfortunately, our results for this year aren't in, so I'm going to give you some figures based on 1996, and I've included a summary with my testimony. We hope to have more current numbers by the summer.

In 1996, the infrastructure need in Ohio, according to the survey, was $7.4 billion. That can be further broken out as follows: $1.1 billion for wastewater plant construction and improvement; $900 million to repair existing sewers; $900 million for construction of new sewers; $97 million for stormwater controls; $198 million for nonpoint source pollution abatement; and $4.2 billion for combined sewer overflow elimination.

Obviously, combined sewer overflows that account for more than half the infrastructure needs in Ohio, and even with the dramatic increases in low-interest loan dollars, the burden is too much for many communities.

There are 92 Ohio communities with combined sewers, and they range from the largest of our cities—such as Cleveland, Akron, Toledo, Youngstown and Cincinnati—to very small communities, like Van Wert and Lisbon. In fact, a total of $16 million for CSO controls is needed in communities with fewer than a thousand residents.

As an example, Port Clinton, a northwest Ohio town of a little more than 7,000 people, has completed a combined sewer system long-term control plan. The plan recommends improvements over the next 5 years of between $8 million to $14 million. Port Clinton's annual average sewer rate is now $566, which is 77 percent higher than the State average.

To pay for the improvements, in today's dollars, the average sewer bill will increase to $846 in 2004, and $1,132 in 2010. These projections already include a $1.5 million grant expected in 2002 as part of a previous budget bill.

The second area where Ohio would like to see targeted Federal grants is to provide sewers in low-income areas where failing septic systems are causing public health concerns.

It's difficult to believe that in the year 2001 in the United States, people are living with raw sewage in the back yard, in the drainage ditch, or in the creek. But it's true in far too many communities.

The 1996 Clean Water Needs Survey identified 199 areas in Ohio with high densities of failing on-lot septic systems, a number we believe significantly understates the real need. We are attempting to gather more accurate information in the survey that is ongoing now.

Exposure to drainage from failing systems threatens public health, but the threat doesn't end there. Pooling effluent is a breeding ground for mosquitos, which carry encephalitis, including the form known as West Nile Virus. We expect to see that virus this year in northeast Ohio.

I'm already over my time limit and I have a lot of recommendations. I would like to make three real quick ones, and they address some of the questions you asked, Senator.

First, State primacy needs to mean State primacy. The Clean Water Act should explicitly articulate minimum standards that States must meet, and then delegate the program. Once a State is awarded primacy, there should be no independent Federal presence unless the State fails to perform its obligations.

Second, U.S. EPA needs a better grant program. Under the Federal Clean Air Act, we have one grant for programs. Under the Clean Water program, we have several grants, and we spend a lot of time and money just tracking the money. That money could be spent on programs.

The last point: we need to recognize that when everything is a priority, nothing is a priority. We have right now U.S. EPA pressing us, and ultimately these people behind me, to move forward on all fronts. We're talking about industrial permits that need to be updated every 5 years, sewer overflows, stormwater, wetlands, coastal areas, stream uses, and we don't have adequate funding for any of them. So we're trying to do a little bit of everything and not enough of anything.

I've also included all the recommendations, and I'm sure we can get to them.

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

Senator Voinovich.

Senator VOINOVICH. I'm interested in the issue of setting minimum standards and then giving the authority over to the States to run the program.

It's very difficult to get the Federal EPA to do that, because as Senator Crapo said earlier, too many people in the agency and, frankly, too many people in Congress don't believe that people on the State and local level care as much about clean water and the environment as they do.

We just went through that recently with the groundfills, and Senator Crapo helped me with my amendment to try and give more certainty and more to the States. But there was strong opposition in our committee for that, because they wanted the Federal Government to micromanage this operation.

So this type of attitude just flows throughout the agency. No matter what issue it is, they are very reluctant to give up any of their controls. I'm interested in your commenting a little bit more about those areas where you feel that they're too intrusive and ought not to be involved.

Mr. JONES. Senator Voinovich, I couldn't agree with you more. The automatic response is that there will be a race to the bottom, and I just don't believe that that's the case. I can cite all kinds of statistics about what the States are doing.

I think there's been a dramatic change. Seventy percent of all the Federal statutes are now delegated to States. Depending on how

you count that, over 90 percent of the enforcement activities are done by the States now. I think that statistic all by itself tells you that we're not interested in walking away from the problem. In fact, we will take the enforcement actions that we need to.

It can be simple things, Senator. For example, we're required to renew permits every 5 years under the NPDES program. We spend lots of time doing that on a lot of permits where there's no need to do it. Where we have a wastewater system that's performing, and is always meeting standards, it's a paper exercise but we have to go through it, and it takes a lot of time. So we could make 10-year permits instead of 5-year permits, and make better use of our resources.

I mentioned targeting some of the grant money as opposed to loan money. Even with the 0 percent loan, in some cases, you've still got to pay it back. If your community is at the poverty level, you can't do that. We have tremendous rate increases.

The flexibility that has been discussed before goes to bypasses in large measure. It's, in a sense, what gets us into micromanagement. For example, where do you count the bypass? You have situations—I'm sure you'll hear from Toledo about the central internal bypasses, a bypass within the system. We're forced to count that as a bypass, and that's a violation. It doesn't really make sense if, at the end of the day, there is, in fact, effluent coming out the end of the pipe that meets standards.

There are other provisions. One of the things that I would like to see evaluated is what States are doing with anti-degradation. As you know, Senator, we spend a lot of time, a lot of effort, dealing with the anti-degradation provisions.

When I go to my national meetings, I don't hear other States being concerned about anti-degradation. When I mention it, because it's been so difficult for us as an agency to deal with, it's not even on the radar screen. This tells me we're doing something really wrong, or everybody else isn't really following the law. The goals of anti-degradation make a lot of sense.

Senator VOINOVICH. Can you explain that a little bit more.

Mr. JONES. Sure. Anti-degradation essentially says in order to continue to make progress toward the fishable, swimmable goals, we need to keep clean waters clean. That is, we should not allow for further degradation. In fact, we should improve waters that are impaired. That's a laudable goal. That's a goal we all share.

But what has resulted is a tremendous exercise in alternative analysis that is costly just to get through the permit process. In many cases, a huge number of cases, you end up back where you started from in terms of what you wanted to do to improve your system.

So we have a fundamental question, does the anti-degradation provision work? Is it actually improving water quality?

A simple analysis of what States are doing with respect to the anti-degradation review, and is it having a real impact on improving water quality and maintaining clean streams, I think would be a real benefit to everybody.

Earlier, I mentioned briefly block grants. We have separate grants for almost all of our individual water programs, whether it be wetlands or large wastewater operations. Simplifying the grant

process will save us a lot of money and make us able to use that money creatively, if we don't have to track every dime 15 different ways from Tuesday.

I think that, again, goes to Senator Crapo's comment about micromanagement. If you believe that you can't trust us with the money, you're going to watch every dime that you give to us. If in fact, you believe we will try to improve water quality, you're going to give us a lot of grants, and we in Ohio can best figure out how to use those dollars.

We're right in the middle of a budget debate right now in this State, and we're looking at options for cutting back on some of our programs.

The last one I'll mention is the TMDL program, total maximum daily load. What are the loads to a stream and where can we go from here? We have a fairly active program in Ohio, but what we're really trying to do through our 319 grant program, and others, is to involve the community to create situations where there's a community investment in the solutions.

There's not a lot of command and control that goes with TMDL and non-point discharges. We don't want that. The last thing we need for this kind of impact to streams is a command and control system.

To make it work, it's going to take watershed groups, locals who have an investment in the stream, to come up with their solutions to these problems. In some cases, it'll be a community that wants to take a dam down. In other communities, that dam may have important historical significance for the community and they want to do something differently.

Whether it's Columbus or Washington, if we tell people exactly how to do something like that, people don't want to do it. Ultimately, you don't get the kind of water quality improvement they'd really want.

I'm sure there's folks behind me that will tell you even more specifics of where they've had a problem, and it's ultimately my staff telling them, "You have to do it this way." For me, it's never a satisfactory answer, when we have to tell them in response to their question, "Why?" "Well, because the feds are making us do that." It makes no sense. It never makes sense. It's "the feds are telling us do that."

Senator VOINOVICH. Do you have a national group that could come back and make recommendations to this committee about things that would improve your relationship with the Environmental Protection Agency. That would give you more flexibility, not waste your time on things that you ought not to be wasting your time on and overall achieve a better, cleaner water environment, but do it in a way that's so much more cost effective than what we're doing today?

Because I keep hearing about this problem and anti-degradation and some of these other things, and it's difficult for the subcommittee to try and figure out what we ought to do. We need a comprehensive report back about things that are there that ought not to be there, and share those with Christine Todd-Whitman. If there are things that she can't do because of Federal regulation,

then we can look beyond those regs to the Federal law that makes her feel that she has to do those.

Mr. JONES. Senator, as the Ohio EPA director, I belong to the Environmental Council of the States, which is all of State counterparts.

One of the things we did as a result of an amendment in last year's budget was to look at the enforcement issue on exactly that kind of basis. What are the States doing, what can we do better? It, again, gets to primacy. The feds never believe that we're doing a good enough job, no matter what we do, so we've got an earmark and we did a study on State enforcement efforts, which was submitted to Congress.

I think the same type of thing can occur with respect to water issues. We have a very active water committee on ECOS, and have done a number of things. One of the things that the organization as a whole did was submit an issues paper to the incoming administration.

I'd be happy to get a copy of that to the subcommittee. It's not specific to water, but it has a number of recommendations.

If I boiled it down, I think it is the difference between being a stakeholder and a partner. If, in fact, we are co-regulators, that we implement the Federal regulations at the State level, we need to be partners, as opposed to just another stakeholder of U.S. EPA.

In Ohio, we have lots of stakeholder groups, and work very effectively with many of the people in this room as well, but we need to start moving to the next step, which is to move from stakeholders to partner, so that when we're trying to implement TMDLs in a watershed, it's not Columbus coming to tell them this is the way we think you ought to do it, but it's Columbus working in partnership with the watershed group, and soil and water conservation, and the metropolitan sewer districts to come up with the best solutions for the economy.

When I try to boil this down, that's the difference. Right now we're a stakeholder of the U.S. EPA. We should be partners as co-regulators with the U.S. EPA.

Senator VOINOVICH. Thank you.

Senator CRAPO. Thank you. Most of my questions have already been answered either by your testimony or by the dialog between you and Senator Voinovich, Mr. Jones, but I just want to quickly hit a couple things.

I really appreciate the recommendations that you've made in your testimony, and I can assure you that we will take those very carefully into account as we move forward. I especially liked the section about making sure that State primacy means primacy.

I assume that you would agree with this, but I want to be sure to ask you directly, in terms of trying to move toward a system in which the Federal Government sets the standard and then lets the States and local communities determine how best to achieve it, would you agree with that type of direction in our environmental policy?

Mr. JONES. Absolutely, Senator. In fact, I think that's what the model is supposed to be.

Senator CRAPO. I think that's what it was supposed to be, but go ahead.

Mr. JONES. I really think when you look at it, the system that allows for these programs to be delegated to the States, says we're going to set the standards. The United States is not a monolith; the State of Ohio has significant differences between the southwest part of the State, the northeast part of the State, and the northwest part of the State. We have very significant and differing issues to deal with, and we need to be flexible.

Multiply that times 50 States, and the Federal Government needs to be willing to say, "OK, here's the standard, you figure out how to meet it".

I think that's the way these environmental statutes are structured, although not always implemented.

Senator CRAPO. I agree with you. In fact, I think that in Washington, we have, in a rather typical way, come up with a whole new definition of what delegation means. Because as I think you said earlier in your testimony a significant amount of the activity in the Federal environmental law is now delegated to the States, and they do have so-called primacy, and they are administering the Federal programs.

But what I run into consistently is that behind the State's so-called primacy and the State management is the big brother's heavy hand at the Federal level, and that the State regulators are essentially operatives of those Federal program managers, and they really don't have the primacy or the independence to make those flexible decisions they have told us they need. Would you agree?

Mr. JONES. I would agree, Senator.

One of the things that we have created in our agency is an assistance unit that many of these folks have worked with to try to find those creative solutions to these difficult problems. You know, you run into the brick wall.

I think it's interesting that U.S. EPA, through Project XL, always talked about alternatives and creative innovations, which are creative and innovative until you submit them for approval, at which point, you're not following the regulations, and thanks a lot.

I will tell you, I could improve our water quality tomorrow just by the way we look at our water quality data. If we just looked at chemical criteria, the number of streams and water bodies in this State that meet water quality standards would go up.

But what we've chosen to do is look at the biological criteria, look at more than what's just the chemical quotient. Now, that causes me some problems with these folks, sometimes, because we take a harder look, but it's a more realistic look at water quality.

U.S. EPA has flown our guys all over the country to teach people how to do this, but every time we've submitted a rules package or asked for biological criteria—because in some cases it will cause the chemical number to be higher—they've rejected it. So it seemed ironic that they want us to teach everybody how to do it, but when we try to put it into our rules, we're not allowed to. I think that's sort of the perfect example of where you run into that Federal inflexibility. They even acknowledge it's a good idea, but they just can't bring themselves to allow us to do it.

Senator CRAPO. That's a good example. Before I conclude, I just can't resist asking you a question, although it's a little bit of a divergence, but you brought it up, the TMDL issue.

As you're probably aware, we had a tremendous battle last year in Congress—in fact, for the last 2 years in Congress—over the EPA's proposed TMDL rules and regulations, which ultimately we ended up delaying once and then delaying a second time, in which the EPA is now evaluating, and we'll see where they head.

But at the time when we were evaluating this, the same issue came up, the States by and large were handling non-point source inclusion through best management practices rather than through the new TMDL program. The question that came before the committee was whether there was a problem or whether we just had a debate over this new regulation that was going to be very expensive and divert a lot of resources.

Do you have an opinion on that? Did we need to or do we need to move to a new TMDL program or are the programs that the States were administering adequate?

Mr. JONES. Senator, we do believe that non-point source pollution is where the bigger problem is now. We have done a pretty good job at controlling the point sources. We've ratcheted down discharge limits to where, frankly, you can't do much more, short of zero-discharge limits, which are cost prohibitive and probably impossible. So, we think you do have to go after the non-point sources, agricultural runoffs.

Having said that, I think the TMDL program, at least in Ohio, the way we were developing it, was very much on a volunteer basis, essentially best management practices, encouraging local cooperative efforts to address some of these issues. Our biggest concern with what was approached is we're sort of headed back to the command and control.

In particular, when you're talking about diffuse impacts to streams, my view is it won't work.

When you have a discrete point source discharge, everybody knows where it is, and everybody understands that's what you have to control.

When you're talking about runoff impacts to the stream from non-point sources, it's not so simple. You start to get into, in a sense, some of the social behaviors. You're talking about agriculture that has been encouraged probably 50 ways from Tuesday in opposite directions, but there are means by which we can address some of these problems.

They won't work if we're just telling people, this is exactly how you have to do that. We have to create a system that encourages best management practices. Best management practices will change; that's the nature of them. But I think that's the way we're going to succeed with the non-point sources.

So, yes, there's a need for a TMDL program, but it needs to be a cooperative, voluntary one. The rule that was proposed last year, I think, is moving exactly in the opposite direction.

Senator CRAPO. Thank you.

Senator VOINOVICH. That's basically just TMDL, let the watershed work come up with it, come back with the recommendations, don't force you to try to come in and do it. A lot of the communities tell you you don't have the staff to do it anyhow, and that would save money and you get the buy-in from the community. You create

public value with the various groups that are there that want to participate.

My last question is, do you believe—are you familiar with the WIN Proposal?

Mr. JONES. I've not read the whole thing, but I'm familiar with it, yes.

Senator VOINOVICH. Do you think that we ought to go forward with a major program in terms of loans and grants, combination programs, that would take this thing up?

Mr. JONES. I think not only do we have to, I think it won't happen any other way. I think what you've heard already, what I've tried to say and what you're going to hear is, there is a significant infrastructure need that was met in the past with fairly strong Federal program.

We're, in a sense, flipped now—75/25 because it's now mostly loans. I don't think there's any feeling that we shouldn't contribute as a State and local communities.

I think there's a real need, but when you're talking about billions of dollars in infrastructure, that's something that communities by themselves and the States by themselves simply can't address. It's just going to get worse.

It's interesting, I was thinking about the infrastructure question. Senator, you're familiar with the water main breaks in Cleveland in the last 5, 6 months.

Senator VOINOVICH. Major.

Mr. JONES. Major ones.

Senator VOINOVICH. In fact, I was told not to come to my Federal office because the water was running around the Federal building.

Mr. JONES. Just outside this building, there's a famous picture of a Mercedes Benz in a sinkhole because the pipes just gave way. That was 10 years ago, or more. It's a problem that's getting worse that needs to be addressed. Because, from my perspective as an EPA director, it starts to impact water quality, and that's what people are concerned about.

Senator CRAPO. All right. Thank you very much, Mr. Jones. We appreciate your time.

Senator VOINOVICH. Thank you for being here.

Senator CRAPO. We'll call up our last panel today, which is Mr. Erwin Odeal, who's the executive director of the Northeast Ohio Regional Sewer District in Cleveland. I understand we have Mr. Robert Stevenson, the Commissioner of the Department of Public Utilities——

Mr. STEVENSON. City of Toledo.

Senator CRAPO. Mr. Patrick Karney, director of the Metropolitan Sewer District of Greater Cincinnati. Mr. Patrick Gsellman, who is the manager of the environmental division of the Akron Engineering Bureau of the city of Akron. We appreciate all of you being with us today.

We will begin with you, Mr. Odeal.

Senator VOINOVICH. Could I mention, also, if you could just kind of quickly talk about the years you've had in this business, so we can get—I want to say to you, Mr. Chairman, you couldn't find a better panel of people to give you a cross-section of what's going on. They've been in it a long time. They've got different perspectives,

and I'm tickled that you're here. Because we would never have the time to get this kind of testimony in Washington. It would never happen. So we're really looking forward to seeing what you have to say today.

Senator CRAPO. Thank you.

STATEMENT OF ERWIN ODEAL, EXECUTIVE DIRECTOR, NORTHEAST OHIO REGIONAL SEWER DISTRICT, CLEVELAND, OH

Mr. ODEAL. Senator, Mr. Chairman, in terms of years, the testimony says here I've been around for almost 35 years in this business out on the front lines, all of it, really, working in the Cleveland area, city of Cleveland, with the Regional Sewer District. I've been fortunate to be a part of the Association of Metropolitan Sewage Agencies. So I appreciate the chance to be here today and talk about the future of the national and Ohio's water quality.

The district, since its creation in the 1970's, has invested over $1.6 billion for capital improvements to the wastewater conveyance and treatment system. These improvements include upgrades in treatment plants, construction of five interceptors, and numerous relief sewers.

The Clean Water Act financed 40 percent of the cost of this project, with the balance paid for by the district's ratepayers, either as repayment of low interest loans or as pure district funds.

The most——

Senator VOINOVICH. Erwin, would you mind, even with my hearing aids, I'm having a tough time.

Mr. ODEAL. OK. It's not the first time, Senator. I remember—just as divergence—when I used to work for the State of Ohio, I think the recorder used to tell me to slow down all the time when I was testifying. I definitely won't get through it.

But the most recent regulatory requirement imposed upon the district is our combined sewer overflow management and reduction program, which involves a management requirement of CSOs, the use of storage tunnels and various other infrastructure.

The district has spent over $220 million to date on CSO program—probably helps if my mike's on—which 11 percent was funded through Federal grants, with the balance paid for by the district's rate payers.

Our current program is anticipated to cost over $1 billion over the next 15 years. I give you these numbers to show you the amount of burden that's placed on the wastewater ratepayers. The ratepayer's burden has increased from about 37 percent to over 90 percent of the current situation. There's no question that without additional funding and loans and grants, we will not be able to meet these requirements.

The SSO program, for example, that the regs have been talking about, EPA has estimated over 80 billion, and we think that number is probably low.

On that basis, we strongly endorse and support and work actively for the Water Infrastructure Network (WIN) program and the Water Infrastructure Caucus to bring about a balance of funding between local, State and Federal funding.

Without that, we do not think that the progress that we have made will be sustained or that we will meet these new objectives.

In addition, we think that there needs to be a more efficient way to integrate and balance the various aspects that we have to face in terms of the separate CSOs, SSOs, stormwater management and TMDL programs.

Currently, communities must face these as individual sets of regulations with individual and sometimes divergent program requirements, requiring deficiencies and not leading us to a uniform objectivity. As a result, as a member of the Association of Metropolitan Sewage Agencies, and others, have worked to try to develop some unified Federal legislation that would allow us to deal with all, particularly wet weather, water quality problems on a watershed basis.

In addition, the water quality standards that are fashioned for urban streams must be scientifically defensible. We certainly support and highly endorse the Ohio EPA's approach to biological standards. We believe that proof of streams quality is in the biology, not in the chemistry. We think that we would continue to like the opportunity to work with the committee.

We've got a lot of information in our written testimony and some information on the WIN program. Thank you.

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

Mr. Stevenson.

STATEMENT OF ROBERT STEVENSON, COMMISSIONER, DEPARTMENT OF PUBLIC UTILITIES, TOLEDO, OH

Mr. STEVENSON. Thank you. My name's Robert Stevenson. I have about 25 years in the water and wastewater treatment field. Mayor Finkbeiner could not be here. He is at a function for the $1.2 billion Jeep plant. Publicly, on behalf of the city of Toledo, we'd again like to thank Senator Voinovich for his help in that project.

The city of Toledo is currently involved in discussions to settle a lawsuit that was brought by the U.S. EPA on October 29, 1991. The claim was that the city of Toledo was not meeting its NPDES permit. The plant had undergone massive rebuilding efforts, with Federal assistance, and had not been in full compliance.

Over the 10 years of the lawsuit, the final effluent has come into compliance and its discharge is no longer an issue. The issue of bypassing them became evident. The issue of bypassing was submitted to Judge James Carr. He had ruled that the bypasses were illegal if feasible alternatives are available. This term is contained in the Clean Water Act, and he defined feasible alternatives to include building new treatment units. He stopped short of defining what the measures would be needed to be undertaken. He did, however, indicate that maximizing their existing treatment plant was not sufficient when it comes to feasible alternatives and bypassing. It has huge ramifications for wastewater treatment in general.

The U.S. EPA has insisted that we build an equalization basin that would hold a sufficient quantity of wastewater such that we can avoid bypassing. This amounts to a $60 million basin.

In previous discussions, we had conceived and designed an alternative wet weather system that would treat higher flows and return them to the Maumee River without the need for storage.

We fully intended to ensure that the discharge would meet water quality standards such that no harmful effects would be produced. This alternative could have saved us $40 million. The U.S. EPA insisted that this was a good idea, that we should downsize it slightly and combine it with the 60 million gallon equalization basin. Our remedy of 30 to 35 million ended up costing $80 million.

The disappointing part of this is that there was little water quality benefit to the Maumee River. The reason we did not agree on the Actiflow system alone is that it wasn't getting full secondary treatment, and technically it was a bypass.

They would be willing to allow us to build such a system as long as we build an equalization basin, too.

The previous discussion is only a portion of our lawsuit issues, but it serves to highlight the problems with completing wastewater infrastructure projects. The first topic that needs to be addressed is regulatory oversight.

The U.S. EPA has placed more emphasis on enforcement rather than water quality results. Meeting technical definitions contained within rules and regulations is more important than water quality standards. There seems to be an imbalance there.

The second area of regulatory oversight is cost-effectiveness and scientifically-based reasoning.

In discussion, everyone champions the idea of applying good scientific evidence, sound engineering principles, and cost-effective solutions. However, in practice, these issues are not given the weight or consideration which is appropriate.

The recently adopted CSO policy has a better approach. The policy talks about comprehensive and coordinated planned efforts by municipalities, regulatory agencies and the public.

It allows for site-specific solutions and the need for flexibility to tailor controls to arrive at the best solutions.

The U.S. EPA needs to fully embrace this approach to enhance technical assistance and reduce regulatory enforcement.

In Toledo's case, our proposed consent decree will cost the ratepayers over $400 million. The city is prepared to spend this money, we just don't want it to balloon to $600 million or $700 million.

To give you an idea of the impact on the city of Toledo, consider the following: Our current overall debt for the entire city of Toledo over the last 100 years is $423 million. With the wastewater projects proposed, this will double our debt for the entire city of Toledo.

The need for water and wastewater capital infrastructure improvements industry-wide amounts to $46 billion per year. That equals $230 billion over a 5-year period. Clearly, there is a need for funds.

If I were to summarize some of the actions I would like to see Congress encourage, No. 1, regulations that are based on scientific and engineering principles; No. 2, regulations that are based on water quality objectives; No. 3, regulatory actions that place an emphasis on cooperation rather than enforcement; No. 4, Federal funding for the long-term and in sufficient quantities to meet the

needs of the industry; No. 5, clarification of language of the Clean Water Act to provide flexibility of meeting demands of wet weather systems; No. 6, provide research and support for new initiatives; No. 7, provide Federal funding, because the need is so large; No. 8, continue to educate the public; No. 9, allow communities to be a partner, not simply those who execute the plan; and, finally, begin to look at non-point source discharges as opposed to point source discharge. Thank you.

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

Mr. Karney.

STATEMENT OF PATRICK KARNEY, DIRECTOR, METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI

Mr. KARNEY. Good morning. I'm the director of the Metropolitan Sewer District of Greater Cincinnati. Recently, I testified before the House on behalf of the Association of Metropolitan Sewages, whose members provide water services in more than 50 metropolitan areas around the country on the subject of financial crises those utilities are facing.

Thank you for the opportunity to speak today on the issue of water infrastructure needs. Recently, more than a million consumers in California were plunged into darkness. Imagine what would happen if the Nation's water and wastewater systems began to fail.

Failure of the wastewater system could create a public health concern, cause widespread degradation, and lead to an erosion of the public trust and clean and safe water as unwavering.

Everyday, Americans rely on clean water for recreational, commercial fishing and industrial activity. These activities generate billions of dollars every year, none of which would be possible without clean water.

Would we have built roads, bridges, and airports in communities that would not provide clean and safe water? No. Inadequate capacity to treat wastewater can cripple a local economy, drive out manufacturing, and wipe out tourism.

The gains we've made over the last 30 years are now at risk. According to the EPA, without significant new development, we can lose the progress by 2016.

Today we ask the Senate, once again, to make water infrastructure funding a financial priority. We face an estimated gap of $3 billion a year between current investments in infrastructure and what we need over the next 20 years to replace aging and failing pipes, and Safe Drinking Water Act mandates.

This unprecedented level in investment would be needed at a time when our community budgets are escalating by 6 percent a year above inflation. Federal contributions should decline by 75 percent since 1980, and represent less than 5 percent of today's water and wastewater outlets.

Let's put it in perspective. In Cincinnati, we need to invest between $1 and $3 billion to address a combined overflow and sanitary sewer overflow profits. This is over and above operation and maintenance of our system and routine rehabilitation of aging systems that we have to operate.

This number's staggering. Our user charges are mid-range compared to those of 67 surrounding utilities. If the problem can be solved on the low end, we'll be forced to increase our user charges by 7 percent per year each of the next 15 years. This would multiply our existing rates by merely threefold, or 76 percent.

If we end up closer to the $3 billion figure, we face rate increases of 1 percent per year for 15 years. This would multiply our current rate 17 times.

MSD does not receive government subsidies or local tax contributions for normal operations. These increases will fall solely on the shoulders of our ratepayers, ordinary families who pay the true cost of wastewater collection and treatment in their quarterly bills, and have been doing so since 1968. These are the same families whose sewer rates went up over 9 percent in 2000, another 7 percent this year, and probably 7 percent next year.

Cincinnati is just one of tens of thousands of cities and counties facing a financial crisis due to aging infrastructure and the challenge of eliminating CSOs and SSOs. Plus with the expectations of greater demands from new regulations, local rate payers could not address these tremendous needs alone.

We can close this water infrastructure finding only if the Federal Government and States meet our cities and counties halfway by authorizing an average of $11½ billion a year in capitalization funds to the States over the next 5 years.

The Water Infrastructure Now report released last month, and endorsed by over 30 national organizations, provides recommendations to the Congress and the President on how to address these issues.

In an era of unprecedented surpluses, I can't think of a better investment than the health of our citizens, the integrity of our environment, and the well-being of our communities.

Simply put, we can't afford to leave any community behind as we address the national water and wastewater infrastructure crisis.

On behalf of America's wastewater utilities, I'd like to thank you for your recent initiative, to re-energize the State's resolving funds program. Such leadership is what is needed to bring us all to grips with funding crises facing our water infrastructure threatening our citizens.

Mr. Chairman, we look forward to working with you and the rest of the committee to find solutions to this national crisis. Water and wastewater treatment would be truly devastating to the health and well-being of our citizens and the national economy.

Thank you.

Senator CRAPO. Thank you, Mr. Karney.

Mr. Gsellman.

STATEMENT OF PATRICK GSELLMAN, MANAGER, ENVIRONMENTAL DIVISION, AKRON ENGINEERING BUREAU, AKRON, OH

Mr. GSELLMAN. Thank you. On behalf of Mayor Plusquellic, I'd like to give you an update of where we are in the city of Akron. The city of Akron is located on the Cuyahoga River in northeast Ohio, approximately 30 miles upstream from the city of Cleveland. The Akron wastewater planning area covers approximately 167

square miles and includes most of the Akron metropolitan area. There's a population of 352,000 in the service area, including all or a portion of five cities, four villages, and seven townships.

The sewer system includes approximately 1,165 miles of sewers, consisting of 188 miles of combined sewers. There are 38 combined sewer overflows within the city of Akron. Based on predictions from the hydraulic model typical annual CSO volume is 2,400 million gallons.

Previous efforts by the city of Akron have resulted in the elimination of sanitary sewer overflows in the city of Akron, and the award of the Association of Metropolitan Sewage Agencies gold award for no effluent violations in year 2000.

The city of Akron proposed a long-term control plan that will cost more than $248 million to implement. This cost is in addition to the millions Akron's already spent to date to study CSOs and the $25 million spent to eliminate sanitary sewer overflows.

Akron has seen a significant decline in its industrial base since the 1960's, requiring the residential users to carry the burden. Akron already carries one of the highest residential sewer rates in the State for cities with similar population.

The Akron Public Utilities Bureau is currently undergoing significant changes as a result of high water rates. This led to a Blue Ribbon Panel to study the utility and the current Competitive Action Program. This program includes the water treatment facility, sewer maintenance, water pollution control station and utilities engineering.

Significant reductions in operation costs were being realized and will allow the utility to be competitive in the future. This will allow the city to pay its fair share of needed improvements as long as the Federal Government contributes its fair share.

As part of developing the Akron long-term control plan, several options to fund the projects were evaluated. Given the significant total costs of these projects, it is likely that the funds will be obtained from multiple sources, grants, loans and revenues obtained by the sewer rates.

Grants are essential to the fundability and feasibility of the program. Without outside funding, sewer rates will more than double just to handle the CSO program. The impact of additional operation and maintenance costs, system repair and replacement and normal inflation will likely see the rates triple.

Current monthly sewer charges for a typical residential customer are approximately $30 per month, for sewer only. The rate increases to $60 or $90 per month will adversely affect a significant portion of the ratepayers, including those who can barely pay or afford their current utility bills.

The selected alternatives for the city of Akron's integrated plan, the long-term CSO plan, incorporates storage conveyance tunnels, detention basins, treatment basins and sewer separations.

A set of rating criteria was used to compare the various alternatives. The criteria included stormwater impacts, water quality improvements, operation and maintenance costs, public acceptance, community improvements, and construction issues.

The approach taken for the long-term control plan was the presumptive approach, and the annual percent capture after the plan

is 94 percent. In addition to the funding, the issues of wet-weather-water-quality standards, use designation and urban stream habitat need to be addressed.

The city of Akron Public Utilities is also faced with rapidly rising costs associated with stormwater, that's the municipal stormwater, total maximum daily loads, and drinking water regulation.

Akron continues to develop access to receiving streams with bike paths, downtown development, a Mustill Store restoration, and Cascade Lock Park. Also, the National Heritage River designation and National Park will continue to attract people to the Cuyahoga River.

We look forward to a solution that will cost-effectively address CSO issues while producing benefits to the Akron ratepayers, enhance the parks and trails, show improvements in water quality, and further the goals of the Clean Water Act.

Proposals similar to the Water Infrastructure Network (WIN) are needed to provide for adequate funding now and in the future. Through water and sewer bills, local ratepayers already pay 90 percent of the total cost to build, operate, and maintain their water and wastewater systems.

We need a long-term, sustainable, and reliable source of Federal funding for clean water. Thank you.

Senator CRAPO. Thank you very much.

Mr. Gsellman—Senator Voinovich.

Senator VOINOVICH. I'd like each of the witnesses to, if you can do it, give me an idea of your current costs, on the average, household. I know it varies from how much water you use, and so forth. Give the projected cost you're going to have in, say, the next 5 years.

Mr. ODEAL. I guess in terms of the Regional Sewer District of Cleveland is essentially a wholesaler, so we—our charge covers the capital cost, the conveyance on the treatment, and the average consumer is probably paying about $300 a year to us now. The local communities—some add a charge, some do it through general taxation. Then, frankly, some just haven't had the dollars to do much. We are just finishing——

Senator VOINOVICH. You say some——

Mr. ODEAL. Just don't have the dollars to do much at all with the sewer.

Senator VOINOVICH. Ratepayers, so many of them pay $300, some of the cities subsidize them?

Mr. ODEAL. No, they add an additional charge. Some of the communities have charges, some do it through general taxation, and, frankly, some just don't do too much because, particularly the suburbs that have severe economic problems haven't been able to invest very much in their infrastructure, and they have the most serious problems.

In terms of our projections, we're just finishing our CSO long-term control plan, we're working on our rate study, but I think it's safe to say, in the absence of Federal funding, we would be looking at—if we're going to do $1 billion worth of programming over 15 years, we'd look at a tripling of costs, ultimately, if there were no Federal funds.

If it was all local dollars, based on the rates now in effect, we've got probably a third of that federally funded. If we get nothing federally funded, with increased operating costs, I think it's likely to see a doubling or tripling of rates.

Senator VOINOVICH. You're talking 15 years, you're talking about the average cost where communities are not putting something—are the communities responsible—I should know this. Are the communities responsible for their infrastructure in their respective——

Mr. ODEAL. That's correct, Senator. The communities have infrastructure responsibility for their individual sewer systems, as well as they will be responsible for their stormwater programs under the Phase Two.

Stormwater Program, and they will also be responsible for meeting the SSO regulations.

The sewer district is responsible for the combines of sewer overflows, but the separate overflows exist almost exclusively on the suburban sewer systems, and they will be forced to having meet any costs associated with the separate overflow program.

Senator VOINOVICH. So over 15 years, that $300 a year could go up to $900?

Mr. ODEAL. That's correct. But that would not include any money at all for the 53 communities that do something with their sewers, particularly the ones that have to deal with the SSO problem. That would be in addition.

They will have to come up with those dollars to deal with that SSO program, as well as all the additional regulatory requirements of developing the programs and getting permits from Ohio EPA, as well as getting stormwater permits of OEPA, and all those requirements.

Senator VOINOVICH. So it could be, say, $300, maybe $1,200?

Mr. ODEAL. Oh, I'm sure that the way the SSO regs—which hopefully it will never see the light of day—were drafted, conceivably many of the communities would be forced with almost having to replace their sewer systems under the premise that thou shalt never have any overflow from any sewer system, no matter how old it is. It is just not achievable, particularly in communities that have sewers that are 60, 70, 80 years old. They do leak, they do get stormwater in them.

Many of our communities, I'm sure, would face many of the horror stories that you heard on your first panel. There's really no difference. The only difference is that these communities don't have a wastewater plant. They still have sewers, they get holes, and they leak. Many of them are—as you know, some of the primary suburbs are faced with some severe economic hardships, and many of their ratepayers and taxpayers are well below the poverty level.

So for many of the people in our communities, they would have a major impact for the inner city residents and the suburban residents.

Senator VOINOVICH. How about Toledo?

Mr. STEVENSON. In Toledo, the average cost for water and sewer per year is about $300 to $400. With just the items that are in the proposed consent decree that we're talking about, specifically for wet weather treatment, those bills could escalate to $600 to $900

per year, and that doesn't include some of the provisions that he was talking about on SSO's. So it could double or triple our bills.

Mr. KARNEY. I need to answer one question earlier that I didn't speak to. I've been in the business 5 years. I'm not quite that young, though, because I have half a decade in industry before I started with that. But it's nice to be speaking on a panel with Erwin because of the comparison that I look really young. So I kind of like that.

Cincinnati, right now, our residents are paying $300 a year. I gave you a range earlier of $2 billion to $3 billion. That's not just a fuzzy number, we've actually had consultants go back to help us do that estimation. That range is based upon how conservative or how completely wacky the interpretation, especially the SSO rule, could become.

When we look at how we would do it in good science and good financial risk base, doing the best for the environment, we're at about $1 billion. We think, now, wait a minute, if we get to this, as Erwin pointed out, no discharges from the sanitary system ever, where do you go? Well, then we have to up the ante, and it gets us to a $3 billion number. We've evaluated over 4,300 projects to get that estimate.

So what that ends up doing is it takes us from the current $300 to within 15 years of either being at $1,000 or $5,000 per home per year.

Senator VOINOVICH. One thousand dollars, five thousand dollars—it's a big number. This is a 15-year period?

Mr. KARNEY. Yes, we'll easily get to the $900 figure. If we are really pressed hard, as some of the folks at U.S. EPA want to do now, we'd be at $5,000 a year in 15 years, to be able to finance the kinds of moneys we have to put in the system.

We've got parts of our system that go back to early 1800's. Folks say, why don't you keep that up to where it should be? Well, things that were done in the 1800's, things that were done in the early part of the 20th Century or the mid- or even late parts of the 20th Century had no concept of what kind of regulations we'd be looking at today.

Senator VOINOVICH. I think you've already said that your rates have gone up, on the average, about 7 percent per year?

Mr. KARNEY. Yes, since I got to town, we did 9 percent the first year, 7 percent this year, and we're looking at 7 percent for next year. That's without even addressing these really big issues that are still standing out in front of us.

Senator VOINOVICH. How about Akron?

Mr. GSELLMAN. In Akron, we're looking at a little less than $30 a month, and that's for sewer only. That would be $360 a year just for sewer. The water's another $20 a month. We're looking at the sewer bill itself being doubled, just implementing the capital portion of the CSO.

Senator VOINOVICH. What period of time?

Mr. GSELLMAN. Well, right now we're still negotiating with Ohio EPA and the long-term control plan what the schedule's going to look at, but generally talking about 10 years for the rates to double.

Senator VOINOVICH. So over 10 years, they would go up 100 and some?

Mr. GSELLMAN. Right. By the time we look at inflation and those items, probably three times.

Senator VOINOVICH. OK.

Senator CRAPO. I have a general question I'd just like to throw out to the panel, and any of you who would like to can pitch in on it.

You're all aware, as I am, of the reports of what the infrastructure needs are. In fact, the hearing we held in March tried to just get a handle on what everybody thought the infrastructure needs in the industry were.

As you may be aware, those estimates are ranging from $300 billion to $1 trillion. It just depends on—and we're talking, I think, both the Clean Water Act and the Safe Drinking Water Act.

It seems to me that obviously it's difficult to get a handle on what the infrastructure needs are going to be. That's why you see such a wide range of needs. But part of the reason is to get such a handle on it, because as this panel just indicated what it is that they're going to see the cost being, it's hard to tell, because we don't know how rigid the commanding control system that we have is going to be.

The question I'm getting at is this: As we look at trying to get a handle on how to meet those infrastructure needs, it seems to me that one of the things we have to do is better identify what we are going to be requiring.

If you and those who are trying to estimate our infrastructure needs better knew what would be required, we could get a better handle on what our needs would be.

Would everybody agree with that?

(No verbal responses.)

Senator CRAPO. From what I'm hearing in the testimony here today—and, frankly, this is not different from what we're hearing from many other parts of the country—those infrastructure needs estimates that we are seeing are exceedingly high because we are expecting that we are going to have to meet some standards, such as zero overflow under any conditions.

Yet I'm also hearing that a different standard, which would allow some flexibility, would not reduce water quality in the country, but could significantly reduce costs of infrastructure; is that correct? Anybody want to——

Mr. KARNEY. Absolutely. Absolutely.

Senator CRAPO. So in terms of how we meet this need—and I want to get to this in a minute with regard to the—what the Federal role should be in terms of funding—one of the things we need to look at is simply what might be called efficiencies or effectiveness in terms of cost-benefit analysis, and so forth.

I know this is going to be a really tough question for you to answer, but I'd like to see if anybody in the panel has an opinion on it. If we were to have the kind of flexibility that we've talked about in the hearing today, where the Ohio EPA would be able to—in its issuance of NPDES, or whatever other regulatory action it would take—would be able to work flexibly with the communities and achieve the water quality standards that we set in flexible ways,

do you have any kind of a feel for what kind of reduction in the overall infrastructure needs, that we would be looking at, would be achievable?

Mr. STEVENSON. In Toledo's case, the costs of our consent decree that we're talking about for wet weather treatment is about $450 million. We've submitted this to three national engineering firms and asked them to give us a cost with the flexibility that you're talking about. Each of those three national engineering firms think they can cut $100 million off of that $450 million capital cost.

Senator CRAPO. So that would be a little more than 20 percent reduction in your specific case?

Mr. STEVENSON. Our specific case, yes.

Senator CRAPO. There would be no negative impact on water quality?

Mr. KARNEY. And still meet water quality standards at the end of the discharge, yes.

Senator CRAPO. Anybody else on the panel have any input or opinion on that? You don't have to be specific, even if you just have a general opinion.

Mr. Karney.

Mr. KARNEY. Yes. My general opinion, having worked with Chris Jones's folks, both in Columbus and in the district office, is that they have a better sense of practical benefits to be gained by different changes. As he noted, many times they are strictly against the wall. They can't do things. They can't exercise the judgment.

I would say that that would get us down to close to that $1 billion number. He might be a little tougher on me than I'd want to be on myself, so edge it up to $1½ billion, rather than $3 billion. So we could cut $1½ billion off of just one city's price tag.

Senator CRAPO. In terms of percentage, you're talking about maybe a 50-percent reduction?

Mr. KARNEY. That would be 50 percent of that gigantic increase that we're looking at, sir.

Senator CRAPO. Mr. Odeal or Mr. Gsellman, do you have an opinion on this?

Mr. ODEAL. I guess I would just have the general opinion that—I think one of the real concerns I have is sometimes there's a level of expectation that's put out there, the public's going to get something for this investment, and this is probably my biggest concern.

As Senator Voinovich knows, we've made spectacular progress in Cleveland, the lake front, the Cuyahoga River, we're trying to focus on some of the small streams in people's backyards and—which directly impact it.

But I think if we were able to look at SSO and CSO and stormwater on an integrated approach, looking at the stream biology, looking in urban streams, the stream variation flow, high flow, low flows destroys habitat. I'm a converted engineer to biologist, but I'm really listening to the biology, and that's what we're talking about.

I think that kind of approach not only will save us significant dollars, but actually will put the public expectation at a level that can be achieved. I mean, the biggest danger here, frankly, in an urban stream in wet weather, is high flows and drowning. People

shouldn't be in the streams anyway during high flows, therefore, there's no use that's impacted.

During high flow periods, we'll waive the bacteria standard or have a different standard if it quickly stabilizes back will have no impact on use, no impact on fish, and could save us considerable dollars.

I think those are the kinds of things we need to look at, reasonable approaches, and I think that, frankly, given the flexibility, those are the kind of things we could sit down with Director Jones's staff and work through on a watershed by watershed basis as opposed to one-size-fits-all for anything.

Senator CRAPO. Thank you.

Mr. Gsellman, do you have anything?

Mr. GSELLMAN. I'd like to add one thing that Mr. Odeal pointed out. The expectation, after the day's over, we're going to spend $248 million, the stream's still not going to meet its uses during certain wet weather events, and we need to make sure the public's aware of what the benefit is from doing this program; if the stream is still not going to meet its water quality in certain situations because of other impacts on the stream, as far as non-point septic systems, other localities' SSOs, those kind of things; and also to make sure the standard that we're trying to obtain is the reasonable goal of the—especially in the urban streams. An urban stream is different from another, you know, wooded area, agricultural area, and I really think Ohio EPA needs to not only have the funds but have the time so they can fully develop an urban stream category, so we can truly have a realistic goal that can be met.

Senator CRAPO. I appreciate the input that you've given, both in terms of general comments, as well as the specifics.

In fact, we have two cities here, Toledo and Cincinnati, who could achieve 0 percent to 50 percent savings if they had flexibility, and still not impact water quality.

I think that the comments that Mr. Odeal and Mr. Gsellman made about the perception of the public in terms of this investment in our infrastructure are critical.

I think if the public understood that the numbers of dollars that we are talking about don't necessarily translate into a comparable improvement or, in some cases, any improvement in the water quality, that there would be an outrage, that we are expecting them to see these kinds of doublings and triplings, and maybe even, you know, much more—much higher increases in their resources.

A couple of years ago, there was a study done that got some national attention that indicated that when you're talking about people's health and their environmental satisfaction, and so forth, that the most significant factor on the quality of life, in terms of people's health and safety, was their own economic circumstance.

When we're talking about reducing a family's economic ability in these kinds of ways, in terms of the percentage of their family budgets, or if it's something where the city or the county or the State steps in and pays for it instead, to save the family, you're talking about taking those resources away from the city, the county and the State, which they could use on health and safety concerns

or environmental concerns. We're talking very significant issues for what are potentially zero benefits.

It seems to me that one of the things that we need to do is to make sure that we have the most bang for the buck, in terms of the infrastructure that we address here.

The second thing, which I'll finish on, is after all that's done, it's very clear that we're still going to have a giant need for infrastructure. There's a tremendous amount of need out there, and there will be a responsibility at the Federal level to figure out how to deal with this.

One of the debates that—well, not one of the debates, the debate that we are now in is, should we meet that through the current approach, which is a system of revolving loans, or should we transfer into some kind of a mixture with a system of grants?

It has seemed to me to be quite evident that with regard to the small communities where they can't achieve the economies of scale that especially aren't able to get some of this regulatory flexibility, that there will have to be a grant program in place, because the small communities simply can't handle it.

I would appreciate any input that any of you would like to give us in that context. Does that also apply to the larger cities?

Should we move to a grant program or some mixture of grants with regard to smaller and larger communities, or can we handle it through simply beefing up the revolving loan program?

What are your thoughts on this issue? I guess maybe we can just start on the left, and if you don't have a comment, just pass it on.

Mr. Odeal.

Mr. ODEAL. I can't imagine anybody who wouldn't be in trouble if they didn't have a comment on that.

I think as we've indicated in our comments, we certainly support a balance of grants and loans. I think the loan program has been exceptional. I think the real—one of the real values to the loan program is a reduction in red tape. Being trained as an engineer, I don't enjoy dealing with investment bankers, and all that is taken away. You can focus really on building facilities, and some of this other stuff. A lot of time saving, a lot of administrative saving.

But they are also really seen in the larger communities—I think if you look at the problem with the larger communities, the average income is wonderful, but the divergence of the income is—not only in Cleveland, but our primary suburbs, and even in more affluent communities, you have people that are well below the poverty line and, therefore, what might be a tolerable rate to some folks is just going to break their back.

Plus, I think, second, there's a question of equity. Many of these requirements are—they're going to be well beyond what locals we can justify, what I feel I can, as a good professional, justify.

If that is the national objective and the Federal Government wants us to achieve that, then I believe the Federal Government should finance that differential between what the local community wants and can accept—and I don't mean environmental degradation—but what is achievable and acceptable versus this higher level.

I think that increment definitely should be financed by the government level that's asking for that higher level.

Senator CRAPO. Good point.

Mr. Stevenson.

Mr. STEVENSON. In looking at engineering programs over a 15-year period there invariably are years that have peaks and then there are valleys. It would be extremely helpful for Federal assistance during those peak times so that we could average out rate increases to our citizens.

In our program, we estimate about a 5 to 6 percent rate increase for the next 15 years. But there are a couple years where you get into a 10, 15 percent increase because of the nature of the construction programs.

So it would be extremely helpful in those times to have Federal assistance to level out that increase.

Senator CRAPO. Mr. Karney.

Mr. KARNEY. I'd just like to start by saying that a comment had been made earlier, it's too bad we can't get these folks to come to Washington, DC, this is so critical to our utilities. I know I, for one—I'm sure several others—would be more than happy to make that trip. If you can give us a little more than a week's notice, that's good, too. But we need to come up and provide that kind of input.

When I was doing the House testimony, I'd heard that there were folks that were walking in and lobbying various representatives saying the local utilities aren't paying their fair share, you know, they're not—the citizens aren't doing this, they can certainly do more, and these were all incredible amounts of misinformation.

So I'd be more than happy to come up and provide that local testimony if it's necessary or can be of use to the system.

Yes, we do need grants. There needs to be a mixture of grants and loans for the large as well as the small. The large utilities have even bigger needs in some cases than the small utilities do.

As Erwin mentioned, there has been an incredible diversity of economic levels, and there are a number of places, especially within the city of Cincinnati, that if you ask folks to up another $500 a year or $1,000 a year, they couldn't do it. I don't know what they'd do for water supplies or wastewater treatment, but they just couldn't do it.

In the WIN proposal, not only is that asking for money, but it's also giving some direction and suggestions on Federal ways to administer funds so that we cut out a lot of red tape that was in the old grants program and make it easier for States to be able to work with some of that money to go right back to States.

Chris would be happy with that. Of course, it speaks to providing funds to assist the States in running their environment programs.

Senator CRAPO. Your comments, and all the witnesses' comments about the need to streamline the financing part of this, the economic management, have been heard.

Mr. Gsellman.

Mr. GSELLMAN. Yes, in the Akron situation, specifically a sustainable grant program is essential. We're kind of unique. We're not as caught up as the large cities that have the significant industrial base. We lost the significant portion of our industrial base, and basically the sewer and water utilities fall onto the residential

customer to support. Due to that, they're the ones that have to bear these improvements.

Also, I think it's important to have a sustainable grant program instead of just one big, you know, pile of money coming in for a short period of time.

We need something similar to the highway funds where we have some sort of reliable source of revenue that goes into the funding program and continue on to take out a lot of the peaks and valleys, as far as funding, so that we can plan—we're into doing programs that are going to be 0-, 30-year programs. We need to know where that funding source is going to be over that 0, 30 years.

Senator CRAPO. Thank you.

Senator Voinovich, do you have any more questions?

Senator VOINOVICH. Yes, I do. The issue of this cost projection that—Senator Crapo made a good point, and that is how you base your projections, has a lot to do with what the agencies can be required to do. I was thinking about that with this GAO report that I've asked for that should be out here pretty soon.

But one of the things that we've got to know is—we're asking them, also, whether or not the agencies are really doing a realistic job in projecting their costs.

For example, 1996, the EPA said the Clean Water Needs Survey was $140 billion—no, $200 billion. Then $140 billion in 1996, and then they said it was in 1999, $200 billion. Some other groups have said it's $300 billion over 20 years.

So, in other words, it's all over—how in the world can you really plan for it if you don't some realistic idea how much that's going to cost? So I think that's key.

The other thing is that I've learned from my vast experience that people really aren't—they don't confront regulatory agencies until they feel it in their pocket.

I think one of the things that your respective organizations should be doing is a lot more effort in talking about what the problem is and what the projected costs are going to be and how that's going to be reflected in the pocketbook of the people in your respective communities.

It's only then that there is going to be any kind of effort, I think, in terms of looking at some of these regulations in a more realistic fashion.

Just think about this. We're talking about still in Congress of having a massive school construction program, which is a fundamentally State and local responsibility, but no one wants to put on the table the issue of what are we going to do with clean water in this country or what are we going to do with sewage treatment, and replacing the infrastructure and so on.

So a lot of the job here is going to be to elevate this issue into a priority issue.

Frankly, in terms of the agency—we're talking about the Environmental Protection Agency. It cuts across just about every area you can think of. Because there's no consideration ever usually given to the cost.

As Senator Crapo said, the quality of life of individuals has a lot to do with how much money they have available to them for their families. If you can't show some measurable, real improvement in

the environment and public water supply, how do you justify these enormous costs increases?

What I'd like to know is what do you think, in terms of the overall cost increases that you're seeing—could you rate the number of—No. 1 projected cost increase—we know you've got—all of you have got your projected infrastructure costs, depending on how old your community is, you've got your problem. But let's talk about in addition to that, OK, that's the given—the added cost. The added cost. What, where is it, what's going to generate the largest amount of money that you're going to have to spend? What issue is that?

Mr. ODEAL. Well, actually, just sitting here, Senator, I think one of the issues that you'll recall when you were Governor, and I think you worked hard to get a realistic approach, was the Great Lakes Initiative.

Director Jones's office now is struggling with implementing the approach to handling mercury, which is a natural substance that is occurring everywhere. Some of the unrealistic objectives are where we want to get in terms of totally eliminating mercury. That can drive the costs unbelievably.

If we, in fact—if the goal—one of the difficulties we face is that these things are zero, we can measure zero better all the time. So we're out in the parts per billion—we're getting out there so far, literally as ridiculous as it is, we do clean sampling and analyze for mercury in a clean room on wastewater, because the requirements are coming down for mercury. So depending how mercury is dealt with, it could be astronomical costs.

There's lots of other items that are coming down out of the Great Lakes Initiative that could be approached the same way.

One of the issues we haven't talked about here at all today, which is a big municipal issue, is what is more traditionally called sludge. This has been a lot of work to get realistic standards, real biosolids. If properly treated, it can become a real asset.

One of the difficulties that the government faces is the moving target. So if, in fact, we were to develop a product—a biosolids product, put it out in farmland, put it out in agriculture, meet all the current standards, something new appears 5 years from now and all of a sudden these things become retroactive. As many cities have discovered, where they happened to put some trash in a landfill where somebody else put some bad stuff, they end up being liable. There are some unknown perils out there.

The biosolids peril is of particular concern because there you could really get bothered, I think in the future, because of some new requirement. So I think some of the shadow toxic issues, as I call them—again, not that, you know, anybody wants to harm anybody, we're in the clean water business. Sometimes the four of us sitting here are called polluters by environmentalists.

Well, in reality, we're the good guys. We're the ones, and the folks back there are the good guys, and Director Jones. We cleanup the pollution. We're not the polluters, but I think those unknown perils that we haven't even talked about by some well-meaning people who really think we can get everything down to zero when—even in the natural occurring substances.

If, in fact, mercury is such a bad actor, why doesn't the Federal Government prohibit the use of thermometers? On the one hand,

we allow things to come out that another branch says are God awful, and I myself have thousands of dollars worth of mercury in my mouth, so maybe that's why I'm like I am, huh?

You got me on my soap box. I apologize.

Senator CRAPO. Mr. Stevenson.

Mr. STEVENSON. I would echo those sentiments. Biosolids are one of our largest line item on the budget, and Great Lakes Initiatives holds a great deal of uncertainty that could cost us money.

Another thing that I would like to add——

Senator VOINOVICH. As a really interesting aside here, I was the chairman of the Great Lakes Council when the initiative came through. By the way, this was a voluntary thing. A couple of our colleagues put it into law. EPA got a hold of it, and the initial rejections of the cost were astronomical, so what we did was go to work and had a study made to reduce it down to what we call a biocumulatives of the Great Lakes. Even now, we're down to what mercury and a couple of the other ones. Oh, PCBs and some of the other things that really broke the chain. But here we're talking about one of the aspects, and that's mercury. How far do you go with the issue of mercury?

Mr. STEVENSON. It's an interesting discussion. Being an old research chemist, years ago, when we used the tests for things, we sometimes say the research is being driven by analytical technicians and not any specific agenda or target.

We're able to test down that low, so that becomes the limit of what we're required to do.

Another thing that I would mention as an item on the horizon, wastewater plants have large costs of energy. In the city of Toledo, I'm a $3-million-year customer on electricity alone. So we watch very closely deregulation of electricity, costs of those kinds are an issue.

Senator VOINOVICH. They're going up?

Mr. STEVENSON. Yes.

Senator VOINOVICH. Because what we're doing is we're not burning coal, we're going to natural gas, and that's what's driving it up.

Mr. Karney.

Mr. KARNEY. In Cincinnati, I guess the SSO regulations are the biggest hit for us, could be $2 billion on that side. CSO is next on that line with $1½ billion. The whole nutrient issue, it seems like that gets pushed down from the north on us with GLI——

Senator VOINOVICH. Let me make sure I understand this, because I—SSO, storm sewer overflow——

Mr. KARNEY. SSO is sanitary sewage overflow. That's just that pipe that picks up what comes from homes and industries, not the rainwater from the streets or curbs.

Then combined sewers have both the sanitary flow in them plus stormwater.

Then obviously a stormwater system is only the pipe that's carrying the stormwater.

Senator VOINOVICH. So the SSO combines sewer overflow, the stuff that Mayor Reid is trying to work with in Mansfield?

Mr. KARNEY. Yes, two different issues there. SSO rules, and the costs associated with those, and then you've got the CSO issue, which is overflows from a combined source, which is—it's a more

dilute mixture. Obviously you've got the rainwater in there diluting what sanitary sewage is in that pipe.

So those are two different programs, two different sets of costs and obligations.

Senator VOINOVICH. Are they still forcing some of the communities to go to separate sewers?

Mr. KARNEY. We're doing that a lot of times in response to CSO regulations, the directives. You want to cut down on combined sewer overflows, and one of the ways to do it is to separate the storm flows, take them to a nearby stream, get them out of the pipe, so you can separate—we used to have one pipe serving both needs, now you have two sets of pipes, and folks are no longer constructing combined sewer systems.

Those were the heart and soul of northeast, midwest, the older cities, is put one pipe in to handle both. But we're being forced to actually put in a brand new set of pipes and collection systems under the ground to separate and get away from some of the CSO issues.

Senator VOINOVICH. But even if you separate them, aren't you required to treat the stormwater?

Mr. KARNEY. Not at this point. Although we're still looking at things like floatables. That's going to be the other shoe that drops out of Phase requirements that just came out, requirements having to keep track of where those storm flows are going.

Senator VOINOVICH. Now I'm starting to get it. You do not have the separate systems. That's when you have a combined sewer system. It takes your storm water and your sewer water; you treat all water sources. If a flood comes along or a heavy rain, then you have to bypass some of that into a facility until it subsides. You treat that and you put it out a little at a time.

Mr. KARNEY. You can use them that way, yes, sir.

Senator VOINOVICH. But if you have separate systems, then the stuff that flows out of the storm sewers goes into the untreated water, right?

Mr. KARNEY. That would be correct, yes. If you have separate systems it's going to go right into it, and we're going to start looking at floatables and making sure things are screened before they go out, all those interfering in the future, I believe.

Senator VOINOVICH. But it's the—and the one that's costing you the most money is—which one is it?

Mr. KARNEY. Right now, our biggest liability is in SSO. If we have to completely eliminate any discharges from the sanitary system, that's going to be the biggest one for us. Because we're going to have to construct whole new pipes to take things from the outer areas.

In the case of Cincinnati, it's like our core areas, combined sewers, but you go out beyond that, the newer construction that's been done over the last few decades is all separate sewer.

But those sanitary lines are going to come up and eventually end up in a pipe that's coming from a combined system and then it becomes a combined flow.

So that's the biggest price tag for us right now. But not to be overlooked, the nutrient issue, as I said, it's kind of partially coming down from Great Lakes. I don't have a lot of lake frontage in

Cincinnati, but I've got 30 miles of river frontage on the Ohio River. What's coming up from the Great Lakes is the other end of the nutrient issue in this toxic zone in the Gulf of Mexico.

So between those two, they're going to meet somewhere around Cincinnati, and I'm going to look at another half billion dollars worth of removal of nutrients. That's not in my price tag, that $1 billion to $3 billion. Doesn't include half a billion. TMDLs, who knows what that's going to cost? That's still a big question.

Senator VOINOVICH. So the thing about it is you really think that we need to review what's coming out of the EPA to see if it's realistic, and your organizations have put together stuff that will come back on enforcement and come back on some of these other issues that are being required to make some sense out of it, that the committee would have that information available to us; is that right?

Mr. KARNEY. I don't know, have we got anything——

Mr. ODEAL. AMSA has been developing stuff. I think what we—what we would really like to see, I think—and the idea was to have a look at all these issues and look at them as we talked about them here—offer some stability for 10 or 15 years so, you can fashion a program, you can put your rates in effect, and you can begin to build your infrastructure. But these things seem to be coming piecemeal. One here and one here. The financial studies says it's no big deal, but eventually it is a big deal because it all adds up.

Sometimes there are variants. For example, Pat Karney talked about one possibility is separating your combined sewers, but long range if you're going to be faced with stormwater treatment, it's probably not the thing to do. I'm of the belief that maybe we'd be better off to just continue building large capacity combined sewers, because the separate sewers leak so bad anyway, and we could provide a more logical approach.

That's why if you're allowed to do a consistent watershed approach instead of arbitrarily dictatorial rules, you could say for this particular watershed, this makes the most financial, most economic sense in approaching it.

But we need to get, as indicated, some stability in the regulatory environment, stability in funding, and some consistent approach, so that guys like us who put these programs together can fashion a program to sell it to the elected officer's, sell it to the populous, we can fund it, and have some stability here.

Senator VOINOVICH. Let me ask, is the—I should know this. Is the State implementation plan doesn't include this stuff, does it?

Mr. JONES. No.

Senator VOINOVICH. It doesn't deal with this? You know what might be a good idea would be to talk about regional watershed recommendations, and give these folks some time to put these things together and recommend how they could best get the job done, instead of just every single entity nailing them down for what they're required to do.

We want to get something done. We need some help from some of your organizations to come back with what are the most significant things we ought to be looking at now—a short, mid-term and then long-term plan. If there are some things on the horizon—I think the point that Erwin made is a good one. We're telling everybody they have to break them apart, and you're saying that maybe

we should build a bigger combined sewer that would treat the stormwater, also, along with the sanitary, correct?

Mr. ODEAL. I mean, that's an option. I'm not in favor, generally, of separating these sewers. I think in many of these areas what we have is really old, leaky separate sewers. They don't really function much different than combined sewers. If we were able to look at the combination of some relief sewers and capacity issues and a recognition of a periodic need for them to overflow, the water quality impacts, given the right design, are not going to be any worse than from a CSO, or even the straight stormwater, because their pure stormwater isn't that pure. It has bacterial problems, it carries pesticides, and other contaminents in it, too.

Mr. KARNEY. It's interesting, it's almost heresy, but to talk about building combined sewers, but every time I separate one, I have this nagging feeling in the back of my neck that I'm creating a liability that's going to be incredible down the road, if then I have to go back in 15 years or 10 years and build all kinds of new treatment facilities at every one of those places where I cut a new pipe out into the stream, that's going to be horrendous. But at this point, that's the kind of thing we do.

Senator VOINOVICH. Well, how are we doing on time? Do you have any questions?

Senator CRAPO. No.

Senator VOINOVICH. You're OK?

(Pause in proceedings.)

Senator VOINOVICH. This is another general question concerning five other possible enforcement mechanisms by the U.S. EPA. How does that affects your decisionmaking regarding infrastructure improvement and rate increases?

Mr. KARNEY. If we're looking at things that can be an additional financial burden placed on you, then that adds to a priority rating of what goes first. No matter whether it seems to do good things for the environment overall or not. You've got to be aware that.

Because if you look at $5 million, $10 million, or $50 million worth of fines, that's money that cannot go into the ground to repair real problems and solve environmental issues.

Senator VOINOVICH. Any other comments on that?

Mr. ODEAL. Yes, I guess I just—I don't look at, in most cases, fines being appropriate against public agencies. The theory of industry is that perhaps there was economic advantage, and the fine levels—I think most of those bad actors are gone, but in terms of municipalities, transferring money from local taxpayers to State or Federal, doesn't eliminate water pollution. So I just don't see the value of it.

I think virtually everybody that's in a capacity—I mean, we understand the Federal law, we want to follow the Federal law, we want to do what's right, but many times we get these nebulous situations, and it's almost like it must be bonus time at EPA, because all of a sudden the findings and orders roll out. I don't mean Ohio EPA, I mean the Federal Government.

Or we had some ridiculous cases where U.S. EPA brought enforcement actions against facilities in the Cleveland area. We've been playing around for years and had to pay a small fine of a few thousand dollars, so that somebody took these cases off his docket.

So I just had real difficulty with governments fining each other. I just don't think it's appropriate.

Mr. GSELLMAN. One of the successes I've seen, though, with fining municipalities, was in the industrial pretreatment program, because I think at that point, the municipalities needed a kick in the butt, and it provided that. I think with that, the pretreatment program became what it was, one of the most successful programs ever—that came down from EPA.

I think it was the fact that they were dealing with industry and with other entities outside the municipality. I really think that that's what gave the major impetus for that.

I really think if you want to seek progress, it's in the grant funding. It's with providing the money. I think the communities know where they're at as far as enforcement, but provide the money and that's where you'll see results.

Senator VOINOVICH. So the bottom line is that, that doesn't do very much good. Second of all, it's even more difficult when you're not getting any kind of grant money and it's basically—you have to take care of the situation?

Mr. GSELLMAN. Right. It's counterproductive, that lost money.

Senator VOINOVICH. Would you say that without a Federal partnership program, like the WIN program—I'm not sure whether it's 57, or what the number is—we're not going to really deal with this problem in this country?

Mr. KARNEY. That's an absolute. That's an absolute.

Senator VOINOVICH. I guess one last one. It's a technical one.

What's the difference between this bypassing and recombination? I don't get that. What—you bypass within the system and—what does that mean.

Mr. STEVENSON. In our particular situation, we had proposed the wet weather system that did not give it full secondary treatment, and then it would be recombined with the effluent from secondary treatment. That was what the EPA calls blending.

A bypass could be a primary bypass where you give primary treatment and it goes out to the receiving stream and is not recombined downsteam. So there's a technical difference between the two.

What we had technically proposed was a blending issue, where we would put them back together and meet all of our effluent criteria.

Senator VOINOVICH. What do you mean put them back together?

Mr. STEVENSON. Well, the secondary treatment would be one flow through the plant. We would have a second flow that would go through our swirl concentrators around secondary—to a second treatment, which is an actiflow treatment system. Then they would both converge together before they went out into the river. So you have two separate flow treatments.

Senator VOINOVICH. Why do you do that?

Mr. STEVENSON. Because the stormwater, when it rains, can be treated with this wet weather system effectively, and you treat as much as you can through the secondary treatment, up to the capacity in your plant. The excess capacity being caused by the storm goes through this stormwater treatment, and then you combine them to get your final effluent.

It's a way of treating the water without storing it and then treating it at a later time. So it's real time treatment.

Mr. ODEAL. I think the point is it achieves the required effluent level. I think one of the problems that we're going to face with SSO, is most of us use biological treatment, and the bugs need a certain amount of food, and if they get too much flowing into the plant, you've washed the bugs out and upset the whole treatment plant.

So the goal is what is the discharge we want to meet? That's the goal. Unfortunately, it starts flipping back to the bureaucrat minds, they start talking about secondary treatment and percent removals, and then it's a case of micromanaging.

In other words, ultimately I think no one should care how we get to the effluent, they care about the effluent. Whatever mystical process we might use to get there ought to be our only problem, and their only problem is the effluent. How we get there is our problem.

I think when you start micromanaging——

Senator VOINOVICH. So the main point is to look at what you're ultimately discharging into a stream?

Mr. ODEAL. Right.

Mr. STEVENSON. Exactly.

Senator VOINOVICH. What you do to get it there ought to be your business and no one else's. The only help that you ought to be able to get is how to you pay for it, if there's some technology that you might get from the EPA or the State EPA to do that the best way——

Mr. ODEAL. There are many ways we can do it like they're proposing. The EPA is telling them, for the same objective, it's costing them a heck of a lot more money.

Mr. STEVENSON. There was a $50 million difference between the two systems.

Mr. KARNEY. It's definitely an issue, as Senator Crapo said earlier, of micromanagement.

You've got a lot of folks from Washington, DC, who don't understand, who really know the system, have not worked in the system, have not run the systems, and yet they'll come out and pick up a few terms and all of a sudden, they want to see those things on a piece of paper, because then it's easier for them to determine whether or not something by the letter has shown up.

Not necessarily whether it's going to work or where the dollars are going to come from, or what the effect is, but whether or not it meets certain levels.

There's a little checklist that makes it much easier to say, "Oh, you didn't do it correctly". We didn't do it the way you think is correct, but it's working a hell of a lot better.

Senator VOINOVICH. Do we have the water system—maybe 6 months from now we'll have somebody from air and water——

Mr. KARNEY. There are some good folks up there. Mike Cook has been talking for a long time about urban stream standards and acknowledging the fact that urban streams are not going to go back to pristine environments, but unfortunately some of the voices of reason get pretty overwhelmed by other forces within the agency.

Senator VOINOVICH. Well, all I know is this, that Steelhead, which was, 30 years ago, reported as one of the most polluted creeks in the State of Ohio, and we're doing something right. It's getting better.

Senator CRAPO. Finished?

Senator VOINOVICH. Yes.

Senator CRAPO. Well, I would like to thank this panel, as well as the other panels, for coming today. We've reached the end of our time limit here, but I can tell you that both the written testimony, which I read last night in my hotel, and the verbal testimony that we've had today, is going to be very, very helpful to us as we proceed.

I would encourage you all to continue to keep us informed, and as well as members of the House of Representatives who will be working on this as well.

To try to help make certain that your points of view are heard and understood as we proceed. We will be moving ahead to try to put together a major forum to not only the regulatory arena but the financing arena, and to situations which we face in terms of providing the necessary resources to meet our infrastructure needs.

I believe it is becoming better understood what we are facing. I think in terms of the environment and the kind of challenges we face in the country, this is the biggest one that we face in the country.

I think it should start getting more attention, and as its public starts to realize the kind of difficulties that we face, that we've discussed here today, I think we'll start seeing a lot more public support for the kind of reforms that we've discussed.

So, again, I commend you all, and thank you for providing this information to us.

Unless there's anything further?

Senator VOINOVICH. Mr. Chairman, I'd like to thank you again. This is one of my best friends in the Senate. I could—you can tell from what he has to say, we think a lot alike on a lot of these issues, and I think we're really fortunate to have somebody as conscientious and bright and committed to heading up this committee.

Even though it's not my subcommittee, I know this, that I will do everything I can to help him get the job done. Do you want to know something? He will get the job done. Thank you.

Senator CRAPO. Well, thank you. I was just reminded that we should remind the witnesses today that we will keep the record open for 2 weeks, so if you want to supplement the record with any further information or responses to questions, you're very welcome to do so.

We may come up with some other questions we'll submit to you and ask you to answer them in writing, if you would. So we will keep the record open for 2 weeks.

Senator VOINOVICH. One last thing. I would really be interested in finding out what your respective national organizations would be willing to contribute to this committee in terms of input.

Senator CRAPO. That is very helpful and I would appreciate that being submitted as well.

Senator CRAPO. I want to return the compliments. This isn't just a mutual admiration thing. I've said to many of my friends that

Senator Voinovich is one of the brightest lights we've got in the Senate, and it was great of Ohio to send him there.

You can tell from the hearing today, and just the fact that he asks that we bring our subcommittee to Ohio, and his introduced legislation, and his not only interest in but understanding of the issues, is one of the reasons he's so helpful in the Senate.

I look forward to working with you, George, to make certain we get the right solution in this legislation.

With that, this hearing is adjourned.

[Whereupon, at 1:16 p.m., the subcommittee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF LYDIA J. REID, MAYOR, MANSFIELD, OH

Thank you for the opportunity to provide information relating to potential required expansion of our wastewater treatment plant. The city of Mansfield Wastewater Treatment Plant (WWTP) service area includes 55,000 people along with business and industry. Sewer service is provided by a separate sanitary system and the wastewater is treated in a 12 MGD WWTP before discharge to the Rocky Fork of the Mohican River. The collection system was originally a combined sewer system designed to carry both sanitary sewage and stormwater. In the mid–1980's it was converted to a separate sanitary system. This change from combined system to separate sanitary system brought the city under a more stringent regulatory regime.

U.S. EPA regulations are based on the assumption that flows in a separate sanitary system will not have a significant stormwater component and consequently there will be no sanitary sewer overflows (SSO) and no plant bypasses. The Mansfield system has no sanitary sewer overflows. At the WWTP, dry weather flow averages about 9 MGD. It is processed through primary treatment, secondary treatment and disinfection before discharge to the Rocky Fork. During wet weather, intermittent flows of up to 20 MGD are processed in this way. Above that level, some flows are diverted to the 5 million gallon equalization basin (EQ basin) for storage and later treatment. In extremely high flow situations, the EQ basin, which provides better than primary level treatment, overflows. EQ basin overflow combines with treated secondary effluent and the entire flow is disinfected. The total flow meets NPDES (National Pollutant Discharge Elimination System) permit limits for concentration. We believe that EQ basin effluent alone meets NPDES permit limits for concentration.

Our NPDES permit is about to be renewed by Ohio EPA. It appears that Ohio EPA is seeking requirements in the permit that would require a plant expansion even though we currently meet concentration limits at all flow levels. Given the high quality of our effluent and given the many competing demands for our municipal resources, we do not believe that we should be required to provide any additional treatment unless it is necessary. Our sewer rates average over $300 per year per hookup. This is a level that U.S. EPA recognizes as sufficient to properly maintain a system. At this point we are not certain what our renewed permit will require. A number of factors will influence our permit renewal and the cost of implementation to our ratepayers.

Currently U.S. EPA is working on two main issues that could affect our permit. The first is the draft sanitary sewer overflow regulation that was signed by former Administrator Browner in the last days of the Clinton administration but not yet published in the *Federal Register*. It is being re-examined by the Bush administration before publication for comment.

Among other issues, the preamble to the draft sanitary sewer overflow regulation requested comment on the level of treatment required for flows reaching the WWTP. We intend to comment on this rulemaking when it is published in the *Federal Register*. We believe that meeting NPDES permit limits should be sufficient to comply with the law. We should not be required to provide treatment for the sake of treatment.

The second important issue relates to the development of the U.S. EPA policy on "recombination" of flows. Recombination is the blending of the part of the total flow that is diverted from secondary treatment with those flows that receive secondary treatment. In Mansfield the recombination only occurs during wet weather. In a letter to Senator Frist dated March 7, 2001, U.S. EPA indicated that NPDES permit issuing authorities (in our case, Ohio EPA) have considerable flexibility in address-

ing the recombination situation. Generally speaking, if the recombined flows meet permit limits based on secondary treatment or more stringent water quality-based effluent limits and the WWTP was designed to operate in this fashion, then this practice may be approved in the permit. However this policy has not yet been finalized. The agency states that it will be developing guidance addressing this issue. We plan to monitor and participate as necessary. We believe that the guidance should also clarify that, in a separate sanitary system, load limits may increase during wet weather. At this point we are somewhat unclear as to Ohio EPA's view on the recombination issue other than that it is willing to consider various alternatives. We will know more in the near future.

If U.S. EPA confirms this interpretation in the recombination guidance, Ohio EPA will be able to act on the Mansfield situation as it deems appropriate. We do not believe that Ohio EPA should be denied the ability to draft flexible permits as a result of the U.S. EPA interpretation.

We ask that you continue to monitor these issues both in the regulatory process and through confirmation hearings for the U.S. EPA assistant administrator for water: If unsupportable determinations are made by U.S. EPA, we would like to discuss with you options that may be available. Last year Congress acted through the appropriations process to require further examination of the TMDL (Total Maximum Daily Load) rule. Such an approach could be appropriate for these issues. Another approach to overly stringent U.S. EPA requirements would be the expansion of the grant program in the Wet Weather Water Quality Act of 2000 to provide financial support to cities facing high or increasing wastewater treatment costs due to wet weather. Finally, U.S. EPA should aggressively develop and approve more cost-effective wastewater treatment technology.

If rule interpretation continues in its current direction, then the City is on a path with EPA to spend tens of millions of dollars to provide additional treatment for 3½ percent of total annual flow to the WWTP in order to eliminate less than 10 annual EQ basin overflows, which are currently meeting all NPDES permit requirements.

In closing, I would like to thank you for your interest in these matters and for your efforts on behalf of the cities in Ohio.

STATEMENT OF ROBERT VINCENZO, MAYOR, CITY OF ST. CLAIRSVILLE, OH

St. Clairsville is a city of 5,100 in the eastern side of the state, 10 miles from Wheeling, West Virginia. We are located in Belmont, one of Ohio's Appalachian Counties. Our City is largely residential and service based. We are the county seat. The largest retail area in mid eastern Ohio is located on the eastern edge of my City.]

In the early 1980's the city took advantage of U.S.E.P.A.'s 75 percent grant to build our main Waste Water Treatment Plant, a 950,000 GPD average design. We also rehabilitated sewer lines in an effort to limit infiltration and inflows. The latter has been largely a failed effort. Although we have repeatedly tested for and eliminated inflow, we still have a tremendous infiltration problem whereby our flow increases five fold during wet weather. Our old clay lines dating to the 1920's act as a leech field collecting subsurface drainage. This causes flooding of pump stations, the plant, and homes. In 2002 we will bid the replacement of 4 pump stations (about ⅓ of the total) and 5,200 feet of lines (almost 3 percent of our total) at an estimated cost of $600,000.

In performing this upgrade in the 1980's we achieved one of the highest wastewater rates in Ohio. About 24 percent of our current department budget goes to debt service. According to the most recent OEPA statewide rate survey (issued February, 2001 for 1999 calendar year) St. Clairsville's rate is in the 33d percentile. But just after that study was done the city boosted its rate another 27 percent (in August 2000) and if that number is factored into the OEPA survey our rate is in the 12th percentile out of 444 systems reporting. (As a side note, customers take a double hit in that we are in the top 10 percentile in water rates statewide.)

As these numbers indicate St. Clairsville has taken steps to help itself by paying much of our own way. We believe that despite our many needs we have a comparatively strong system, but our residents have a high rate burden, and to fulfill our needs the rates will go even higher unless there is some infusion of outside capital. Ohio's Public Works grants have helped, but the effectiveness of that was diluted when the State allowed these funds to be used for road resurfacing and tailored the grant point system to rank these politically popular projects higher than wastewater projects. Our wastewater rates constitute about 2 percent of household income. We do not believe we can push them much higher. Our current needs in brief include:

(1) Flow equalization to prevent system surcharging (flooding) during storms.

(2) Pump station and line replacement.

(3) Hydrogen Sulfide (H2S) control. (This gas occurs naturally and destroys concrete and structures in the collection system.)

(4) Relocation or expansion of the city's second plant, a 90,000 GPD design structure that is at design capacity. Relocation would allow us to move the plant from a congested area, and extend service to an underserved area. In St. Clairsville's experience expansion of wastewater treatment definitely yields new development. However, Ohio's pending annexation law as drafted makes such expansion far less attractive to the city. Neither the surrounding County or the Township has filled this need historically.

These above needs total about $10 million for this basic utility.

We do not criticize the need for clean water, we support that. We do feel that EPA's focus should be on communities meeting their permit limits, and should not be a micro management type control of plant operations. Instead EPA should focus on the discharge quality, and not on regulating the specific increments of the process used to reach that quality.

EPA has been very helpful in assisting the city technically in solving a difficult treatment problem which has stymied various city engineering consultants. The work of Ohio EPA in conjunction with our operator solved a treatment problem and resulted in a nationally published technical paper to help others.

So, what help do we need? Our answer is nothing you have not heard too often before . . . more money. We have dedicated our own resources to improving our systems, and we have taken the unpopular steps of pushing our rates to the limit. Our customers have shouldered the burden of support. But to restore these systems, particularly our system will take resources beyond that which we currently have or will have.

I am aware that there is not an instant solution for our situation. However, I am very appreciative of your concerns to conduct this hearing for some positive feed back and I am very pleased to have an opportunity to testify before your Committee and provide additional insight to the plight of Small Cities and Villages. Thank you.

STATEMENT OF CHRISTOPHER JONES, DIRECTOR, OHIO ENVIRONMENTAL PROTECTION AGENCY

Chairman Crapo, Senator Voinovich, thank you for the opportunity to speak about the wastewater infrastructure needs of Ohio communities. Those needs are great and the resources to address them are currently not adequate.

The Clean Water Act has brought about tremendous improvement in the quality of Ohio waters. By mandating control of point source discharges, including sewage treatment plants, the Act has enabled many streams to recover from low oxygen conditions, excess phosphorus discharges, and other degradation. There are many dramatic examples of the results, most notably perhaps the renaissance along the banks of the Cuyahoga River in Cleveland and the resurgence of Lake Erie as a world class fishing destination. I understand that Senator Voinovich may be planning a fact-finding mission on the Lake this summer to confirm for himself that the walleye and perch are really biting.

In the 1970's and 1980's, many of the infrastructure projects that enabled water quality improvements throughout the State were funded through the Federal Construction Grants program, which provided 75 percent of the cost of sewage treatment infrastructure mandated by the Clean Water Act. As you know, that program was converted to a low-interest loan program administered by the States.

The State Revolving Loan Fund program is currently due to be reauthorized, and I know that Governor Taft has written you to express his strong support for your bill to do that, Senator Voinovich. We are particularly pleased that S. 252 would double the current level of funding to $3 billion per year over 5 years. If enacted by Congress and signed by the President, S. 252 will greatly assist communities in Ohio and throughout the Nation with the construction, expansion, and improvement of sewage treatment facilities.

However, even doubling current spending will not adequately meet the mandates in the Clean Water Act. I would like to briefly outline the needs in Ohio, and then to suggest two areas in which targeted resources are particularly needed.

Ohio EPA is in the process of updating the Clean Water Needs Survey, which we do every 5 years in cooperation with U.S. EPA. Unfortunately, the 2001 results are not yet available, so the figures I am about to give you are based on the 1996 survey. We hope to have more current numbers by mid-summer.

The total infrastructure need in Ohio, according to the survey, was $7.4 billion. That need can be further broken out as follows:

- $1.1 billion for wastewater plant construction and improvement
- $900 million to repair existing sewers
- $900 million for construction of new sewers
- $97 million for storm water controls
- $198 million for nonpoint source pollution abatement
- and $4.2 billion for combined sewer overflow elimination.

Combined sewer overflows account for more than half of the infrastructure needs in Ohio. Frankly, Senators, even with a dramatic increase in low-interest loan dollars, this burden is too much for many communities. There are 92 Ohio communities with combined sewers, and they range from the largest of our cities, such as Cleveland, Akron, Toledo, Youngstown, and Cincinnati, to very small communities like Van Wert and Lisbon. In fact, a total of $16 million for CSO controls is needed in communities with fewer than 1,000 residents.

As an example, Port Clinton, a northwestern Ohio town of a little more than 7000 people, has completed a Combined Sewer System Long Term Control Plan. The plan recommends improvements over the next 5 years of between $8 million to $14 million. Port Clinton's annual average sewer rate is now $566, 77 percent higher than the State average. To pay for the improvements, in today's dollars the average sewer bill will increase to $846 in 2004 , and to $1,132 in 2010. These financial projections already include a $1.5M grant expected in 2002 as part of a previous budget bill.

Eliminating combined sewer overflows is important if we are to continue to improve water quality. But the cost of controls is simply out of reach of most communities. Noncompliance brings Federal sanctions, including monetary penalties that simply exacerbate the problem. What is needed are Federal grant dollars, matched with State and local funds. This is the only way that CSO control infrastructure is likely to be built on the necessary scale nationwide, particularly when you consider that the same communities that must invest in these controls must also maintain aging wastewater treatment plants and sewer lines.

The second area where Ohio would like to see targeted Federal grants is to provide sewers in low-income areas where failing septic systems are causing public health concerns. It is difficult to believe that in the year 2001 in the United States of America, people are living with raw sewage in the back yard, in the drainage ditch, or in the creek. But it's true in far too many communities. The 1996 Clean Water Needs Survey identified 199 areas in Ohio with high densities of failing on-lot septic systems, a number we believe significantly understates the real need. We are attempting to gather more accurate information in the survey that is ongoing now.

Clearly, exposure to drainage from a failing system threatens public health, but the threat does not end there. Pooling effluent is a breeding ground for mosquitos, which carry encephalitis, including the form known as West Nile Virus. Ohio expects to see West Nile Virus, which is potentially fatal, in the far eastern parts of the State this summer. At the same time, Lake County has filed a complaint, which we are now investigating, that the neighboring county to the east is allowing discharges from on-lot systems to go unabated, affecting water quality in Lake County downstream. These are our easternmost counties, and the places where mosquito breeding is particularly worrisome right now.

Community development is also impeded by failing on-lot systems. Obviously, a home with a septic system that does not work properly declines in property value. It becomes even more difficult to revitalize these low income areas, because few people would choose to live with such a nuisance if they could afford not to.

One example of a small Ohio community that is doing its best to rectify this problem is the village of Morristown, in Belmont County. The Village has been trying for years to find an affordable way to install sewers. Raw sewage from failing septic tank systems has been confirmed in the storm sewers and creeks around the town.

Development in the Morristown area has grown stagnant due to the lack of suitable wastewater facilities. Ordinary businesses that we all take for granted, such as a restaurant or a laundromat, have been unable to locate in the area.

The village has evaluated different alternatives, trying to find something that would be affordable for the 350 residents. The most recent proposal is for the village to construct sewers to tie into the existing Belmont County Fox Shannon wastewater treatment plant. The county has already extended sewers to the edge of the village to enable the village to tie in. However, the cost to the village residents could be as high as $105 per month for the approximately 130 households in the village without supplemental grants to bring down the cost.

Low interest loans, even zero interest loans, are not particularly helpful in this situation. Residents living at or near poverty level simply cannot afford to repay the loan. Again, Federal grants are needed. I don't think it is an exaggeration to say

that there are places in America, places in Ohio, where the lack of adequate sewage treatment compares to that in some Third World countries. The Federal Government simply must help.

I do not want to leave you with the impression, however, that increasing funding is the only thing we can or should do. Regulatory flexibility will help available dollars go further and reduce the obstacles to compliance for many communities. Among the things Congress can do are:

Say Clearly That State Primacy Means Primacy.—The CWA should explicitly articulate minimum standards that States must meet to achieve primacy, that is, delegation of the Federal program. Once the State is awarded primacy, there should be no independent Federal presence unless the State fails to perform its obligations. The Federal agency should not second-guess enforcement decisions or permit conditions.

Create Block Grant Funding.—Currently, funding under the Clean Water Act is a maze of separate grant programs, each with its own requirements. The goal of restoring and preserving watersheds drives all the State's clean water activities: permitting, enforcement, wetlands restoration, nonpoint source mitigation, monitoring, and so on. Yet most of these activities are funded through separate grants, imposing a burdensome grant tracking obligation. Clean air programs are managed for the most part under a single grant, and successfully so. Federal funding under the Clean Water Act should be changed to a block grant system, with the State held accountable for maintaining the fundamental standards of a delegated program, and free to allocate Federal dollars according to its unique needs to achieve that end.

Recognize That When Everything Is A Priority, Nothing Is A Priority.—Currently, U.S. EPA is pressing States, and ultimately communities, to move forward simultaneously on all fronts. Municipal and industrial permits must be updated every 5 years, sewer overflows must be controlled, storm water must be controlled, wetlands must be protected, coastal areas must be managed, stream uses must be designated, and on and on. Yet none of these efforts is adequately funded. The result is that States can do a little of everything, and not enough of anything.

Congress should change the term of discharge permits from 5 years to 10 years. States spend inordinate resources renewing permits every 5 years, even though there is frequently no substantive change in permit requirements. There is a national backlog of expired permits, largely because States recognize that renewal on a 5-year schedule is often a paperwork exercise that produces less benefit than actual field work.

In addition, the reporting schedule under Section 305(b) should be changed from every 2 years to every 5 years. This section requires States to report water quality trends. Meaningful changes are unlikely to show up on a 2-year cycle. Five year reporting will ease the resource burden without negatively impacting forward progress.

GAO should evaluate whether States without an active antidegradation program are making less progress toward the "fishable, swimmable" goal, or whether antidegradation enforcement makes little difference in States' progress. The goal of antidegradation is to "keep clean waters clean." However, the Act is unclear with regard to when a discharge is significant enough to trigger this provision. Many States, therefore, fail to implement antidegradation, while others, including Ohio, devote significant resources to it. A GAO analysis could help to determine whether the antidegradation process effectively supports the goal of the Clean Water Act.

Chairman Crapo, Senator Voinovich, thank you for your willingness to explore this problem and work with us toward constructive solutions. On behalf of Governor Taft and the many communities in Ohio that are struggling to address their wastewater infrastructure needs, your interest is much appreciated.

Periodically, USEPA conducts a national survey of the needs for water quality-related facilities and improvements. This survey, called the Clean Water Needs Survey (CWNS), provides EPA with a detailed estimate of the funds needed in Ohio and across the country for activities necessary to comply with the requirements of the Clean Water Act. To assist USEPA, the Ohio EPA collects statewide data from communities and compiles the results. Since the best source of data are the communities of the state, we rely on them to provide us with information relative to specific water quality needs.The needs presented here are from the 1996 Clean Water Needs Survey. The needs are based on information provided by individual communities and Ohio EPA district offices. The majority of the costs for Categories I through IVB are based on documents provided by the community. The majority of the costs for Categories V, VI and VII are based on costgenerating computer models used by USEPA.

1996 Clean Water Needs Survey Summary

Category I: Secondary Treatment	$830,000,000
Category II: Advanced Treatment	$248,000,000
Wastewater Treatment Costs Subtotal	$1,078,000,000
Category IIIA: Infiltration/Inflow Correction	$748,000,000
Category IIIB: Sewer Replacement/Rehabilitation	$191,000,000
Existing Sewer Rehabilitation Costs Subtotal	$939,000,000
Category IVA: New Collector Sewers	$358,000,000
Category IVB: New Interceptor Sewers	$534,000,000
New Sewer Construction Costs Subtotal	$892,000,000
Category V: Combined Sewer Overflow Abatement (both documented and modeled)	$4,199,000,000
Category VI: Storm Water (both documented and modeled)	$97,000,000
Category VII: Nonpoint Source Pollution Abatement (both documented and modeled)	$198,000,000
Grand total	$7,403,000,000

It is important to note that the cost in these tables are at least 5 years old. Communities have implemented improvements since 1996 that are not reflected here. In addition, new areas of needs have been identified since 1996 that are not reflected here at all.

To update this information, Ohio EPA has been asking cities, villages, counties, sewer districts, and health departments across the State for assistance with collecting information regarding wastewater, storm water, and nonpoint source pollution control needs in Ohio. In order to update and correct this information for the 2001 effort, we've requested information from more than 1,000 separate entities asking them to provide updated information for the CWNS.

1996 Clean Water Need Survey

Summary for Ohio	Total	pop < 1,000	1,000 < pop < 3,500	3,500 < pop < 10,000	pop >10,000
Category I: Secondary Treatment	$830,000,000	$71,000,000	$89,000,000	$23,000,000	$647,000,000
Category II: Advanced Treatment	$248,000,000	$14,000,000	$24,000,000	$10,000,000	$200,000,000
Wastewater Treatment Costs Subtotal	$1,078,000,000	$85,001,000	$113,001,000	$33,003,500	$847,010,000
Category IIIA: Infiltration/Inflow Correction	$748,000,000	$10,000,000	$11,000,000	$287,000,000	$440,000,000
Category IIIB: Sewer Replacement/Rehabilitation	$191,000,000	$0	$3,000,000	$4,000,000	$184,000,000
Existing Sewer Rehabilitation Costs Subtotal	$939,000,000	$10,000,000	$14,000,000	$291,000,000	$624,000,000
Category IVA: New Collector Sewers	$358,000,000	$105,000,000	$81,000,000	$36,000,000	$136,000,000
Category IVB: New Interceptor Sewers	$534,000,000	$46,000,000	$49,000,000	$25,000,000	$414,000,000
New Sewer Construction Costs Subtotal	$892,000,000	$151,000,000	$130,000,000	$61,000,000	$550,000,000
Category V: CSO Abatement (doc + model)	$4,199,000,000	$16,000,000	$287,000,000	$317,000,000	$3,579,000,000
Category VI: Storm Water (doc+model)	$97,000,000	$0	$0	$0	$97,000,000
Category VII: NPS Pollution Abatement (doc + model)	$198,000,000	$0	$0	$0	$198,000,000
Grand Total	$7,403,000,000	$262,000,000	$544,000,000	$702,000,000	$5,895,000,000

The above table breaks down the information by population density and category of needs. As can be seen from the Table, Category V: Combined Sewer Needs is an area where Ohio has significant needs: $4.2 billion. In Ohio, we have 92 communities with CSOs and those communities range from the very small to major sewer districts such as Cincinnati and Cleveland. Unfortunately, the significant costs to deal with CSOs and protect water quality are so high that projects are often unaffordable, even in large communities like Akron, Cincinnati and Cleveland. This is why grant money is needed to lower the cost to the local community.

A second area that should be highlighted is the issue of failing individual home sewage disposal systems. Surfacing sewage from failing systems or pooled effluent from discharging systems can be a direct public health threat as well an ideal breeding ground for mosquitos. In addition, there is a direct economic cost due to the lower property values for homes in these areas, The CWNS identified 199 different areas in Ohio with high densities of failing individual home sewage systems. Ohio EPA feels the 199 count signifcantly underestimates the existing need and is conducting a better survey to improve our data. Buildiong new sewer plants and/or accessing centralized sewers is often the only way to abate the unsanitary conditions. New sewer construction is usually unaffordable due to the high costs for new sewers and low incomes of many rural areas, especially in southeast Ohio's appalachia area. Based on the CWNS data, we estimate that $240 million is needed to provide sewers and/or treatment to the 199 area identified in the 1996 CWNS. Without direct grant money to buy-down the costs of these projects, the problem will continue unabated.

STATEMENT OF ERWIN J. ODEAL, EXECUTIVE DIRECTOR, NORTHEAST OHIO REGIONAL SEWER DISTRICT

As executive director of the Northeast Ohio Regional Sewer District (District), I appreciate this opportunity to provide information to the Subcommittee on Fisheries, Wildlife, and Water, Committee on Environment and Public Works on wastewater infrastructure needs in the State of Ohio. The District has served the communities of Northeast Ohio for almost thirty years, bringing vast improvements to the water quality of the area and contributing to the rebirth of the Cleveland area. I appreciate the opportunity to tell you about the District's efforts and our needs and concerns for the future of the environment .

The District has invested significant resources to address water infrastructure needs in Northeast Ohio. Since its creation in 1972, the District has invested over $1.6 billion for capital improvements to the wastewater conveyance and treatment system throughout its 54 community service area. The major thrust of these improvements included upgrades of our three treatment plants (Easterly, Westerly and Southerly), construction of five major interceptors (Southwest, Heights/Hilltop, Mill Creek, Cuyahoga Valley and Northwest) and numerous intercommunity relief sewers throughout the District's service area. As noted at the top of the Attachment 1 Summary, these projects were financed in part by Federal grants under the Clean Water Act Construction Grants Program (35 percent) and recent special Federal appropriation grants (4 percent), with the balance (61 percent) paid for by the District's ratepayers either as repayment of low interest loans received under Ohio's State Revolving Fund program, the Water Pollution Control Loan Fund (WPCLF), or as pure NEORSD local funds.

The most recent regulatory requirement imposed upon the District is our combined sewer overflow (CSO) management and reduction program. This program resulted from Ohio's implementation of U.S. EPA's 1994 Combined Sewer Overflow Policy. Included in this effort is construction of CSO storage tunnels and tanks, relief sewers and treatment facilities, CSO system rehabilitation and/or modification, and potentially, sewer separation projects. These projects are being conducted on a watershed basis, enabling the District to identify and evaluate the impact of combined sewers and numerous other stressors to water quality in the Northeast Ohio area. As noted on the bottom of Attachment 1, the District has spent over $220 million to date on its CSO program, of which $26 million was funded through Federal grants (11 percent) with the balance paid for by the District's ratepayers, either as repayment of low interest loans received from the WPCLF program (66 percent) or as pure NEORSD local funds. It is expected that the total cost to the District for CSO projects could approach $1 billion over the next 15 years.

As you can see from the numbers above and those in Attachment 2, the burden of wastewater infrastructure funding has shifted from significant Federal grants, which do not require repayment, to State revolving loans, which must be repaid. The ratepayers' burden has increased from about 37 percent to over 90 percent.

While it is impossible to calculate the potential rate increases that will be required by ongoing and future regulatory requirements, there is no question that, without additional funding resources in the form of grants and low or zero interest loans, the District's ratepayers will continue to bear essentially all of the costs of these expensive programs.

The District strongly supports the Water Infrastructure Network (WIN) and Water Infrastructure Caucus in their efforts to identify a mechanism for closing the large funding gap that exists today. The level of infrastructure improvement required by existing and future Clean Water Act requirements exceeds the amount of available funding by orders of magnitude. This fact is recognized by EPA as well as the State and local entities attempting to improve water quality and protect the public. A consistent source of funds, distributed in the form of grants and low or zero interest loans, is the only way that municipalities with limited resources will be able to maintain the water quality improvements achieved to date and assure further improvement in the future. Information on the WIN and Win's recent recommendation report, WINow, are included in the packet of materials provided.

In addition to funding wastewater infrastructure needs, however, the District believes that there is a great deal that can be done to improve local communities' ability to address water quality issues in an efficient and cost effective way. One of the key impediments to this is the lack of programmatic interaction between the current EPA mandates for CSOs, Separate Sanitary Overflows (SSOs), Stormwater management and Total Maximum Daily Loads (TMDLs).

Currently, communities are required to address CSOs, SSOs and stormwater through three separate regulatory programs. Each program requires extensive monitoring, infrastructure modification/capital investment, and recordkeeping and reporting. Yet the need for these three programs is the same: the ability of municipal wastewater and stormwater systems to address wet weather impacts on water quality. It has been EPA's position that these separate programs will come together through the TMDL process. Yet even through TMDLs, the three programs remain separate and independently enforceable. There is no flexibility for communities prioritize their water quality issues and begin addressing the most significant sources of water quality impairment first.

As a member of the Association of Metropolitan Sewerage Agencies (AMSA), we have been working toward proposing legislation that would give EPA the authority to combine these separate regulatory programs into a unified wet weather regulatory program. A unified program would enable municipalities to evaluate the sources of their wet weather water quality problems and rank them by environmental benefit, thereby allowing the community to address the most severe environmental stressors first and getting the "most bang for the buck." To date, EPA has spoken of the benefit of such a unified program, but has taken no action to pursue this course of efficient and cost effective environmental protection. A legislative mandate would certainly provide the legal authority and impetus for such a reworking of Clean Water Act requirements.

Increased flexibility also represents an opportunity to jump start the process of restoring urban streams through adoption of urban water quality standards that are tailored to specific watersheds. We believe that this tailoring also has the potential to result in substantial cost savings for the public. Typically, streams which predominately drain urban areas are affected by the complex land use patterns to such an extent that they are not capable of attaining the current water quality standards, which are benchmarked against the most pristine areas of the State. We believe that a cooperative program between watershed communities and regulatory agencies must be formed to start restoration processes and evaluate land use practices that threaten the last remaining habitat along streams. Communities need to be empowered and encouraged to understand urban impacts on streams and look at the potential value of the resource to the community. State regulatory agencies need flexibility within Federal regulatory guidelines to adopt standards that make sense for streams that are substantially altered by their surrounding land use patterns.

We believe these are important new directions that have the power to result in substantial improvements to urban streams. However, at the same time we are concerned that these programs might be stalled by the inflexibility of current Federal regulatory guidelines. Current regulations have been interpreted to allow revisions of water quality standards only where substantial and widespread social and economic impact is at issue. In addition, EPA has been resistant to accepting Ohio EPA's proposed use of biological criteria as a holistic measure of stream health. Clean Water Act requirements must be both realistic and accepting of innovation and creativity to encourage progress in improving urban water quality.

Encompassing all of these issues is the lack of a sound scientific basis driving the management of wet weather flows and determining appropriate water quality. While EPA has committed to do so, it has failed to pursue what we believe to be the key to effective wet weather management—the development of wet weather standards and associated management techniques. Until the impact of wet weather flows and urbanization are studied and scientifically defensible water quality standards are developed, municipalities will be spending billions of dollars to address non-existent or marginal water quality impacts simply because the current dry weather-based regulatory scheme requires such actions. In addition, the burden of water quality compliance will continue to be placed on point source discharges such as publicly owned treatment works, when the most significant sources of impairment is actually from non-point source (i.e.) agriculture and urban runoff.

We would be most interested in continuing the discussion of modifications to current legislative and regulatory guidelines in ways that we believe would vastly enhance our potential to make substantial progress on the overall improvement of water quality and the restoration of urban streams. I appreciate the subcommittee's interest in this area, and welcome any opportunity to be of assistance.

Attachment 1

Total NEORSD Capital Costs	USEPA Construction Grants	USEPA Special Appropriation Grants	Total Federal Share [In percent]	SRF Loans	NEORSD Funds	Total Local Share [In percent]
NEORSD Whole Capital Program 1972–2000:						
$1,609,750,000	$555,500,000	$72,000,000	39	$387,400,000	$594,850,000	61
NEORSD CSO Control Capital Program Component 1972–2000:						
$221,800,000	$14,300,000	$12,000,000	11	$145,400,000	$50,100,000	89

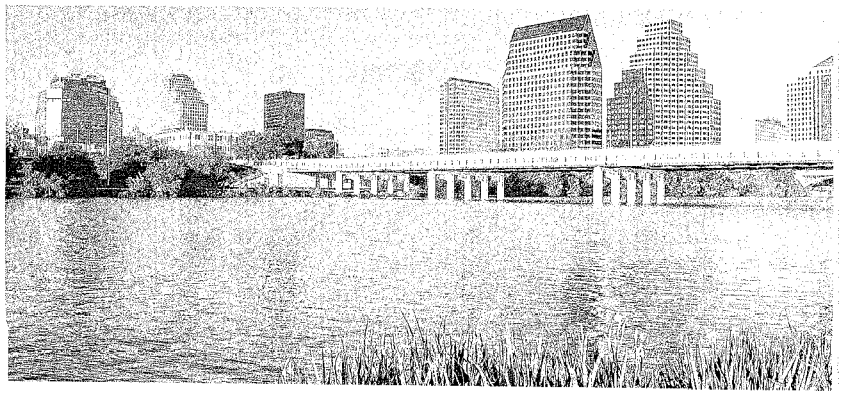
Attachment 2.—EPA Construction Grant Program vs. Post-Construction Grant Era

	Total NEORSD Capital Costs	USEPA Grants	Total Federal Share [In percent]	SRF Loans	NEORSD Funds	Total Local Share [In percent]
NEORSD Whole Capital Program:						
1972–1990	$881,100,000	$555,500,000	63	$0	$325,600,000	37
1991–2000	$728,650,000	[1] $72,000,000	10	$387,400,000	$269,250,000	90
NEORSD CSO Control Capital Program Component:						
1972–1990	$23,800,000	$14,300,000	60	$0	$9,500,000	40
1991–2000	$198,000,000	[2] $12,000,000	6	$145,400,000	$40,600,000	94

[1] Reflects FY 1995, FY 1997 & FY 1998 USEPA Special Appropriation Grants.
[2] Reflects FY 1997 & FY 1998 USEPA Special Appropriation Grants.

Water INFRASTRUCTURE NOW

RECOMMENDATIONS FOR CLEAN AND SAFE WATER IN THE 21ST CENTURY



WATER INFRASTRUCTURE NETWORK

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.

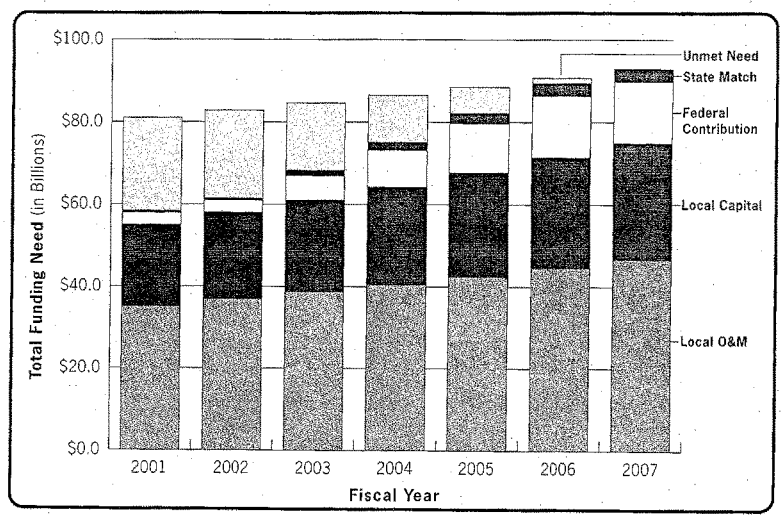
Accordingly, WIN recommends that Congress renew its commitment to America's water resources with $57 billion in new authorizations and funding to capitalize state-administered grant and loan programs through Water and Wastewater Infrastructure Financing Authorities (WWIFAs).[2] As depicted below, WIN 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.

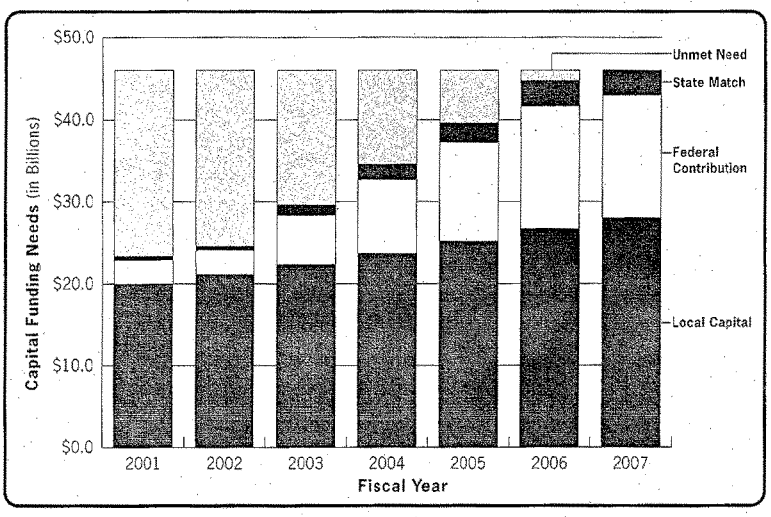
Over this five-year period, this level of funding is approximately half the capital funding shortfall.[3] In the chart below, WIN has identified how this new federal contribution could augment other sources to eliminate unmet needs by 2007.



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.

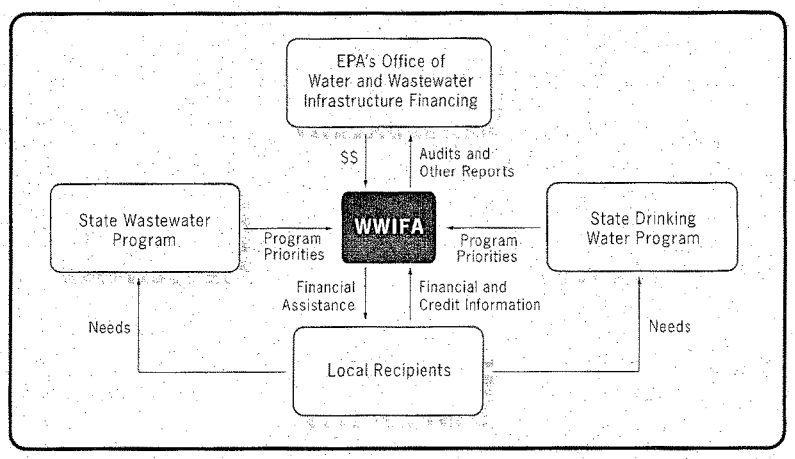
WIN recommends that states retain the flexibility to shift the use of their capitalization grant funds from water to wastewater or vice versa, with two conditions. First, neither water nor wastewater allocations in any year could drop below 35 percent of that state's annual capitalization grant as a 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**

STATEMENT OF DONALD M. MOLINE, P.E., DEE DIRECTOR OF PUBLIC UTILITIES, TOLEDO, OH

I am Donald M. Moline and I am the public utilities director for the city of Toledo. On behalf of Mayor Carleton S. Finkbeiner, I am pleased to provide you with some thoughts and ideas as they relate to wastewater infrastructure. More specifically, I would like to relay our experiences in treating or controlling wet weather events.

The city of Toledo's wastewater system serves about 375,000 individuals. The wastewater treatment plant treats, on an average, 75 million gallons per day (MGD) with wet weather flow going up to 400 MGD.

The city of Toledo is currently involved in discussions to settle a lawsuit that was brought by the USEPA on October 29, 1991. The claim was that the city of Toledo had not been meeting the limits of it's NPDES permit at the final effluent discharge to the Maumee River. The plant had just undergone a massive rebuilding effort, with Federal assistance, and had not been in full compliance. Over the approximately 10 years of this lawsuit, the final effluent has come into significant compliance and therefore it's discharge is not an issue. The focus of the debate then switched to the issue of bypassing.

During wet weather, most older, Midwestern cities that have combined sewers must bypass the treatment plant either from a CSO (combined sewer overflow) or a primary bypass at the plant itself. This practice is not unique to the city of Toledo. Wastewater treatment plant were not built to handle large raw water flows that happen relatively infrequent. The basic problem centers on the fact that there are very few ways to remedy this situation.

Wet weather facilities are only used during rain and the traditional biological treatment cannot sit idly by waiting for rain. The alternative is to develop some different form of treatment or provide storage for wet weather flows with the idea of treating this water after the rain event has subsided. The city of Toledo was involved with both alternatives, our costs for this is over $80 million.

The issue of bypassing was submitted to Judge James Carr in Federal district court in Toledo. He ruled that bypassing was illegal if 'feasible alternatives' are available. This is a term contained within the Clean Water Act and he defined feasible alternatives to include building new treatment units or storage tanks. He stopped short of defining what measure would need to be undertaken or how much. He did, however, indicated that maximizing your existing treatment plant was not sufficient when it comes to feasible alternatives and bypassing. This has huge ramifications for the wastewater industry in general.

The USEPA has insisted that we build an equalization basin that would hold sufficient quantity of wastewater such that we could avoid most bypassing. This amounts to a $60 million basin.

In previous discussions, we had conceived and designed an alternative wet weather system that would treat the higher flows and return them to the Maumee River without the need for storage. We were going to combine our swirl concentrators with an Actiflow system to treat the water. We fully intend to ensure that the discharge would meet water quality standards such that no harmful effects would be produced. This alternative could have saved us at least $40 million. The USEPA indicated that this was a good idea and that we should downsize just slightly the Actiflow system and combine it with the 60 MGD Equalization basin. The remedy went from our idea costing $30 million to $35 million to their idea costing $80 million. The disappointing part about this is that there is little benefit to the water quality of the river. The reason that they would not agree to the Actiflow system alone was that we were not giving all of the wastewater secondary treatment and therefore it technically was a bypass. They would be willing to allow us to build such a system as long as we built an equalization basin too. They were standing on a technical definition that bypassing any treatment unit constituted a bypass regardless of the water quality impact or cost.

In essences, what we had proposed was not a bypass, but a blending of wet weather treatment system and the full secondary treatment. This in an important distinction in that the USEPA has recently informed Congress that the concept of blending should receive favorable consideration when looking at wet weather alternatives. In our particular case, the USEPA would only agree to blending provided we not only remedied the issues at the wastewater plant but also embarked upon a massive construction program in the collection system.

The previous discussion is only a portion of our lawsuit issues, but it serves to highlight some of the problems with completing wastewater infrastructure projects. The first topic that needs to be addressed is regulatory oversight. The USEPA in recent years has placed more emphasis on enforcement rather than water quality results. Meeting the technical definitions contained within rules and regulations is

more important than water quality standards. There seems to be an imbalance between the technical assistance and the enforcement divisions within the agency. There needs to be more assistance, which will lead to greater cooperation in solving technical issues rather than achieving goals through the enforcement provisions. In our particular situation, we have experienced this with the bypass and blending issues. We believe that our alternative would have been able to provide the same water quality benefits at a much lower cost.

A second area that involves regulatory oversight is the issue of cost effectiveness and scientifically based reasoning. Again, it has been our experience that these two concepts are secondary to meeting the procedural criteria of the enforcement section. In discussions, everyone champions the idea of applying good scientific evidence, sound engineering principals and cost effective solutions to problems, however, in practice, these issues are not given the weight or consideration which is appropriate. Often municipalities are forced to comply with standard procedures that are based solely on approved treatment techniques. This unyielding approach ultimately leads to higher costs for wastewater infrastructure. The recently adopted CSO Policy has a better approach. This policy talks of a comprehensive and coordinated planning effort by the municipality, the regulatory agencies and the public. It allows for site-specific solutions and the need for flexibility to tailor controls to arrive at the best solutions. The USEPA needs to fully embrace this approach to enhance technical assistance standpoint and reduce the need for regulatory enforcement.

In Toledo case, our proposed consent decree will cost the ratepayers over $400 million. The city of Toledo is prepared to spend this amount. We have not finalized the decree because we are concerned that the overall cost will balloon to $600 million or $700 millions. As I have previously indicated with our experiences, ballooning costs are a real possibility. To give you some idea of the impact of these costs to the city of Toledo, consider the following. The current overall debt of the entire city of Toledo over the last 100 years is around $423 million. With the wastewater projects proposed, the city of Toledo will double its debt. This places a huge burden on the ratepayers. Over the next 15 years, we anticipate our rates will more than double to provide enough funds to service the debt. We recently put out a Request for Proposals (RFP) for the engineering on these projects and that alone will cost $35 million.

The amount of funds being request for infrastructure improvements may lead to the conclusion that the city of Toledo has neglected it wastewater system. This simply is not true. Toledo has been a proactive leader in wastewater improvements. We have installed storage tunnels for the combined overflow system (CSO) to catch the first flush and we have continually invested in our system. Over the last 20 years we have invested over $234 million in infrastructure improvements.

The need for the water and wastewater capitol infrastructure improvements industry wide over the next 5 years amounts to an estimated $46 billion per year. That equals $230 billion over that 5-year period. Clearly, there is a tremendous need. Since the early 1970's, Federal funding of water and wastewater projects has been steadily declining. It is time to reverse this trend. Congress needs to create a long-term, sustainable, and reliable Federal funding structure. This should include things such as grants, low interest loans, loan subsidies, congressional earmarks, State revolving loan funds and refinancing opportunities. The Federal Government should ensure that the programs are fully funded, provide flexibility in their use and streamline the funding application process. At a minimum, the industry need $57 billion from years 2003 to 2007 just to remain solvent. In summary, Congress should encourage the following:

1. Regulations that are based on sound scientific and engineering principals.
2. Regulations that are based on water quality objective.
3. Regulatory actions that place an emphasis on cooperation rather than enforcement as outlined in the CSO Policy.
4. Federal funding that is long term and in sufficient quantities to help meet the need of the industry.
5. Clarification of the language (blending, bypass issues) of the Clean Water Act to provide flexibility in meeting the demands of wet weather treatment systems.
6. Provide research and support for the use of new, innovative technologies.
7. Provide Federal grants because the need is so large.
8. Continue to educate the public of an often overlook area of public health and environmental protection.
9. Allow communities to become a partner in the process, not simply those who execute the plan.
10. And finally, put more emphasis on non-point source discharges rather than continuing to try to extract water quality gains from point source discharges that

have been improved significantly in the last 10 years. It simply does not benefit the environment to continue to follow this approach.

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Maumee River
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SCALE IN FEET
CITY OF TOLEDO, OHIO
BAY VIEW WASTEWATER TREATMENT PLANT
MASTER SITE PLAN
OPTION 1
Jones & Henry Engineers, Ltd.

12/04/2000

SANITARY SEWER FUND MAJOR CAPITAL PROGRAM: 2000 - 2015

PROJECT	PROJECT COST (In Thousands of Dollars)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
(Wet Weather Improvements)																	
1. Meeting Room Construction	$ -	$ 5,850	$ 3,000	$ -	$ -	$ -											$ 8,850
2. 60 MG Equilization Basin	$ -	$ 7,000	$ 4,000	$ 10,000	$ 25,000	$24,000											$ 70,000
3. Pump Station and Solid Concentrators	$ -	$ 650	$ 2,700	$ 1,000	$ 300	$ -											$ 4,650
4. Final Tank No. 13	$ -	$ 600	$ 1,200	$ 4,500	$ 1,000	$ -											$ 7,300
5. Wet Weather Treatment Facility	$ -	$ 410	$ 6,000	$ 13,000	$ 3,400	$ 100											$ 22,910
6. Final Effluent Pump Station	$ -	$ 500	$ 2,200	$ 2,000	$ 500	$ -											$ 5,200
TOTAL	$ -	$ 14,510	$ 18,100	$ 30,500	$ 30,200	$24,100											$ 118,410
(Other WWTP Improvements)																	
1. Secondary Plant Improvements	$ 3,800	$ 3,600	$ 2,200	$ -	$ -	$ -	$ -	$ -									$ 9,600
2. Sidestream Tank Separation	$ 296	$ 4,100	$ -	$ -	$ -	$ -	$ -	$ -									$ 4,396
3. Major Pump Station Renovation	$ 135	$ 1,470	$ 2,400	$ 500	$ -	$ -	$ -	$ -									$ 4,455
4. Backup Power System	$ -	$ 550	$ 3,000	$ 200	$ -	$ -	$ -	$ -									$ 3,750
5. WAS Thickening Renovations	$ -	$ -	$ 300	$ 3,000	$ -	$ -	$ -	$ -									$ 3,300
6. ME BldgRenovation/Blower Replacemt	$ -	$ 820	$ 500	$ 3,000	$ 1,200	$ -	$ -	$ -									$ 5,320
7. Blower Building Renovation	$ -	$ -	$ -	$ 500	$ 3,000	$ -	$ -	$ -									$ 3,500
8. Detritor/Grit Tank Replacement	$ -	$ -	$ -	$ -	$ 1,000	$ 3,000	$ 6,000	$ 5,000									$ 15,000
TOTAL	$ 4,230	$ 10,520	$ 8,400	$ 7,200	$ 5,200	$ 3,000	$ 6,000	$ 5,000									$ 49,550
(Sanitary Sewer Overflow Elimination)																	
1. Point Place Phase 1 Construction	$ 4,100	$ -	$ -	$ -	$ -	$ -											$ 4,100
2. Point Place Phase 2 Study-Construct.	$ -	$ 100	$ 500	$ 6,400	$ 7,000	$ 6,000											$ 20,000
3. River Road/Detroit Av SSO Elimination	$ 600	$ 1,000	$ 1,500	$ 750	$ 750	$ 750											$ 5,350
TOTAL	$ 4,800	$ 1,100	$ 2,000	$ 7,150	$ 7,750	$ 6,750											$ 29,650
(Interceptor Inspection/Rehabilitation)																	
1. Swan Creek Interceptor Rehabilitation	$ 3,300	$ 2,500	$ 800	$ -	$ -	$ -											$ 6,600
2. Remaining Interceptor Inspect/Rehab	$ -	$ 600	$ 2,000	$ 2,000	$ 2,000	$ 2,000											$ 8,600
TOTAL	$ 3,300	$ 3,100	$ 2,800	$ 2,000	$ 2,000	$ 2,000											$ 15,200
(I/I Reduction Program)																	
1. Sewer System Evaluation Survey	$ -	$ 850	$ 650	$ 650	$ 650	$ 850	$ 850	$ -	$ -	$ -							$ 3,900
2. Sewer Rehabilitation Program	$ -	$ -	$ 2,000	$ 2,000	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 2,000	$ 1,000							$ 19,000
TOTAL	$ -	$ 850	$ 2,850	$ 2,650	$ 3,650	$ 3,850	$ 3,850	$ 3,000	$ 2,000	$ 1,000							$ 22,900
(CSO Abatement Program)																	
1. Columbus, Parkside & Maumee Reduct.	$ -	$ 250	$ 3,000	$ 1,500	$ 1,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,750
2. Ottawa River CSOs - Phase 1	$ -	$ 250	$ 250	$ 5,000	$ 8,000	$ 7,000	$ 5,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,500
3. Ottawa River CSOs - Phase 2	$ -	$ -	$ -	$ -	$ -	$ 250	$ 2,000	$ 5,000	$ 3,250	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,500
4. Wt. Side Maumee (CSOs # 32 & 33)	$ -	$ -	$ -	$ -	$ -	$ -	$ 500	$ 3,000	$ 4,000	$ 2,500	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,000
5. Wt. Side Maumee (CSOs # 23 to 26)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500	$ 6,000	$15,000	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ 30,500
6. Downtown Tunnel (CSO 152) Upgrade	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500	$ 2,000	$ 5,000	$ 2,000	$ -	$ -	$ -	$ -	$ 9,500
6. E.Side Maumee River (CSOs # 7 to 9)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,000	$ 15,000	$30,000	$20,000	$ -	$ -	$ -	$ 70,000
7. E.Side Maumee River (CSOs # 4 to 6)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,000	$10,000	$20,000	$17,000	$ -	$ 50,000
8. Swan Creek Tunnels Upgrade	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000	$ 5,000	$10,000	$ 8,000	$ 25,000
TOTAL	$ -	$ 500	$ 3,250	$ 6,500	$ 9,000	$ 7,250	$ 7,500	$ 9,500	$13,750	$24,500	$28,000	$35,000	$31,000	$25,000	$27,000	$ 8,000	$ 238,750
TOTAL COST SUMMARY	$ 12,430	$ 30,380	$ 39,200	$ 56,000	$ 57,800	$48,750	$17,150	$17,500	$16,750	$25,500	$28,000	$35,000	$31,000	$25,000	$27,000	$ 8,000	$ 472,480

ATTACHMENT TO COMMENTS BY DONALD M. MOLINE

PROJECT DESCRIPTIONS

1. EAST SIDE AND BAYVIEW PUMP STATION RENOVATIONS

These improvements involve the renovation of the East Side Pump Station (ESPS) and the Bay View Pump Station (BVPS). The majority of the work is structural and mechanical. The work will include the renovation of the vacuum priming systems at both pump stations, new windows and doors, new discharge valves on the raw sewage pumps 1, 3 and 4 at the ESPS and at all 5 pumps at the BVPS, new HVAC at both stations, new fencing and repair of the roadway at the ESPS.

The floor drain system at each pump station will be reconfigured so that they are separate from the wet well. Flow meters will be added for pumps 1 and 6 at each station. The vacuum pumps, discharge valves and flow meters will be automated and integrated with the plant's control system. The existing gas detection systems will be upgraded and alarms will be sent to the CO Building.

2. WINDERMERE PUMP STATION RENOVATION

This project involves the Windermere Pump Station (WPS). The work of this project includes the replacement of the two bars screens and conveyor system as well as the wet well dewatering pumps. The #2 and #3 raw sewage pump VFD's will also be replaced. The new VFD's will be able to communicate with the plant's PLC system using remote I/O. The two existing VFD's will be similarly configured. FPS will investigate the condition of all 4 raw sewage pumps and motors and recommend corrective action.

The existing generator control panel will be replaced with a new panel equipped with automatic start and loading features. Renovation of the HVAC system, doors, windows and fencing will also be required. The hydraulic system will be renovated. The PLC and the telemetry system, the lighting system and the security system will be upgraded. Finally, the project will include the replacement of the existing flowmeter and installation of new gas detection system.

3. BACK UP POWER FOR SECONDARY AND BLOWER REPLACEMENT

The back up power system should be able to supply all of the power required to operate the plant in a stand alone mode and peak shave. This project will also provide additional air blowers to increase the air supply capacity by 100,000 SCFM for the biological treatment process.

This project will require the successful bidder to perform the engineering services and provide an overall plan for the project to provide electrical power to include: Electrical switching and distribution network, generation equipment with duel fuel ability, electrical substations, power transmission requirements, new air blowers, examination of air delivery system, removal of existing diesel engines and structural analysis of ME building to house the new equipment.

4. EQUALIZATION BASIN

The Consultant will design an equalization basin with a minimum capacity of 60 million gallons. The basin will be located either at the Harrison Marina site, on the golf course adjacent to the Bay View plant, or other feasible location. The basin will be designed to capture and store, during storm events, additional wastewater above and beyond the capacity of the existing plant for treatment at the wastewater plant once flow to the plant is reduced. The basin is expected to be utilized between 10 and 30 times a year. The rest of the year the basin will remain empty.

The equalization basin, actually a set of basins or tanks, shall be constructed of suitable material and shall have multiple dividers and gates with options to vary the basin size or number of individual basins or tanks to be used. Isolation gates, large valves, drainage pumps, feed pumps and weirs will be used to facilitate filling and draining of the individual basins. The Consultant will provide a basin or tank cleaning system to flush the solid content of the wastewater remaining after it is drained. This system must be maintenance free, automated and integrated with the plant's control system.

When selecting materials for the basin, special design consideration shall be made for corrosion control. The basin will be filled and emptied often, providing the concrete with much exposure to corrosion and freeze thaw cycles. Gates, weirs, and other equipment shall be made of corrosion resistant materials or painted with corrosion resistant coatings.

The Consultant will review the existing pumping capacity of Bay View, East Side and Windermere pumping stations, preliminary treatment facilities, elevations of the existing main interceptors and force mains coming into the plant, and make a recommendation for improvements needed to fill and drain the equalization basin. The consultant shall look at and develop the most feasible method for additional preliminary treatment facilities which must be maintenance free, automated and integrated with the plant's control system.

Odor control must be included. A life cycle cost study will be performed on all odor control options proposed by the Consultant. These options will include, but not be limited to, pre-aeration, chemical addition, odor retention basin, mixing systems, dry and liquid scrubbers. The facility must be maintenance free, automated and integrated with the plant's control system.

The Consultant will investigate and make recommendations on a back-up power system for the equalization basin complex. The Consultant will perform a life cycle analysis on all options. This system will be integrated with the plant's existing and planned back-up power systems. The system must be capable of an automatic start and loading sequence and an uninterruptable return to utility power upon command from the plant's computer control system.

This project includes the preparation of a 401 and 404 permit for the Ohio EPA and Army Corps of Engineers should the project be located at the Harrison Marina site. The permits will include mitigation of lost water surface, sediment sampling, sediment characterization and the design of a retaining wall at the river.

Title work and appraisal of the properties associated with the Harrison Marina location have been ordered by the City. All other work to be performed by the Consultant.

5. SECONDARY CLARIFERS

The Consultant will design a new final tank designated as final tank #13. The final tank will be located next to final tank #12 and will be the same size and configuration. This project will be designed to increase the firm capacity of the final clarifiers from 170 MGD to 195 MGD.

This new final tank will be filled and emptied often, providing the concrete with much exposure to corrosion and freeze thaw cycles. The final tank will normally be put on-line during storm events or when other final tanks are out of service for maintenance. During dry weather flows the final tank will be empty.

This project will include the addition of one new sludge withdrawal pump and flow meter identical to the existing pumps and two new mixed liquor feed pumps. The new sludge withdrawal pump will be located in the Sludge Withdrawal Pump Station (SWPS). The pump will have its own variable frequency drive (VFD) and will be automated and integrated with the plant's control system. The VFD will be located in the SWPS. Power for the VFD, pump and flow meter can be taken from Power Panel 4 or the lightning panel located in the SWPS.

Flow is provided to final tank #12 using four low head high capacity pumps. The Consultant must design two new wet wells, cross over piping and flow meters for each of the two new mixed liquor pumps. Each pump will have its own variable frequency drive (VFD) and will be automated and integrated with the plant's control system. The VFD's will be located in Gallery Building #3. Power for the VFD's, pumps and flow meters can be taken from Power Panel 3 or the lightning panel located there.

A splitter box to control flow to each final tank will be needed along with all process and drainage piping, valves and tank controls. The new tank will be automated and integrated with the plant's control system.

The Consultant will design a new secondary diversion chamber to replace the existing diversion chamber. This chamber allows flow to be diverted from the swirl concentrators to the aeration tanks. This diversion chamber will be designed for a firm capacity of 25 MGD with consideration being taken for future expansion. This chamber will include a flow monitoring device.

The Consultant shall investigate and develop the most feasible method to provide flow to the diversion chamber then to the aeration tanks. The chamber and all associated equipment must be maintenance free, automated and integrated with the plant's control system.

6. BALLASTED FLOCCULATION FACILITY

The Consultant will plan and conduct a 12-month pilot study of the ballasted flocculation process. This will be done, if possible, with a truck mounted test facility. From these results, the Consultant will size the facility and begin design. The design of the facility will last for an additional 9 months. The study will also include

various disinfection alternatives including the use of ultraviolet light or sodium hypochlorite at the end of the wet weather system.

The Consultant will design a wet weather treatment facility (WWTF) composed of a ballasted flocculation process sized to handle a firm capacity of 185 MGD of raw combined sewage. This facility will come on line when the plant flow exceeds the 195 MGD and the equalization basin is full or when the plant flow exceeds 195 MGD and the pumping capacity to the equalization basin is exceeded. This facility will be housed in its own building and will be located at the mooring basin site. This facility and all associated equipment must be maintenance free, automated (if possible) and integrated with the plant's control system.

The WWTF will include a final effluent pump station with a firm capacity of 195 MGD. This station will be used when the river level rises and interferes with the plant's ability to discharge effluent. The plant effluent flow and the wet weather treatment facility flow must be sampled separately, recombined and sampled prior to discharging to the river. Post aeration for the combined flows must maintain an effluent DO of 5 mg/l. The Consultant will determine, using life cycle costs, the most economical pumping configuration and post-aeration option. The pump station, aeration system and all associated equipment must be maintenance free, automated and integrated with the plant's control system.

A new disinfection process for the wet weather flows will be designed based on the results of the pilot study. The Consultant will consider a new disinfection process sized to handle the plant's effluent flow along with the wet weather flow. A life cycle cost analysis will be performed on the disinfection alternatives. All necessary piping, pumps, controls, chemical feed systems, contact tanks and buildings will be included under this project. The disinfection system and all associated equipment must be maintenance free, automated and integrated with the plant's control system.

The Consultant will review the existing pumping capacity and preliminary treatment facilities and make a recommendation for improvements needed to provide flow to the wet weather treatment facility. If necessary, the Consultant will perform life-cycle cost studies on various preliminary treatment and pumping alternatives. All pumping systems, preliminary treatment systems and all associated equipment must be maintenance free, automated and integrated with the plant's control system.

Once the project is complete, the Consultant will perform a 2-year full scale study titled the "allasted Flocculation Study."

7. GRIT AND SKIMMING TANK SEPARATION

The main objectives of I–45 are to separate the plant's two skimming tanks into four independent skimming tanks/grit tank process trains. A cross channel complete with motorized slide gates will be installed to allow any of the grit tanks to be routed through any skimming tanks when other tanks are off line for repairs. The inlet gates to the existing grit tanks are being replaced.

New skimming equipment will be installed in each of the skimming tanks along with an automated tipping tube. The primary clarifier scum collection system is being converted back to a gravity drain system that will discharge into a scum pit located outside of the pre-air building. Two scum chopper pumps will transfer the scum to the grease concentrators. New air flow meters and valve actuators will be installed on the air lines. A drainage pump station will be constructed in the existing scum ejector pit to pumps located in the basement of the pre-air building. This pump station will be used to dewater the primary clarifier for maintenance.

The skimming tank collector mechanism, tipping tube and motorized gates will be automated and controlled through the plant's control system.

Reference OEPA permit to install 03–12308.

8. IMPROVEMENTS TO CSO'S

Columbus CSO

The sanitary area from Manhattan Blvd. south to Forest Cemetery and from Chestnut Street east to Counter Street is served by a predominately separate sanitary sewer system, which drains into the combined sewers east of Michigan Avenue on Columbus Street.

Drainage from the sanitary and combined sewer systems travels to a 102" sewer located in Columbus Street and on to a regulator located east of the intersection of Columbus and Summit Streets. A 36" sewer, which carries flow from a combined sewer area bounded by Summit, Chicago, Ontario, and Troy Streets is believed to connect to the 102" sewer just west of Summit Street. Storm overflows exit the regulator through a 102" pipe and discharge into the Maumee River. A 24" diameter re-

turn line carries dry weather flows from the regulator to an 87" sanitary interceptor located on the east side of Summit Street.

The sanitary drainage for the Columbus Street regulator is estimated to be 676 acres. The storm drainage is estimated to be 205 acres. Separation of the sanitary sewer flow from the combined sewer is expected to result in overflow reduction.

The Columbus Street CSO Optimization Project includes verifying pipe configuration, smoke and dye testing, recommendations to separate public sources of inflow, look at separation of sewers and design improvements.

Parkside CSO

The Parkside CSO project is primarily concerned with the area around Calvary Cemetery which is served by separate sanitary sewer system. This area is located near the Upton and Bancroft as well as the Upton and Door intersections. The system in this area does overflow to the combined sewer system at Ottawa River and Monroe Street. The area serves approximately 600 acres of sanitary sewers.

The basic purpose of this project is to minimize inflow in this area, monitor the flow rate to ensure the inflow is minimized and then construct the required sanitary sewers to divert their flows directly to the interceptor.

This project has not been designed yet and it will be the responsibility of the Consultant to examine the area in detail and develop the project.

Maumee CSO

This CSO is located at Maumee Avenue and Orchard Street in South Toledo. This project has not been designed yet. The basic objective of this project is to reduce the overflow from this structure.

The return sewer line from this regulator is a 5,880 ft. long 18" diameter sewer with a slope of 0.25 percent. Overflows from this regulator occur at lower rainfall levels than other regulators which service similar acreage. The overflows could be caused by flow restrictions such as sedimentation buildup, plugging by debris or excessive headloss. The exact cause needs to determined and corrected.

9. ELIMINATION OF SSO'S IN POINT PLACE

The Director Findings and Orders from the Ohio EPA set forth the time schedule under which the city of Toledo must eliminate the SSO's that are in Point Place. This project is underway and to date, the city of Toledo has been able to meet all of the specified deadlines.

The project is divided into phases with a phase 1 completion date of January 2001. In this phase, the city of Toledo was to do intensive sewer cleaning and correct the deficiencies in the 116th Street interceptor as well as construct a relief pump station at Manhattan Boulevard. Phase 2 remediation will examine the results of the phase 1 investigations and suggest alternatives for corrective action along with the costs. A detailed plan for corrective construction will be submitted to OEPA for applicable permits by June 2003. Phase 2 improvements must be complete by November 1, 2006.

Another part of phase 2 is the River Road SSES work referenced below.

10. SSES IN RIVER ROAD AND MIDLAND AREA

This part of the SSO elimination project is centered on an area in South Toledo. The first phase of the project involves smoke testing and televising the sanitary sewers in this area. This portion of the project is currently underway. Phase 2 involves the collection of data, analyzing it and making recommendations to eliminate SSO. Phase 3 of the River Road project will be submission of plans and the construction of the remediation efforts by June 1, 2004. Phase 4 is a placeholder if the Phase 3 efforts need additional improvement. The final construction must be complete by November 1, 2006.

11. CSO SYSTEM WORK

This portion of the work involves implementing the results of a 2-year collection system study to meet the objectives of the U.S. EPA Combined Sewer Overflow Policy. The team will be required to first establish a Long Term Control Plan (LTCP) that addresses or considers the results of all of the studies listed herein and minimizes the overflows from the CSO's. This LTCP will take into consideration the characterization of the collection system through monitoring and modeling to achieve a through understanding of the sewer system, the response of the system to rain events, the characteristics of the overflows and the water quality impacts that result from CSO's. Many of the studies that we are asking the engineering

teams to undertake speak directly to this goal. The LTCP must also address the issues of the nine minimum control standards for CSO's put forth by the U.S. EPA.

Currently, the city of Toledo has combined sewers that serve approximately 17,600 acres. Three interceptor sewers collect dry weather flow from combined sewers at the regulator chambers. Wet weather combined flows discharge to the Maumee River, Ottawa River or Swan Creek at 31regulator overflow locations.

Extensive improvements to the collection system have included both major and minor projects resulting in the overall reduction of combined sewer overflows. The major projects with significant impact on overflow reduction include: the Ten Mile Creek Relief Interceptor, Windemere Pump Station, Swirl Concentrators, combined sewer outfall tide gates and regulator modifications.

The construction and activation of three independent CSO Abatement Pipeline Storage Tunnels are the most significant actions taken by the City to improve water quality of the Maumee River along with downtown waterfront area and of Swan Creek along the CSO reach.

12. TWO-YEAR STUDY OF BALLASTED FLOCCULATION

The purpose of the 2-year study is to establish the daily operating parameters and effectiveness of the new facility. In setting up the study, the Consultant will consider the manufacturers operating recommendations and use them as a reference point. The Consultant shall develop appropriate scientific mechanisms such that the data developed from this study will be valid in establishing the operating range of the facility. The Consultant will also establish the range of flows that can be properly treated in the facility.

The Consultant shall, 12 months after the start of our contract, submit to the U.S. EPA a work plan for the testing of this facility. The plan shall include, but not be limited to (a.) the effectiveness of the facility to remove suspended solids, carbonaceous biochemical oxygen demand, total Kjeldahl nitrogen (TKN) and ammonia (b.) any difficulties encountered in or limitations involved with using these facilities over a range of flow conditions, chemical feed rates and other operational control parameters and (c.) measures that Toledo has taken to optimize the use of the facility.

After the study is complete, the Consultant will complete a written report that will be submitted to the U.S. EPA within 60 days after proper consultation with the City.

13. FLOW CHARACTERIZATION STUDY

The flow characterization study is fully explained on pages 15 through 18 of the attached draft consent decree. The Consultant is advised to take note of the time requirements for (a.) the work plan within 30 days of our contract (b.) the one year time period for data collection and (c.) the requirement for the report within 30 days following the completion of the study.

The city of Toledo has installed flow-monitoring devices and has collected data regarding the amount of wastewater in the system during rain events. It is the responsibility of the Consultant, to review this information and determine the usefulness of this data and determine what additional data will need to be collected. The current data will be available for inspection at the Division of Water Reclamation.

14. WATER QUALITY STUDY AND MODEL

The city of Toledo, in conjunction with Limno-Tech, Inc. has already performed an extensive water quality study. This will form the basis of the work described in the draft consent decree on pages 18 through 21. The major new area of investigation will be sediment oxygen demand and its relationship to dissolved oxygen in Swan Creek and the Ottawa River.

The Consultant will be required to closely review the previous work and coordinate the new investigations such that a comprehensive water quality report is obtained. The Consultant will also develop the proper water quality model after extensive impute from City representatives and consistent with the directions listed on pages 24–25 of the draft consent decree.

Here again, the Consultant is reminded to check the timeframes and report requirements.

An Executive Summary of the water quality report is attached. A complete copy of the report is available at the Division of Water Reclamation.

15. HYDRAULIC MODEL

The Consultant will develop a hydraulic model of the collection system to be used in all phases of the evaluation of the system and the handling of wet weather flows. The detailed information of the requirements of the study are listed on pages 22–24 of the draft consent decree.

The Consultant will use the information developed in the flow characterization study as a basis for this model. To that end, the city of Toledo has some background information available for inspection at the Division of Water Reclamation.

16. LONG TERM CONTROL PLAN

The Long Term Control Plan seeks to integrate the various plans and models into one single document that addresses the reduction of flows from our CSO outfalls in order to comply with the CSO policy. The pertinent characterization of this document is found in the draft consent decree pages 25–31. It is the item which receives the most description in this document and is important to the city of Toledo as well as the U.S. EPA.

The studies that are being performed as part of this work can be characterized as informational research. The flow characterization, water quality study and hydraulic models provide the informational basis upon which design and implementation can proceed. Once the information collection phase has been complete, the consultant will begin to evaluate the alternatives. This will require the engineering teams to concentrate their expertise to suggest the most effective yet most economical solution.

Following the conceptual design phase, there will be a review procedure and then detailed design. This design will require the integration of all of the talents of the entire team as well as the city of Toledo's efforts to produce an acceptable product.

Construction of the remedy of the sewer system will be completed in the second half of the project. At present, it is unclear what type of work or engineering will be necessary. It is, therefore, impossible for the Consultant to provide a price for these services. The city of Toledo has included, in this proposal, a mechanism for a price re-opener once the 2-year study is complete (see CSO System Work). It is, however, possible for the Consultant to provide a price for the 2 year LTCP study.

17. PUBLIC PARTICIPATION PLAN

This is an aspect of the project that must not be overlooked. The development of a clear, concise communication mechanism could be the difference between acceptance and rejection of the project. The Consultant will be required to formulate a public relations plan that can effectively communicate the engineering ideas to the city of Toledo, the regulator agencies and the general public. It is in this area that the Consultant and the City must work especially close to provide a clear vision of the project.

In the draft consent decree there is a requirement that this public involvement be active during the planning and formulation of the LTCP. We believe that it is important to have this aspect functioning throughout the entire project.

The public relations efforts of this project will have as its fundamental charge the duty to explain to the public the benefits derived from the improvements being installed in the wastewater system. Large expenditures of public funds will be used to build the improvements and it is critical that we are able to explain how the environment will be improved.

The Consultant is instructed to present, with their proposal, a summary of this plan.

18. SEWER SYSTEM MONITORING AND REPORTING PLAN

This section will involve a timely reporting of any SSD to a body of water to the Ohio EPA. A reporting mechanism will need to be developed such that all of the pertinent information is recorded and conveyed to Ohio EPA.

This work will also involve a record keeping function during wet weather times and the responses that the Division of Sewers and Ditch Drainage provide to residential customers.

The details of the content of the Sewer monitoring can be found in the draft consent decree on pages 35–36.

19. SANITARY SEWER DISCHARGE RESPONSE PLAN

This work requires the consultant to develop a plan that will identify and establish procedures to handle any sanitary sewer discharges with the appropriate public notice. This plan will also include the provisions for limited access to the area, reme-

diation if necessary, contingency plan for emergency response and dispatch of city personnel.

A summary of this work can be found in the draft consent decree on pages 36–38.

20. SANITARY SEWER O & M PLAN

This work entails the creation of a management, operation and maintenance ("MOM") plan for the collection system. The city of Toledo has clearly defined rules and procedures although most of these have never been collected in a single document. The Consultant will be required to work with the Division of Sewers and Ditch Drainage to compile and create the necessary document. It is expected that the Consultant can draw upon past experience to create this document.

This plan will include, but not be limited to, all aspects of the collection system operation including cleaning, televising, inspecting, corrective maintenance, information tracking, maintenance schedules and pump station inspections.

The summary of the elements of the plan are to be found on pages 38–42.

21. WWTP O & M PLAN

The Division of Water Reclamation does have an existing O & M plan that is current and does fulfill most of the provisions of this requirement. The Consultant will need to review these plans and determine if additional work will be necessary to comply with the outline provided in the draft consent decree on pages 42–43.

There are a number of anticipated changes such as a wet weather facility that are not part of our current plant and will need to be added as they are constructed. It will be the responsibility of the Consultant to continually update both the WWTP O&M plan and the Sewer System O & M plan as new processes or change are made.

22. WORK PLANS

The draft consent decree has listed in a number of the tasks, a work plan due within 30 days of the entering of the consent decree. A great deal of discussion was undertaken to describe the nature of these plans and detail necessary to comply with their submission. The U.S. EPA indicated that these plans were to be approximately two pages in length and are to outline the approximate timeframes and critical path issues to be followed. They are not a preliminary design nor are they expected to be done in a significant level of detail. They will, however, need to document a course of action that the U.S. EPA can follow.

23. INDUSTRIAL WASTEWATER RELEASE MINIMIZATION PLAN

This work entails the review of our pre-treatment plan to ensure that we are minimizing the discharge of industrial pollutants through CSO's and SSD's. The current pre-treatment program is active and should provide most of this information. The Consultant can review this program at the Division of Environmental Services. A brief summary of the requirements is contained in the draft consent decree on page 38.

STATEMENT OF PATRICK T. KARNEY, P.E., DEE, DIRECTOR, METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI, CINCINNATI, OH

Chairman Crapo, Senator Voinovich, on behalf of the 650 environmental professionals of the Metropolitan Sewer District of Greater Cincinnati and the 800,000 Hamilton County users of our utility I want to thank you for providing this opportunity to address your committee on this rising crisis.

NATIONAL HISTORY OF WATER POLLUTION ABATEMENT ACTIVITIES

When our country was young and still made up of vast wilderness, waste disposal was a very simple matter—nature would take care of it with very little help. As our population grew, and our ability to produce larger and larger quantities of wastes increased nature's solutions began to become overwhelmed. The resulting pollution of our environment drove America, and the developing world to institute increasingly complex methods of wastewater collection and treatment. Wastewater infrastructure—underground sewer systems and wastewater treatment plants—was invented, implemented and continuously refined to answer the ever-growing need for protection of public health and the environment.

National water pollution abatement law was not developed until a century after founding of our country with 1878 passage of the Ports and Harbors Act. Followup to this legislation did not appear for another century with Public Law 92–500, the

Clean Water Act being passed in 1972. Prior to early 1900's, wastewater disposal was basically addressed by either forcing it into the ground (privies or outhouses), or moving the waste to the nearest water body, be it a stream, river or lake. Treatment of the waste was left to nature. And nature did an acceptable job until civilization's capacity to generate wastes exceeded nature's ability to treat it.

Water pollution abatement is a relatively modern innovation, with many of our large U.S. cities not constructing their first major treatment works until the 1950's or 60's. As treatment facilities moved from rudimental, primary treatment process to the more refined secondary treatment processes during the 70's and 80's, regulatory emphasis began to turn to deficiencies in the collection systems (underground piping). That movement was more strongly pursued as the 1990-decade progressed with the publication of the USEPA's CSO Policy in 1994. SSO issues continue to evade our grasp, especially given the incredible financial impact that is becoming apparent.

CINCINNATI/HAMILTON COUNTY HISTORY

Cincinnati and Hamilton County, Ohio's experience closely parallels that of the Nation. Our collection system has origins in the early 1800's, with the installation of drainage systems to remove rainwater from developed neighborhoods and the business district. Shortly thereafter, the cesspool crisis was addressed by collecting individual building waste streams, connecting them to the existing stormwater system and conveying this combined flow to the nearest stream (this marked the beginning of Hamilton County's combined sewer system). As the smaller stream's assimilative capacity was surpassed and the degree of localized pollution could no longer be tolerated, those waste flows were intercepted and conveyed to larger streams and to the Ohio River.

By the 1940's discharge of sanitary wastes into the Ohio River became intolerable, and designs were prepared for the construction of regional wastewater treatment plants. Underground pipes were redirected to the first of these plants in 1953. This is clear testimony to the fact that the water pollution control industry is not that old. The interceptor sewers which captured the old stream/river discharges were designed to convey the sanitary flow and a portion of the stormwater, with constructed regulators to discharge excess combined flow to local streams and the Ohio River (CSOs).

Soon design approaches changed through the Nation, with Hamilton County following suit—combined sewer systems were no longer the design of choice; separate sanitary and storm networks were installed to prevent the co-mingling of sanitary and storm waters in newly developing areas. As more and more development occurred in the separate sewer areas, and additional sources of sanitary sewage were connected to the existing collection network, the older portions of the sanitary system became overwhelmed. Localized wastewater back-ups occurred on an increasingly frequent basis. Resolution of these health hazards was economically arrived at by the installation of collection system relief lines (Sanitary Overflows)—these were logically planned and installed using conventionally accepted engineering methods. Little did the engineers and elected officials of the day realize they were constructing an incredible liability for future generations.

Primary treatment plants were upgraded to secondary processes as the 70's turned into the 80's. Then in the late 80's, following massive investment in its water reclamation plants and reflecting a change in national emphasis, Cincinnati turned its attention to another aspect of the problem—that unseen and often forgotten underground maze of pipes known as the wastewater collection system. The much heralded site-specific solutions of less than a generation earlier, the overflow relief structures, had descended the environmental scale to a status of environmental detriments.

Beginning in 1987, the Metropolitan Sewer District of Greater Cincinnati initiated countywide studies aimed at finding solutions for CSOs. Over the past decade that work has translated into not only system capacity increases and constructed solutions, but has further expanded into issues involving SSOs. Cincinnati's efforts have mirrored, and often led, national regulatory development aimed at curing the problems inherited from past generations.

ESTIMATED FINANCIAL IMPACT OF CURRENT/PROPOSED REGULATIONS (NOT INCLUDING NATIONAL NUTRIENT REMOVAL OR TMDL-IMPOSED STANDARDS)

Early in 2000, the Metropolitan Sewer District of Greater Cincinnati performed an in-house estimate of the costs involved in addressing its current collection system needs. The resulting figures were so staggering that District management elected to engage a consulting engineering firm to perform an independent analysis of the

needs. Given some unknowns with respect to developing national regulations, a single number could not be reliably arrived at. The fact that the two studies (one internal and one external) came to very similar conclusions provides a very 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 billion and $3 billion.

USER CHARGE IMPLICATIONS

Current Charges

At the present time the user charges in affect for MSD are right in the middle of those for the surrounding 67 utilities.

Projection of Increases

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—$1 billion of design and construction. This would multiply the existing rate by nearly threefold (276 percent). Taking a more conservative view of how the pending SSO regulations might final impact the utility, the cost would 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 17 times (1,750 percent).

National nutrient standards and TMDL-related limitations would impose an even greater financial burden upon the Cincinnati/Hamilton County ratepayers. Their impact is not definitively quantifiable, but could easily approach upwards to an additional $1 billion. That would place the utility in a position of having to raise $4 billion, with a forty-five-fold increase being imposed upon the residents (4,526 percent) over 15 years.

ISN'T IT TIME FOR USERS TO PAY THE FULL COST OF SERVICE

The Metropolitan Sewer District of Greater Cincinnati's ratepayers have been paying the full cost of service since 1968. As with nearly all other major wastewater utilities, MSD is a stand-alone enterprise that does not receive subsidies from other governmental units via property tax contribution or payments whose source is a different taxing authority. Hamilton County ratepayers do know the true cost of wastewater collection and treatment—they see it every quarter in the bill mailed to their homes and businesses.

The local burden is already rising. In 2000, the Metropolitan Sewer District of Greater Cincinnati's rates were increased by 9.5 percent. In 2001, Hamilton County enacted another MSD rate increase of 7 percent. Further, the County Commissioners are prepared to consider another 7 percent rate hike in 2002. Our local elected officials and utility managers are stepping up to the plate and making tough decisions about paying the cost of protecting public health and the environment.

AVOIDING THESE COSTS

What if these horrendous costs are not incurred? What will happen?

- USEPA will begin imposing fines upon Hamilton County.
- Moneys that might have been spent improving environmental quality and protecting public health, will then go directly to the Federal Government.
- The Department of Justice will intervene and initiate civil and criminal proceedings against local jurisdictions and officials for violation of the Clean Water Act.
- Concerns about environmental degradation will go unaddressed.

Thus, these huge expenditures cannot be avoided.

LOCAL FUNDING WITHOUT FEDERAL ASSISTANCE

The rate increases noted above would begin. Within a few years the rates would increase dramatically and the results would be:

- Economic distress on the entire County.
- Extreme hardship visited upon those most unable to pay (environmental equity).
- Loss of jobs and commerce due to competitive pressures from other localities.
- Loss of population.
- Spiraling utility revenue loses, in spite of increased rates, reducing usage and billability of the customer base, driving rates higher than originally anticipated, further decrease use and pushing revenues even lower . . .

CINCINNATI/HAMILTON COUNTY IS NOT ALONE

Cincinnati/Hamilton County are not alone in facing a financial need of crisis-proportions. Every older Northeast and Midwest city has aging infrastructure and the challenge of eliminating CSOs and SSOs. Throughout the United States, all major cities, even those without combined sewers, are trying to cope with increasing rehabilitation needs. As with Cincinnati these other communities are coming to the realization that their future costs are far in excess of their ability to pay. Adding the expectation of ever tightening regulations only further frustrates their attempts at coming to grips with the situation.

Clearly this is not simply a local or even regional problem. Every major, as well as medium and small communities, are subject to water and wastewater infrastructure demands.

NEED FOR RELIEF ON A NATIONAL BASIS

Elected officials and residents of Hamilton County alike can easily agree upon one point—local efforts are not enough to address this growing infrastructure need. The impact of not only maintaining the underground system of collection pipes dating back to the early 1800's, but also contending with ever tightening regulatory mandates is staggering. For years this infrastructure has been, "out of sight, out of mind." But that is no longer the case.

Local utility managers have been feeling the growing pressure to plan for future needs for some time, but it has not been until recently that an effort has been undertaken to raise the national consciousness. Why the delay? The size of the problem was not quantified earlier. We, and our predecessors, knew it was quite large, and there were other day-to-day problems we had to contend with. Then as we began to get a feel for the actual numbers, they were so massive that very few of us were willing to even mention them, much less engage a national debate how to proceed.

Today we have a much better feel for what is required, and are searching for a solution. The American people can no longer avoid the growing crisis. Elected officials on the local level are beginning to feel the crunch. Individual homeowners and businesses are being affected. Local governments are facing a growing shadow of financial doom.

The need is nationwide. The magnitude of the problem is of national proportion. Citizens and local officials must have relief, and the only source for relief of this magnitude is the Federal Government.

WIN PROPOSAL

The time has come to once again make water infrastructure funding a national priority. On a national basis it has been estimated a $23 billion per year funding gap exists between current local investment in water and wastewater infrastructure and what is needed over the next 20 years to replace aging and failing pipes and meet Clean Water Act and Safe Drinking Water Act mandates.

The environmental gains made by the water and wastewater community over the past thirty years are impressive, but they are in jeopardy. According to the U.S. Environmental Protection Agency, the Nation will lose a generation of water quality progress without significant new investment in water and wastewater infrastructure. Recently, more than a million consumers in California were plunged into darkness as the nation's energy crisis deepened. Imagine what would happen if the nation's water and wastewater systems began to fail. Could we ask our citizens to tolerate untreated or unsafe water? I think not. Failure of wastewater systems could create a public health emergency, cause widespread environmental degradation, and lead to an erosion of our local economies.

The $23 billion gap is documented in two reports released by the Water Infrastructure Network (WIN), most recently in February's *Water Infrastructure Now: Recommendations for Clean and Safe Water in the 21st Century (WINow)*, which has been endorsed by over 30 nationally recognized organizations. The WINow report makes specific recommendations on bridging the infrastructure funding gap through a renewed Federal commitment to the nation's municipalities. By authorizing an average of $11.5 billion per year in capitalization funds over the next 5 years, the Federal Government will provide States with the necessary funds to offer grants and loans to local water and wastewater agencies for repairs and replacement of aging infrastructure.

CALL TO ACTION

It is our hope that this attempt to articulate the problem will lead Congress and the Administration to begin the lengthy process of coming to the assistance of local communities throughout the country. If we can answer any questions or provide additional information in the future to assist you in taking action, please feel free to ask. Utilities throughout America are prepared to answer your calls.

Senator Voinovich, on behalf of wastewater utilities nationwide I would like to thank you for your recent initiative aimed at re-energizing the nation's State revolving fund program. Such leadership is what is needed to bring us all to grips with the funding crisis facing our water infrastructure, and threatening our citizens.

Thank you, again, for this opportunity to provide insight into this financial crisis that is facing our entire country.

STATEMENT OF PATRICK D. GSELLMAN, P.E., MANAGER, ENVIRONMENTAL DIVISION, AKRON ENGINEERING BUREAU, AKRON, OH

SUMMARY OF ISSUES—AKRON, OH

Akron, OH is located on the Cuyahoga River, in northeast Ohio, approximately 30 miles upstream from the city of Cleveland. The Akron wastewater planning area covers approximately 167 square miles and includes most of the Akron metropolitan area. There is a population of 352,000 in the service area and includes all or a portion of 5 cities, 4 villages and 7 townships.

The sewer system includes approximately 1,165 miles of sewers consisting of 188 miles of combined sewers. There are 38 combined sewer overflows (CSO) within the city of Akron. Based on predictions from the hydraulic model typical annual CSO volume is 2,440 million gallons. Previous efforts by the city of Akron have resulted in the elimination of sanitary sewer overflows (SSO) in the city of Akron and the award of the Association of Metropolitan Sewer Association's (AMSA) gold award for no effluent violations in 2000.

The city of Akron has proposed a Long Term Control Plan that will cost more than $248,000,000 to implement. This cost is in addition to the millions Akron has already spent to date to study, address and reduce CSO's, and the $25 million spent to eliminate SSOs. Akron has seen a significant decline in its industrial base since the 1960's, requiring the residential users to carry the burden. Akron already carries one of the highest residential sewer rates in the State for communities of similar population.

The Akron Public Utilities Bureau is undergoing significant changes as result of the high water rates. The rates led to a Blue Ribbon Panel to study the Utility and the current Competitive Action Program. This program includes the water treatment facility, sewer maintenance, Water Pollution Control Station and Utilities Engineering. Significant reductions in operation costs are being realized and will allow the Utility to be competitive in the future. This will allow for the City to pay its fair share of needed improvements as long as the Federal Government contributes its fair share.

As part of developing Akron's Long Term Control Plan, several options to fund the projects were evaluated. Given the significant total cost of these projects, it is likely that funds will have to be obtained from multiple sources, i.e. grants, low interest loans and revenues obtained by sewer rates. Grants are essential to the fundability and feasibility of the program. Without outside funding, sewer rates will more than double due just to the CSO program. The impact of additional operation and maintenance costs, system repair and replacement and normal inflation will likely see the rates triple. Current monthly sewer charges for a typical residential customer are approximately $30.00 per month for sewer only. The rate increases to $60.00 or $90.00 per month will adversely affect a significant portion of ratepayers, including those who can barely afford their current utility bills.

The selected alternative for the city of Akron Integrated Plan incorporates storage conveyance tunnels, detention basins, treatment basins and sewer separations. A set of rating criteria was used to compare various alternatives. The criteria included storm water impacts, water quality improvements, operation and maintenance costs, public acceptance, community improvements and construction issues. The approach taken with the Long Term Control Plan (LTCP) was the "presumptive" approach. The annual percent capture after the LTCP is 94 percent.

In addition to the funding, the issues of wet weather standards, use designation and urban stream habitat need to be addressed.

Wet Weather Standards.—The current water quality standards do not (nor were they intended to) address wet weather events. Re-evaluation of water quality standards for wet weather is needed on a State and Federal level.

Use Designations.—Reasonable and sincere re-evaluation of "use designations" has not been conducted by the State agencies as allowed by the CSO Guidance. EPA has reported that they do not have adequate funding to re-evaluate these requests, yet they expect local POTWs to expend hundreds of millions of dollars on CSO controls. A fair re-evaluation of a stream's "use designation" is needed prior to the expenditure of millions of dollars financed by ratepayers.

Stream Habitat.—Urban stream habitat is not adequately addressed in the Ohio Water Quality Standards. Variances for CSO receiving streams should be allowed until the proposed Urban Stream Habitat can be fully assessed.

The city of Akron Public Utility is also faced with rapidly rising costs associated with storm water, total maximum daily loads (TMDL), and drinking water regulation.

Akron continues to develop access to the receiving stream with bike paths, downtown development, Mustill Store restoration and Cascade Lock Park. Also, the National Heritage River designation and National Park will continue to attract people to the Cuyahoga River. We look forward to a solution that will cost-effectively address CSO issues while producing benefits to the Akron rate payers, enhance the parks and trails, show improvements in water quality and further the goals of the Clean Water Act.

The significance of the Cuyahoga Valley National Park, National Heritage River status, State Resource waters, Metropolitan Parks, and the Ohio & Erie Canal National Heritage Corridor should all be factors in the allocation of grant funding.

Proposals similar to the Water Infrastructure Network (WIN) are needed to provide for adequate funding now and in the future. Through water and sewer bills, local rate payers already pay about 90 percent of the total cost to build operate and maintain their water and wastewater systems. We need a long-term, sustainable, and reliable source of Federal funding for clean water.

Wet Weather Standards.—The advent of the CSO program and other wet weather control regulations has focused recent attention on the need for wet weather water quality standards. The focus of wet weather standards has been on attainment of the criteria for waterborne bacteria, generally measured as either fecal coliform bacteria or more recently as *E. coli*. Typically many urban and suburban streams do not meet the recreational use criteria for bacteria during wet weather. The bacteria counts in streams rise during storms due to bacteria from a variety of non-point and point sources.

Studies in any major population center have consistently shown non-attainment of the existing "dry weather" criteria during and following even moderate wet weather events. Bacteria enter the streams from surface runoff, from septic system leach fields, and from both separate and combined sewer systems. Even areas with no sewer overflow often have bacteria concentrations that exceed the existing standards. Non-point sources of bacteria include pet wastes and wildlife (particularly geese) wastes.

The issue of wet weather standards has been raised at the national level by the Water Environment Federation (WEF), AMSA and other organizations representing municipal sewer authorities. The USEPA has thus far, been unwilling to derive a tiered water quality standard for wet weather recreational use. Fortunately the USEPA has typically not pursued enforcement cases where recreational use attainment is the primary.

There is no argument about the current standard being applicable and protective of human health during dry weather. The shift to the E. coli measure is also generally supported as being more representative of organisms that pose a risk to public health. The argument for a wet weather standard or variance has been put forward to provide a mechanism for avoiding consistent non-attainment where the source of that non-attainment is beyond the control of the municipal sewer authority. Also there is some question about the need for protection of contact recreational uses in urban areas where such contact does not typically occur during wet weather.

Also a wet weather standard provides alternatives for control of CSO that will reduce costs and remain protective of water quality. Many remedies selected for control of CSO include chlorination in an attempt to meet recreational use standards for bacteria. The addition of chlorine has been shown to have detrimental effects on aquatic life use so dechlorination of CSO is also considered. If a wet weather standard were established it could effectively reduce the amount of chlorine used and reduce those risks and the cost of the chlor-dechlor process.

The proposed standards that have been discussed with (but not accepted by) the USEPA include provisions for an increase in the allowable concentration during wet

weather and mechanisms for determining what is a qualifying wet weather condition.

USE DESIGNATIONS

During the early years of implementation of the Clean Water Act, States were tasked to develop use designations for all streams. The initial designations were often made without any detailed information about the existing use attained or attainable in a particular stream. Many streams were designated to meet a standard higher than what was "existing" at the time of the designation. These "default" designations have resulted in conditions where streams are prevented from meeting a designated use by conditions that cannot be controlled by pollution control technologies alone. Habitat alteration, flow modification, and dams are some examples of conditions that occur commonly in streams where those factors alone might prevent attainment of an aquatic life use designation even absent and significant point or non-point sources of pollution.

Subsequent re-designation has been difficult for State agencies because of the anti-backsliding provisions of the Clean Water Act. Citizens Groups often view a re-designation as a "degradation" of water quality, even if the existing water quality does not meet the existing designation.

The implementation of TMDLs and the ongoing implementation of CSO controls, highlights the difficulties with current designations. The difference between use attainment, in different States, depends more on the process used for designation than it does on causes and sources of non-attainment. Many streams change from non-attainment to attainment as they cross State boundaries because of the variation in use designation. Since TMDLs are now required in many States for all waters that are in non-attainment as a result of point source pollution, many States have additional incentive to review the designation process. These incentives do not remove the difficulties involved with a perceived "lowering" of a designated use.

Even within States the use designation process is often administered differently in different jurisdictions. On the Scioto River an impounded areas less than a mile long was re-designated as "modified warmwater habitat"; in the Cuyahoga River the sewer authority was told that a two mile long impounded area was "too short" and would unnecessarily "segment" the stream. In the Hocking River more than 3 miles of urban stream was re-designated as modified warmwater habitat "channelized" where the stream was straightened and had earthen banks of trapezoidal shape for a few stretches of about a mile with intervening stretches of natural stream banks and meandering channel shape. In the Little Cuyahoga River a variance (not a re-designation) was requested for a stream where a stretch of over 3 miles is straightened, predominantly in a rectangular concrete channel and contains no significant stretches of natural channel. That variance was refused by Ohio EPA on the grounds again that this would segment the stream and discourage the municipality from attempting to improve the existing use which had never met the existing designated use since many years prior to the inception of the Clean Water Act.

The cost of comprehensive use designation for streams is in the tens to hundreds of thousands of dollars depending on the size of the project. Clearly this expenditure can help to prioritize expenditure of further pollution controls to streams where use is appropriately designated and attainable.

STREAM HABITAT

Urban settings provide unique conditions for stream habitat. Streams in urban areas have typically been extensively modified. The goal of storm water management in urban areas has always been to provide drainage and avoid any surface retention of water in cities. That goal creates habitat conditions dominated by runoff hydraulics. In wet weather these streams have high peak flows and velocities that create scour and destabilize existing conditions. In dry weather these streams may have flows lower than would be expected in a stream not dominated by a storm drainage system. These two stage systems (low base flow, high peak flow) are not well suited for maintaining aquatic life.

Typically the property owners, the USACOE and City authorities have devoted a significant amount of engineering resources to stabilize these streams and prevent flooding during peak events. Most aquatic life use designations are developed based on habitat standards determined by "natural" streams with moderate change from pre-Columbian drainage and land use. Urban streams represent an extreme condition where most first order (the smallest) many second order and some third order streams have been replaced by pipes. In areas where these streams have not been entirely culverted they are often straightened and regularly dredged to promote drainage and prevent flooding. The remaining streams of fourth order and higher

are often disconnected from areas where populations of fish and macroinvertebrates can find conditions suitable for propagation or other functions essential to supporting the broad range of species that would be supported in a more diverse ecosystem. Often the larger streams are also extensively modified to provide other functions such as riverfront recreation or commercial navigation. In New York City as the most extreme example the "streams" in Central Park are entirely artificial and are fed primarily by tap water and drain into the combined sewer system.

While Ohio has much less extreme modification to the natural environment than New York City, the condition of the streams in urbanized and even in many suburban areas is highly modified. Those modifications prevent adequate colonization of fish species that would be necessary to support a warmwater habitat aquatic life use. Given the importance of the aquatic life use as an indicator of good water quality, as developed in Ohio Water Quality standards, it is important that the standards recognize habitat conditions that would prevent attainment even if all urban pollution sources were completely controlled.

Discussions have been initiated by several entities to develop an appropriate "urban" stream designation to address these conditions that prevent attainment of aquatic life uses. To date, the Ohio EPA has not been particularly open to developing an alternative to the existing designation system.

CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Program Overview

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

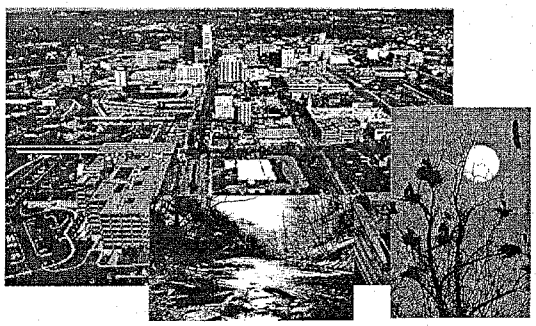
The planning area covers approximately 167 sq. mi. and includes most of the Akron metropolitan area. There is a population of 352,000 in the service area and includes all or a portion of 5 cities, 4 villages and 7 townships.

The system includes approximately 1,165 miles of sewer consisting of 188 miles of combined sewers.

There are 38 Combined Sewer Overflows (CSO) within the City of Akron.

Based on predictions from the hydraulic collection system model, the typical annual CSO volume is 2,440 million gallons.

CITY OF AKRON, OHIO
The Bureau of Engineering
Environmental Division
166 South High Street
Akron, Ohio 44308
Phone: 330-375-2357
Fax: 330-375-2288
Email: gsellpa@ci.akron.oh.us
Web Page: www.ci.akron.oh.us



Program Overview

The City of Akron has proposed a Long Term Control Plan that will cost more than $248,000,000 to implement. The cost is in addition to the millions Akron has already spent to date to study, address and reduce CSOs, and the $25 million spent to eliminate SSOs. Akron has seen a significant decline in its industrial base since the 1960s, requiring the residential users to carry the burden. Akron already carries one of the highest residential sewer rates in the State for communities of similar population

As part of developing Akron's Long term Control Plan, several options to fund the projects were evaluated. Given the significant total cost of these projects, it is likely that funds will have to be obtained from multiply sources (grants, low interest loans and revenues obtained by sewer rates). Grants are essential to the fundability and feasibility of the program. Without outside funding, sewer rates will more than double due to just the CSO program. The rate increase will adversely affect a significant portion of ratepayers, including those who can barely afford their current utility bills.

Project Cost:: $248,000,000
Estimated Annual O&M: $1,983,000

Existing Annual Overflow: 2,440 Million Gallons
Projected Reduction in Overflow: 1,074 Million Gallons or 44%

City of Akron
The Bureau of Engineering
Environmental Division

CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Program Overview

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

The selected alternative for the Ultimate Integrated Plan incorporates storage conveyance tunnels, detention basins, treatment basins and sewer separations.

A set of rating criteria was used to compare various alternatives. The criteria included storm water impacts, water quality improvements, operation and maintenance costs, public acceptance community improvements and construction issues.

The water quality improvements measures included coliform/events and hours, plant bypass impacts, CBOD, aesthetics and impact on local sensitive areas.

At this time, overflows only occur during wet weather.

Overview, continued

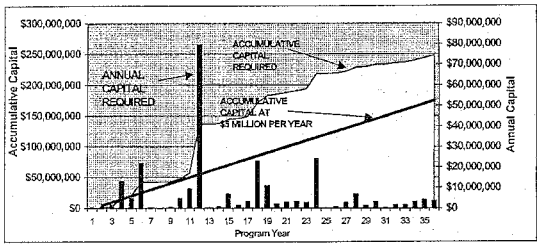
Akron continues to develop access to the receiving stream with bike paths, downtown development, Mustill Store restoration and Cascade Lock Park. Also, the National Heritage River designation and National Park will continue to attract people to the Cuyahoga River. We look forward to a solution that will cost-effectively address CSO issues while producing benefits to the Akron rate payers, enhance the parks and trails, show improvement in water quality and further the goals of the Clean Water Act.

Significant Issues

Wet Weather Standards: The current water quality standards do not (nor were they intended to) address wet weather events. Reevaluation of water quality standards for wet weather is needed on a state and federal level.

Use Designations: Reasonable and sincere reevaluation of "use designated" has not been conducted by the State agencies as allowed in the CSO Guidance.. EPA has reported that they do not have adequate funding to re-evaluate these requests, yet they expect local POTWs to expend hundreds of millions of dollars on CSO controls.

Stream Habitat: Urban stream habitat is not adequately addressed in the Ohio Water Quality Standards. Variances for CSO receiving streams should be allowed until the proposed Urban Stream Habitat can be fully assessed.



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CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Program Overview

Ultimate Integrated Plan
$250,000,000
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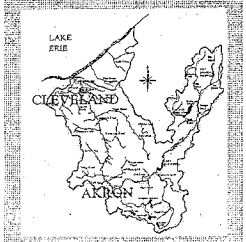
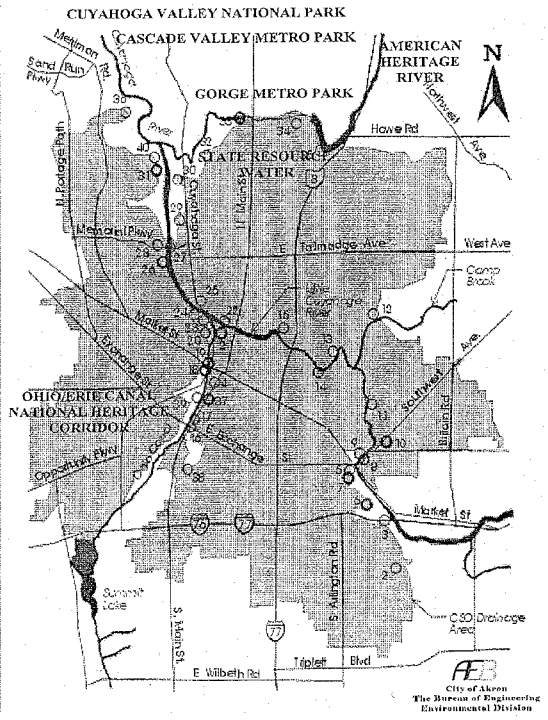
Receiving Streams
Cuyahoga River
Little Cuyahoga River
Ohio Canal

Sensitive Areas
State Resource Waters
Gorge and Cascade Valley Metro Parks
Ohio/Erie Canal National Heritage Corridor
American Heritage River
Cuyahoga Valley National Park

Cuyahoga River Watershed





CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Program Overview

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

The City of Akron has prioritized individual projects from the recommended Ultimate Integrated Plan and determined the required funding levels. The projects have been grouped into initial categories which could be associated with time frames or permit cycles.

After each group of projects is completed, a post-construction monitoring program will be conducted to determine the effectiveness of the improvements. At the same time, the City of Akron's financial capabilities will be assessed to determine its ability to afford the next group of selected projects.

Based on the results of the post-construction monitoring program and periodic financial assessments, projects could be re-prioritized and the approach altered.

The approach taken with the Long Term Control Plan is the "presumptive" approach.

The Annual Pollutant Capture after the LTCP is 94%.

Program Schedule and Costs

Implementation of Long term Control Plan		
Program Schedule and Costs		
Fact Sheet Available		Accumulative
Project Grouping	Capital Cost	Capital Cost
2006-2015		
Separation 39	$300,000	
Separation 9	$210,900	$510,900
Rack 40/31 Storage	$13,421,300	$13,932,200
Rack 26/28 Treatment	$2,561,600	$16,493,800
Separation 21/22 (partial)		
2015-2020		
WPCS Storage Phase I (20MillionG)	$25,450,000	$41,943,800
Misc Separations	$200,000	$42,143,800
CR Re-Aeration pilot	$750,000	$42,893,800
2020-2025		
Ohio Canal Tunnel	$93,446,100	$136,339,900
LCR Restoration	$8,103,600	$144,443,500
2025-2030		
WPCS Storage Phase II (20MillionG)	$25,450,000	$169,893,500
WCPS Disinfection	$12,600,000	$182,493,500
Rack 14	$1,984,800	$184,478,300
Rack 15	$1,651,200	$186,129,500
Rack 3	$1,700,100	$187,829,600
Rack 12	$2,201,400	$190,031,000
2030-2035		
Northside Tunnel	$28,371,900	$218,402,900
2035-2040		
Rack 8 Separation	$2,326,400	$220,729,300
Rack 30 Separation	$7,574,000	$228,303,300
Rack 36 Storage	$992,800	$229,296,100
Rack 10/11 Treatment	$3,723,600	$233,019,700
2040-2045		
Rack 7/5 Storage	$1,672,800	$234,692,500
Rack 22 Storage	$1,283,000	$235,975,500
Rack 25 Separation	$2,974,500	$238,950,000
Rack 13 Separation	$4,328,200	$243,278,200
Rack 21 Separation	$2,199,500	$245,477,700
Rack 29/27 Treatment	$1,934,100	$247,411,800
Total Capital Cost	$247,411,800	

City of Akron
The Bureau of Engineering
Environmental Division

CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Racks 40/31 Storage Basin

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

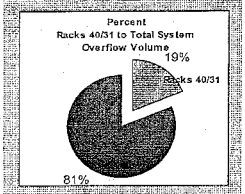
Rack 40/31 Project

Largest single volume of overflow.

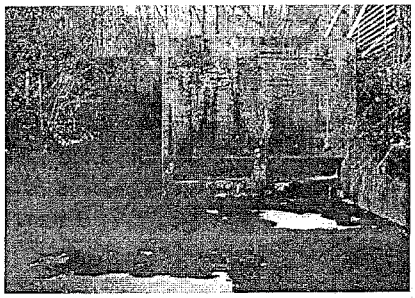
Adjacent to Hike and Bike Trail and recreation area.

Ohio EPA primary concern.

Reduces visible debris by capturing floatables and solids.



CITY OF AKRON, OHIO
The Bureau of Engineering
Environmental Division
166 South High Street
Akron, Ohio 44308
Phone: 330-375-2357
Fax: 330-375-2288
Email: gsallpa@ci.akron.oh.us
Web Page: www.ci.akron.oh.us



Rack 40/31 Storage Basin

Construct 500 ft x 170 ft x 15 ft, 9.5 million gallon storage basin for Racks 40/31 near the confluence of the Little Cuyahoga and Cuyahoga Rivers. This project provides the opportunity to obtain post-construction monitoring and evaluation of the effectiveness of a storage basin, address a CSO in a sensitive area, and address a large volume CSO.

Project Cost: $13,500,000

Estimated Annual O&M: $180,000

Existing Annual Overflow: 461 Million Gallons

Projected Reduction in Overflow: 316 Million Gallons or 68.5%

Existing Overflow Events: 65

Projected Reduction in Events: 60 or 92.3%

Remaining Events: 5

City of Akron
The Bureau of Engineering
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CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Racks 26/28 Treatment

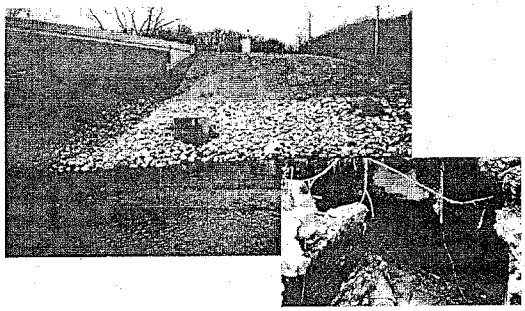
Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

Rack 26/28 Project

Reduce visible debris by capturing floatables and odors.

Provides primary clarification.

Provides disinfection.



Racks 26/28 Treatment Basin

Construct 120 ft x 40 ft x 15 ft, 0.5 million gallon treatment basin for Racks 26/28 on the Little Cuyahoga River. This project provides the opportunity to obtain post-construction monitoring and evaluation of the effectiveness of a treatment basin. These overflows are in the immediate area of the newly constructed Hike-Bike Trail.

Project Cost: $2,600,000

Estimated Annual O&M: $120,000

Existing Annual Overflow: 23.8 Million Gallons

Projected Reduction in Overflow: 22.5 Million Gallons or 94.7%

Existing Overflow Events: 92

Projected Reduction in Events: 86 or 93.5%

Remaining Events: 6

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The Bureau of Engineering
Environmental Division
166 South High Street
Akron, Ohio 44308
Phone: 330-375-2357
Fax: 330-375-2288
Email: gsellpa@ci.akron.oh.us
Web Page: www.ci.akron.oh.us

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CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - WPCS Storage Phase I

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

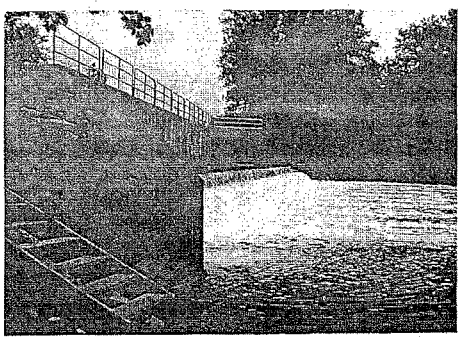
WPCS Storage Project

Reduces secondary by-pass and its water quality impacts.

Reduces the risk of DO and fecal noncompliance.

Allows for the downtiming of the collection system improvements and beams without adversely affecting the operation of the WPCS.

CITY OF AKRON, OHIO
The Bureau of Engineering
Environmental Division
166 South High Street
Akron, Ohio 44308
Phone: 330-375-2357
Fax: 330-375-2288
Email: gsellpa@ci.akron.oh.us
Web Page: www.ci.akron.oh.us



WPCS Storage Phase I

Construct 20 million gallon retention basin at the Water Pollution Control Station (WPCS) to store storm water. The retention basin is needed prior to increased capture and transport resulting from collection system improvements so as to not increase the WPCS secondary by-pass.

Project Cost Phase I: $25,500,000
Estimated Annual O&M Phase I: $235,000

City of Akron
The Bureau of Engineering
Environmental Division

CITY OF AKRON, OHIO

Combined Sewer Overflow (CSO) Long Term Control Plan Fact Sheet - Ohio Canal Tunnel

Ultimate Integrated Plan
$250,000,000
(subject to Ohio EPA approval)

Ohio Canal Tunnel Project

Address several of the largest CSO volumes.

Removes visible debris (floatables) and odor problems from downtown including the Lock 2 Park, Canal Park and Ohio Canal area.

Replaces failing infrastructure.

Improve control and reduce monitoring of overflows by combining 9 existing rack overflows into one location.

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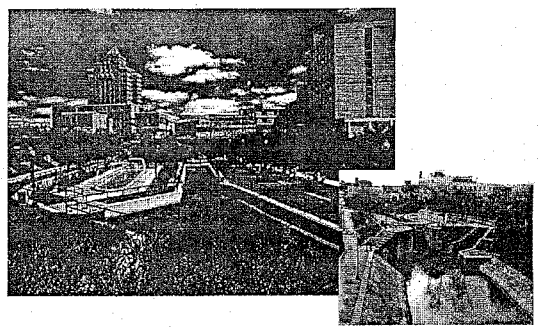
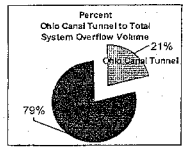


Ohio Canal Tunnel

Construct 23 ft. diameter with a 48 inch diameter inner pipe, 5,500 ft. long, 15 million gallon deep tunnel to store overflows from racks 4, 16, 17, 18, 19, 20, 23, 24,37 and a portion of 21 now discharging to the Ohio Canal.



Project Cost: $93,446,000

Estimated Annual O&M: $293,000

Existing Annual Overflow: 522 Million Gallons

Projected Reduction in Overflow: 283 Million Gallons or 54.3%

Existing Overflow Events: 246

Projected Reduction in Events: 238 or 96.7%

Remaining Events: 8

City of Akron
The Bureau of Engineering
Environmental Division

NEWS RELEASE

CORPS CONTINUES PARTNERSHIP WITH OHIO AGENCIES

BUFFALO.—The U.S. Army Corps of Engineers, Buffalo District, the Ohio Environmental Protection Agency (EPA) and the Ohio Department of Health (DH) are working together to improve the investigations being performed by the Corps under the Formerly Utilized Sites Remedial Action Program (FUSRAP) in Ohio. By partnering, th technical experience and expertise of all of theagencies is combined to provide valuable input toward provide resolving complex cleanup issues.

"All of our agencies are committed to having an open and honest dialog on FUSRAP sites in Ohio and ensuring that we develop plans that are safe and fully protective of human health and the environment," said Lt. Col. Glen R. DeWillie, Buffalo District Commander. "We are working together and coordinating the comprehensive evaluations being prepared for all of our sites."

The Corps is mandated by Congress to follow the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) in evaluating FUSRAP sites "Our ultimate goal in following CERCLA is to develop cleanup remedies that are fully protective of human health and the environment," said DeWillie. The district involves all stakeholders in partnering meetings to coordinate with the agencies and proactively seek their opinions and concerns so they can be properly addressed.

The Corps, the Ohio EPA and the Ohio DH schedule monthly telephone conferences and correspond regularly to ensure all issues and concerns that could impact public health and safety are properly evaluated while developing cleanup alternatives for the Ohio sites that are fully protective. The Ohio sites are: the Luckey Site; the Painesville Site; the former Harshaw Chemical Company in Cleveland; Dayton Unit 1, Dayton Warehouse, Dayton Unit III, and Dayton Unit IV; and the Scioto Laborator Complex in Marion.

Citizens interested in being added to any of the Ohio Site mailing lists or seeking additional information regarding the site can contact the USACE FUSRAP Public Information Center toll-free at 1–800–833–6390. The Internet website for the Buffalo District is http://www.lrb.usace.army.mil/fusrap.E-mail can be addressed to fusrap@usace.army.mil

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