

# PUTTING AMERICA BACK TO WORK THROUGH CLEAN WATER INFRA- STRUCTURE INVESTMENT

---

(111-129)

## HEARING BEFORE THE SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES ONE HUNDRED ELEVENTH CONGRESS SECOND SESSION

---

July 15, 2010

---

Printed for the use of the  
Committee on Transportation and Infrastructure



---

U.S. GOVERNMENT PRINTING OFFICE

57-485 PDF

WASHINGTON : 2010

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

## COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

JAMES L. OBERSTAR, Minnesota, *Chairman*

<p>NICK J. RAHALL, II, West Virginia, <i>Vice Chair</i>            PETER A. DeFAZIO, Oregon            JERRY F. COSTELLO, Illinois            ELEANOR HOLMES NORTON, District of Columbia            JERROLD NADLER, New York            CORRINE BROWN, Florida            BOB FILNER, California            EDDIE BERNICE JOHNSON, Texas            GENE TAYLOR, Mississippi            ELIJAH E. CUMMINGS, Maryland            LEONARD L. BOSWELL, Iowa            TIM HOLDEN, Pennsylvania            BRIAN BAIRD, Washington            RICK LARSEN, Washington            MICHAEL E. CAPUANO, Massachusetts            TIMOTHY H. BISHOP, New York            MICHAEL H. MICHAUD, Maine            RUSS CARNAHAN, Missouri            GRACE F. NAPOLITANO, California            DANIEL LIPINSKI, Illinois            MAZIE K. HIRONO, Hawaii            JASON ALTMIRE, Pennsylvania            TIMOTHY J. WALZ, Minnesota            HEATH SHULER, North Carolina            MICHAEL A. ARCURI, New York            HARRY E. MITCHELL, Arizona            CHRISTOPHER P. CARNEY, Pennsylvania            JOHN J. HALL, New York            STEVE KAGEN, Wisconsin            STEVE COHEN, Tennessee            LAURA A. RICHARDSON, California            ALBIO SIRE, New Jersey            DONNA F. EDWARDS, Maryland            SOLOMON P. ORTIZ, Texas            PHIL HARE, Illinois            JOHN A. BOCCIERI, Ohio            MARK H. SCHAUER, Michigan            BETSY MARKEY, Colorado            MICHAEL E. McMAHON, New York            THOMAS S. P. PERRIELLO, Virginia            DINA TITUS, Nevada            HARRY TEAGUE, New Mexico            JOHN GARAMENDI, California            HANK JOHNSON, Georgia</p>	<p>JOHN L. MICA, Florida            DON YOUNG, Alaska            THOMAS E. PETRI, Wisconsin            HOWARD COBLE, North Carolina            JOHN J. DUNCAN, JR., Tennessee            VERNON J. EHLERS, Michigan            FRANK A. LoBIONDO, New Jersey            JERRY MORAN, Kansas            GARY G. MILLER, California            HENRY E. BROWN, JR., South Carolina            TIMOTHY V. JOHNSON, Illinois            TODD RUSSELL PLATTS, Pennsylvania            SAM GRAVES, Missouri            BILL SHUSTER, Pennsylvania            JOHN BOOZMAN, Arkansas            SHELLEY MOORE CAPITO, West Virginia            JIM GERLACH, Pennsylvania            MARIO DIAZ-BALART, Florida            CHARLES W. DENT, Pennsylvania            CONNIE MACK, Florida            LYNN A. WESTMORELAND, Georgia            JEAN SCHMIDT, Ohio            CANDICE S. MILLER, Michigan            MARY FALLIN, Oklahoma            VERN BUCHANAN, Florida            BRETT GUTHRIE, Kentucky            ANH "JOSEPH" CAO, Louisiana            AARON SCHOCK, Illinois            PETE OLSON, Texas            TOM GRAVES, Georgia</p>
--	---

SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT

EDDIE BERNICE JOHNSON, Texas, *Chairwoman*

THOMAS S. P. PERRIELLO, Virginia	JOHN BOOZMAN, Arkansas
JERRY F. COSTELLO, Illinois	DON YOUNG, Alaska
GENE TAYLOR, Mississippi	JOHN J. DUNCAN, JR., Tennessee
BRIAN BAIRD, Washington	VERNON J. EHLERS, Michigan
TIMOTHY H. BISHOP, New York	FRANK A. LoBIONDO, New Jersey
RUSS CARNAHAN, Missouri	GARY G. MILLER, California
STEVE KAGEN, Wisconsin	HENRY E. BROWN, JR., South Carolina
DONNA F. EDWARDS, Maryland <i>Vice Chair</i>	TODD RUSSELL PLATTS, Pennsylvania
SOLOMON P. ORTIZ, Texas	BILL SHUSTER, Pennsylvania
PHIL HARE, Illinois	MARIO DIAZ-BALART, Florida
DINA TITUS, Nevada	CONNIE MACK, Florida
HARRY TEAGUE, New Mexico	LYNN A WESTMORELAND, Georgia
ELEANOR HOLMES NORTON, District of Columbia	CANDICE S. MILLER, Michigan
MICHAEL E. CAPUANO, Massachusetts	ANH "JOSEPH" CAO, Louisiana
GRACE F. NAPOLITANO, California	PETE OLSON, Texas
MAZIE K. HIRONO, Hawaii	VACANCY
HARRY E. MITCHELL, Arizona	
JOHN J. HALL, New York	
BOB FILNER, California	
CORRINE BROWN, Florida	
JOHN GARAMENDI, California	
HANK JOHNSON, Georgia	
JAMES L. OBERSTAR, Minnesota	
<i>(Ex Officio)</i>	





## CONTENTS

	Page
Summary of Subject Matter .....	vi

### TESTIMONY

Hawkins, George S., General Manager, District of Columbia Water and Sewer Authority .....	4
Holloway, Caswell F., Commissioner, New York City Department of Environmental Protection .....	4
Marcason, Hon. Jan, City Council Member, City of Kansas City, Missouri, on behalf of the National League of Cities .....	4
Soth, Jeffrey, Assistant Director, Department of Legislative and Political Affairs, International Union of Operating Engineers, on behalf of the National Construction Alliance II .....	4
Vander Molen, Dennis, President, Vermeer Midsouth, Inc., on behalf of the Associated Equipment Distributors .....	4

### PREPARED STATEMENTS SUBMITTED BY MEMBERS OF CONGRESS

Johnson, Hon. Hank, of Georgia .....	30
Mitchell, Hon. Harry E., of Arizona .....	34

### PREPARED STATEMENTS SUBMITTED BY WITNESSES

Hawkins, George S. ....	35
Holloway, Caswell F. ....	39
Marcason, Hon. Jan .....	46
Soth, Jeffrey .....	51
Vander Molen, Dennis .....	55

### SUBMISSION FOR THE RECORD

Holloway, Caswell F., Commissioner, New York City Department of Environmental Protection, response to request for information from the Subcommittee .....	44
---	----



**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**  
**Washington, DC 20515**

**James L. Oberstar**  
Chairman

**John L. Mica**  
Ranking Republican Member

David Heymsfield, Chief of Staff  
Ward W. McCarragher, Chief Counsel

July 12, 2010

James W. Cronin II, Republican Chief of Staff

**SUMMARY OF SUBJECT MATTER**

**TO:** Members of the Subcommittee on Water Resources and Environment  
**FROM:** Subcommittee on Water Resources and Environment Staff  
**SUBJECT:** Hearing on "Putting America Back to Work through Clean Water Infrastructure Investment"

**PURPOSE OF THE HEARING**

The Subcommittee on Water Resources and Environment will meet on Thursday, July 15, 2010, at 2:00 p.m., in room 2167 of the Rayburn House Office Building receive testimony from representatives from the business community, the labor community, the City of New York, New York, the City of Kansas City, Missouri, and the District of Columbia's wastewater agency on investments in clean water infrastructure and the impact on jobs in the United States.

**BACKGROUND**

This memorandum summarizes the history of the development of wastewater investment in the United States, including the funding history of the Clean Water State Revolving Fund (CWSRF), and job and economic opportunities created by continued investment in our nation's infrastructure.

**I. Wastewater Infrastructure Investment and Future Needs**

The Subcommittee on Water Resources and Environment has jurisdiction over the water quality and wastewater infrastructure programs administered by the Environmental Protection Agency (EPA) under the Federal Water Pollution Control Act (P.L. 92-500), commonly known as the Clean Water Act.

The passage of the Clean Water Act has resulted in significant improvements in water quality. However, the challenge to continue progress in meeting the fishable and swimmable goals of Clean Water Act remains, especially as our existing national wastewater infrastructure is aging, deteriorating, and in need of repair, replacement, or upgrade. In 2000, EPA reported that without

continued improvement in wastewater treatment infrastructure, the nation faces the very real risk of losing the environmental gains it has achieved over the last three decades. Our \$250 billion investment in wastewater infrastructure since the Clean Water Act's passage is at risk, as is the \$300 billion per year in economic activity that relies on clean water.

## **II. The Clean Water State Revolving Fund**

CWSRF is the primary Federal vehicle for funding wastewater infrastructure programs throughout the nation. CWSRF funds are used for capitalization grants for State Clean Water programs and infrastructure.

Titles II and VI of the Clean Water Act provide authority for grants to States and municipalities and the establishment of State wastewater infrastructure financing authorities, respectively, for the construction of treatment works. The Construction Grants program, contained in Title II of the Act, funded approximately \$60 billion in wastewater improvements over the life of the program. This program was phased out in favor of state revolving loan funds in the Water Quality Act of 1987 (P.L. 100-4).

Title VI of the Clean Water Act provides for the establishment and capitalization of CWSRFs to aid in funding the construction of wastewater infrastructure for the improvement of water quality throughout the nation.

Since 1987, the majority of Federal assistance for wastewater infrastructure improvements has been through the CWSRF program. Through this program, individual states and territories maintain revolving loan funds to provide low-cost financing for approved infrastructure projects. Funds to capitalize the CWSRF programs are provided through Federal capitalization grants and State matching funds (equal to 20 percent of Federal Government grants). Since 1987, Congress has appropriated more than \$24 billion in capitalization grants funded through general taxpayer revenues. CWSRF revenues also include receipts from the sale of bonds, loan repayments, and interest earnings. From all sources, more than \$55 billion has been deposited into the CWSRFs.

EPA has approved 57 States and territories for funding under the CWSRF program. CWSRFs are available to make low interest loans, buy or refinance local debt, subsidize or insure local bonds, make loan guarantees, act as security or guarantee of state debt, earn interest, and pay administrative expenses. CWSRF monies also may be used to implement certain other water pollution control programs such as nonpoint source pollution management and national estuary programs. All projects must be those that will assure maintenance of progress toward the goals of the Clean Water Act and meet the standards and enforceable requirements of the Act.

Through fiscal year (FY) 2007, the CWSRFs have provided \$63 billion in loans for wastewater projects, including nearly \$5.3 billion in loans in FY 2007 alone. Yet, the demand for financial assistance from the CWSRFs continues to exceed available funds, forcing communities to look elsewhere for the additional capital necessary for wastewater infrastructure, or to defer wastewater infrastructure improvements.

Communities raise the rest of the capital they may require from other sources, primarily from banks and issuing municipal bonds. Communities use revenues collected from rate-payers to fund both operation and maintenance and repayment of the debt they have incurred. Very few

communities have sufficient capital resources to fund infrastructure improvements without incurring debt. Small, rural, and disadvantaged communities face a shrinking pool of financing resources, and are especially at a disadvantage in financing water and wastewater infrastructure. States can also increase their CWSRF financing capacity by using financial leveraging techniques to raise additional financing for important water quality projects.

### **III. Alternative Water Projects**

In recent years, there has been increasing interest by communities across the nation and by Congress in ensuring the availability of water sources to meet future water supply needs. Growth in population and increasing environmental awareness are causing many communities to explore alternative water supplies through reclamation, reuse, and conservation.

While the initial Clean Water Act construction grants program and the CWSRFs have been available for such activities, most expenditures to date have been for more traditional wastewater projects, and not for enhancing water supplies through wastewater reuse and water recycling.

To provide Federal assistance, in 2000, Congress amended the Clean Water Act to add section 220 (Title VI of Pub. L. 106-457). Section 220 authorized appropriations of \$75 million for FY 2002 through FY 2004 for EPA to make grants for alternative water source projects to entities with authority under State law to develop or provide water for municipal and industrial or agricultural uses in areas that are experiencing critical water supply needs, with a non-Federal cost share of 50 percent. This authorization has expired. If section 220 of the Clean Water Act was reauthorized, it would provide an authority to help meet some critical water supply needs around the nation. This provision has never received funding.

The American Reinvestment and Recovery Act (P.L. 111-5) (Recovery Act) required that States spend 20 percent of the CWSRFs received under Recovery Act on “green infrastructure.” Communities across the country have been able to work on innovative projects to reduce flows entering their wastewater treatment systems, thus improving the ability of systems to deal with surges of wastewater and stormwater during wet weather and storm events. This should result in wastewater being treated more effectively during wet weather and storm events.

### **IV. Impacts of Wastewater Infrastructure Investment**

To a great extent, improvements in water quality since the passage of the Clean Water Act have resulted from a significant investment in wastewater infrastructure improvements throughout the country. Since 1972, the Federal Government has provided more than \$82 billion for wastewater infrastructure and other assistance, which has dramatically improved water quality and the health of the economy and the environment. During the same time period, overall investment in the nation’s wastewater infrastructure, from Federal, State, and local sources, has been over \$250 billion. As noted earlier, the primary funding mechanism for clean water (wastewater) infrastructure is now the CWSRF program. According to EPA, the CWSRF program has provided nearly \$69 billion in assistance since its inception in 1987 by issuing 22,700 low interest loans. Through its revolving loan structure, in 2008 the CWSRF funded \$5.8 billion in total in high priority projects.

Today, the nationwide system of wastewater infrastructure includes 16,000 publicly-owned wastewater treatment plants, 100,000 major pumping stations, 600,000 miles of sanitary sewers, and 200,000 miles of storm sewers.

Investment in wastewater infrastructure has provided significant environmental, public health, and economic benefits to the nation. First through the Federal construction grants program, and now the CWSRF program, the investment in water infrastructure has been integral to improving the quality of the nation's waters. The improvements to water quality realized through Federal, State, and local investment in wastewater infrastructure have been significant, helping to increase the number of fishable and swimmable waters throughout the nation. As a result of dramatic improvements in the treatment of wastewater, effluent discharges have decreased by one-half since 1970, despite the fact that waste loads grew by more than one-third due to population growth and an expanded economy. Today, the nation's farmers, fishermen, and manufacturing and tourism industries rely on clean water to carry out activities that contribute more than \$300 billion to our economy each year.

EPA estimates that, between 1987 and 2005, approximately 600,000 construction jobs and 116,000 additional, or indirect, jobs resulted from CWSRF monies.

The Recovery Act appropriated \$4 billion for clean water infrastructure. EPA distributed the Recovery Act funds to states via the CWSRF formula. As of May 31, 2010, 100 percent of these funds had been put out to bid for 1,962 projects in the 50 States, four territories, and the District of Columbia. Contracts had been signed for 1,957 projects, and work was underway for 1,884 projects (totaling \$3.8 billion). As of this date, 168 projects, totaling \$92 million, were complete.

These projects include construction, upgrades to facilities, and maintenance of publicly-owned waste water treatment facilities serving an estimated 60 million people, almost one-third of the U.S. population. Recovery Act investments will further fund: 375 sewer projects (\$1.1 billion); improvements, rehabilitation, or expansion of 500 wastewater collection system projects (\$680 million); and 250 water or energy efficiency projects to protect our nation's water supply and reduce the energy used to pump, treat, and distribute wastewater by 15 to 30 percent (\$515 million).

According to EPA, approximately 5,177 jobs were created from Recovery Act CWSRF monies. This figure reflects recipient reporting to [www.recovery.gov](http://www.recovery.gov). This job figure consists only of jobs produced in the first quarter of 2010 (January-March 2010) and also includes only jobs directly attributable to Recovery Act funding. It does not include indirect or induced jobs that were created or sustained as a result of this funding (such as, equipment or supplies.)

According to information directly submitted to the Committee on Transportation and Infrastructure by States,<sup>1</sup> during the first year of implementation (February 17, 2009, through February 28, 2010), these projects created or sustained 26,075 direct, on-project CWSRF jobs.<sup>2</sup>

<sup>1</sup><http://transportation.house.gov/Media/Files/ARRA/20100630/Recovery%20Act%20Funds%20by%20State%20and%20Program%20as%20of%20May%2031%202010.pdf>.

<sup>2</sup> Direct jobs are charged directly to the project, and include workers employed to build a facility or upgrade equipment on-site. Consistent with the U.S. Department of Transportation's (DOT) reports pursuant to section 1201 of the Recovery Act, this figure is based on direct, on-project full-time-equivalent (FTE) job months. One person working full time or two people working one-half time for one month represents one FTE job month. FTE job months are calculated by dividing the number of cumulative direct, on-project job hours created or sustained by Recovery Act

During May 2010, the Recovery Act created or sustained approximately 5,906 direct, on-project CWSRF jobs. These figures do not include indirect or induced jobs created or sustained as a result of Recovery Act funding.

In total, direct job creation from these Recovery Act CWSRF projects has resulted in payroll expenditures of \$251 million.

**V. H.R. 1262, The Water Quality Financing Act of 2009**

H.R. 1262, the Water Quality Investment Act of 2009, passed in March, 2009. H.R. 1262 amends the Clean Water Act to reauthorize appropriations for capitalization grants to states for State water pollution control revolving funds; to reauthorize appropriations for the EPA to provide grants for alternative water source projects to meet critical water supply needs; to reauthorize appropriations for grants to municipalities and States to control combined sewer overflows and sanitary sewer overflows; to provide a uniform, national standard for monitoring, reporting, and public notification of municipal combined sewer overflows and sanitary sewer overflows; and to reauthorize and increase appropriations for projects to remediate contaminated sediment in the Great Lakes areas of concern.

**WITNESSES**

**Hon. Jan Marcason**  
Member (4<sup>th</sup> District)  
City Council  
City of Kansas City, Missouri

**Mr. Caswell F. Holloway**  
Commissioner  
New York City Department of Environmental Protection

**Mr. George S. Hawkins**  
General Manager  
District of Columbia Water and Sewer Authority

**Mr. Dennis Vander Molen**  
President, Vermeer Midsouth, Inc  
*On behalf of the Associated Equipment Distributors*

**Mr. Jeffrey Soth**  
Assistant Director  
Department of Legislative and Political Affairs  
International Union of Operating Engineers

---

funds, as reported by States, MPOs, and public transit agencies, by 173 hours (40 hours per week times 52 weeks divided by 12 months = 173 hours).

## **PUTTING AMERICA BACK TO WORK THROUGH CLEAN WATER INFRASTRUCTURE INVESTMENT**

---

**Thursday, July 15, 2010**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON WATER RESOURCES AND  
ENVIRONMENT,  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 2:40 p.m., in room 2167, Rayburn House Office Building, Hon. Eddie Bernice Johnson [Chairman of the Subcommittee] presiding.

Ms. JOHNSON. The Committee will come to order and let me first apologize for being late, it is because of votes. And I'm aware that Mr. Holloway has to leave not later than 3:30, and we will try to make sure you get your testimony in before.

Today's hearing, of course, will focus on the success of clean water infrastructure funding and how that investment has helped to create and sustain jobs during the current economic downturn.

Since Congress passed the Recovery Act, this committee has been tracking its progress, particularly in terms of investments of Recovery Act dollars and clean water infrastructure. Successful implementation of this legislation has been essential to our collective efforts to turn our economy around and create well-paying jobs here in America. I am happy to report that of the \$4 billion provided by the Recovery Act for the Clean Water State Revolving Fund programs.

The Environmental Protection Agency has awarded 100 percent of these funds and capitalization grants to States. Further, according to the EPA, some 5,177 jobs were created with these monies. That really is good news, sometimes we can't tell it.

In my home State of Texas, as of May 31st, 2010, all of our funds have been committed and are under contract, and all of the projects are underway. Approximately, \$172 million has been allocated for 20 projects. And according to figures collected by this committee, this funding has created a sustained 286 jobs in May of this year alone. Those are jobs that would have been lost or never created. And these are 20 projects that never would have seen the light of day.

I would like to see this the continued success through the Clean Water State Revolving Fund. In order for that to happen, Congress needs to reauthorize the program to allow for more adequate appropriations to EPA, to make capitalization grants to States for

clean water infrastructure. This House has already passed the Water Quality Financing Act of 2009 which would do just that.

Also, the Energy and Commerce Committee has done their part by moving their legislation to reauthorize the drinking water state revolving fund out of their committee. We hope that the House will soon have the opportunity to vote on it. The Senate has also moved their legislation to reauthorize both the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund out of the environmental and public works committee.

It is my sincere wish that both Chambers will meet in conference so that we can finally get this vital legislation signed into law. We need to do this so that these important programs can continue to fund this critical infrastructure and provide more good jobs for working Americans. I look forward to hearing from all of our witnesses today on the importance of continuing investment in clean water infrastructure.

The chair now recognizes our ranking member, Mr. Boozman.

Mr. BOOZMAN. Thank you, Madam Chair for holding this important hearing. The Congressional Budget Office EPA and the Water Infrastructure Network have estimated that it could take between 300 and \$400 billion to address our Nation's clean water infrastructure needs over the next 20 years to keep our drinking water and waterways clean and safe. This is twice the current level investment by all levels of government. These needs are being well documented in our subcommittee prior hearings. It was 1 year ago today that we held a similar hearing on the benefits of wastewater infrastructure. Our Nation's quality of life and economic well-being rely on clean water. Our Nation has invested over 250 billion on wastewater infrastructure to provide adequate wastewater treatment so that we can keep our waters clean.

This investment has provided significant, environmental and public health benefits and contributes over \$300 billion of economic benefits to the Nation each year. The challenge to continue providing clean water remains as our existing national wastewater infrastructure is aging and deteriorating and in need of repair, replacement and upgrading.

In March 2009, the House of Representatives passed legislation that would authorize increased funding for wastewater infrastructure through a reauthorization of the Clean Water State Revolving Loan Fund administered by EPA. This bill is designed to help communities meet their growing demand for wastewater infrastructure needs and improve water quality. While I remained genuinely concerned regarding the adverse effects that the Davis-Bacon providing wage requirements will have on jobs and clean water. I supported the legislation on balance. If we do not start investing in our wastewater infrastructure now, it is going to cost our Nation billions more in the future. And when we do invest Federal funds in infrastructure, we need to do it in ways that will give us the best clean water value for the dollar.

For many families in America, the recession is far from over as unemployment continues to increase. We can debate the merits and demerits of the stimulus package enacted in 2009, but I think we have a bipartisan agreement here on the committee that not enough money has been devoted to job creating infrastructure



projects. Today's hearing will highlight the positive ripple effects in the economy provided by investments in clean water infrastructure projects.

The debate has moved beyond the calculation of job creation statistics. Debating job creation and its associated statistics are irrelevant. We all know that a robust economy produces jobs. Yet, according to the Associated General Contractors, 22,000 jobs were lost in the construction trades market during the month of June and unemployment construction trades remains at 21 percent. These are not positive trends and it is clear that the stimulus bill did little to create jobs.

Too many stimulus dollars were allocated to other types of frivolous spending while too few dollars were devoted to infrastructure projects that not only produce jobs, but also lasting public benefits.

The administration claimed the stimulus package would help the unemployment from going above 8 percent. However the Nation has had an unemployment rate of close to 10 percent for the last year. Now some of the administration are saying that the stimulus package was necessary to keep unemployment from below 12 percent. Given the fact that the transportation projects and other infrastructure projects like flood damage reduction and wastewater treatment projects provide economic benefits to the Nation, the administration and the Congress need to place a higher priority on the work of the Army Corps of Engineers and EPA's Clean Water State Revolving Loan benefit loan fund and Brownsville program.

Without efficient transportation systems the Nation's competitiveness will suffer. Without a strong economy, the Nation's environment will suffer, without—it is evident that we are now paying a heavier price for a stimulus bill that shortchanged the infrastructure investment.

I would like to offer special welcome to one of our witnesses, Dennis Vander Molen, whose company has a number of important facilities in my congressional district in Arkansas. I thank you, Madam Chair, for holding this important hearing again, and I look forward to hearing from our witnesses.

Ms. JOHNSON. Thank you very much. I now will go directly to the panel. Our first witness this afternoon is Councilwoman Jan Marcason, she is a city council member for the City of Kansas City, Missouri. However, today she is testifying on behalf of the National League of Cities.

Next is Mr. Caswell Holloway. Mr. Holloway is Commissioner of the New York City State Department of Environmental Protection. I know you have to leave. In your testimony that you submitted, you talked about the timing of which this had to come and it could have been better used. Would you comment on that when you are testifying?

And our third witness is Mr. George Hawkins. He is the general manager of the District of Columbia water and sewer authority.

Our fourth witness is Mr. Dennis Vander Molen. He is testifying on behalf of the Associated Equipment Distributors today.

And lastly, Mr. Jeffrey Soth, who will testify on behalf of the National Construction Alliance II. Your full statements will be placed in the record so we ask you to limit your testimony to 5 minutes.

**STATEMENTS OF HON. JAN MARCASON, CITY COUNCIL MEMBER, CITY OF KANSAS CITY, MISSOURI, ON BEHALF OF THE NATIONAL LEAGUE OF CITIES; CASWELL F. HOLLOWAY, COMMISSIONER, NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION; GEORGE S. HAWKINS, GENERAL MANAGER, DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY; DENNIS VANDER MOLEN, PRESIDENT, VERMEER MIDSOUTH, INC., ON BEHALF OF THE ASSOCIATED EQUIPMENT DISTRIBUTORS; AND JEFFREY SOTH, ASSISTANT DIRECTOR, DEPARTMENT OF LEGISLATIVE AND POLITICAL AFFAIRS, INTERNATIONAL UNION OF OPERATING ENGINEERS, ON BEHALF OF THE NATIONAL CONSTRUCTION ALLIANCE II**

Ms. JOHNSON. We know we are late, and I know some of you are on a tight schedule now so thank you and I now recognize Ms. Marcason.

Ms. MARCASON. Good afternoon, Madam Chairman and Ranking Member Boozman and members of the Committee. I am Jan Marcason, a city councilwoman from Kansas City, Missouri. I am here on behalf of the National League of Cities, the oldest and largest organization representing cities and towns across America. I appreciate the opportunity to share our perspective on the important role of water infrastructure investment in creating jobs, protecting the environment and improving the quality of life in our home towns, and specifically, in my hometown of Kansas City, Missouri.

Thank you, Madam Chairwoman, for your recent visit to Kansas City to see firsthand the green infrastructure solutions that our city is incorporating in its overflow control plan. We were also pleased to host Chairman Oberstar who came to Kansas City to learn more about our infrastructure plan. As you witnessed, Kansas City is implementing an innovative and ambitious plan to improve the city's water quality by overhauling our sewer system and implementing green infrastructure solutions such as rain gardens and bioretention facilities to intercept, store and infiltrate storm water runoff, thereby significantly reducing discharges of untreated sewage that overflows into our lakes, streams and rivers.

Kansas City's plan was developed with the significant input of our community stakeholders. We undertook a large scale community involvement project to gather information from residents about the kinds of improvements that they would like to see in their neighborhood. The Wet Weather Community Panel was comprised of 20 citizens and subject matter experts that met every month for 5 years. I served as the city council liaison to that panel. It became clear that the community wanted more than just new pipes and treatment facilities. They wanted multiple benefits often called the triple bottom line.

The multiple benefits include environmental, social and financial benefits from our infrastructure improvements. Residents and business owners both want clean water, but they also want attractive sidewalks to encourage walking and way to reduce speeding on their neighborhood streets. They want infrastructure improvements to encourage business development in underserved neighborhoods

in particular. And they want a system that is affordable for residents and business customers.

The plan that Kansas City developed is a cost-effective approach to addressing our aging infrastructure. Green solutions actually reduced the cost of implementing our plan. In the target green pilot project area of 100 acres, the city will save an estimated \$10 million by implementing green solutions instead of the traditional retention tanks that were first proposed to address storm water runoff. The investment our city is making will have a tremendous impact on our local economy. Our plan is a 25-year, \$2.5 billion program, the largest economic development project in our city's history. It is projected that it will create nearly 20,000 good paying jobs over the life of the project, some in the areas of the emerging technology, and others in design, engineering and construction. The 28 communities served by Kansas City Water Services Department will all be direct beneficiaries of these improvements and will also benefit from the economic development opportunities provided by the system.

Local engineering companies, nonprofit job training organizations, and educational institutions are all working together to prepare the workforce for the multitude of jobs that implementing our plan will require. To the extent that our water infrastructure is properly maintained and can adequately meet the needs of our communities, it will help ensure the long-term vitality of our cities.

As Kansas City is demonstrating investment in water infrastructure and other infrastructure systems will create good paying jobs and enable business development that is the essential component to a thriving local economy. However, improving the infrastructure system to protect the public health and promote our local economies requires a substantial investment.

The latest U.S. EPA clean water sheds needs survey of January 2008 documents a nearly \$300 billion need for wastewater and storm water management over the next 20 years. My own State of Missouri documented needs totaling 6 per \$5 billion.

Federal assistance in meeting these needs has declined by 75 percent over the last 20 years, while municipal costs for operation and maintenance of our aging systems has dramatically increased. Given the level of need governments at all levels must do more to protect and modernize our Nation's water infrastructure systems. In terms of the Federal Government, this means reauthorizing and fully funding the Clean Water State Revolving Loan Fund program by fully funding this program and its companion, the Drinking Water SRF, and including requirements that States make a portion of such funds available as grants to local governments.

The Federal Government can help ensure that communities have the resources needed to protect and maintain the wastewater and drinking water treatment facilities that serve our residents and businesses. To help fund implementation of our plan, Kansas City is requesting Clean Water SRF funds loans and grants from the State of Missouri. However, the city is relying on user fees and rate increases to residents to pay for our overflow control plan. So far, these fees and rate increases have not been insignificant. Since 2008 the average residential water utility bill has increased 44 percent. In order to keep future fees and rates affordable to our citi-

zens and our businesses, the availability of funds through the SRF program is essential.

The National League of Cities wants to thank the committee for its leadership in approving legislation and reauthorizing the Clean Water SRF program. NLC supported the Water Quality Investment Act of 2009 that passed the House last year, and continues to urge the Senate to bring similar legislation to the floor for consideration. I want to thank you for the opportunity to speak to you on behalf of America's cities and towns. On behalf of the National League of Cities, I have submitted written testimony for your consideration and I look forward to your questions later on. Thank you.

Ms. JOHNSON. Thank you very much. Mr. Holloway.

Mr. HOLLOWAY. Thank you, good afternoon, Madam Chair. I am Cas Holloway, Commissioner of the New York City Department of Environmental Protection, or as we are known in New York City, DEP. On behalf of Mayor Michael R. Bloomberg, thank you for the opportunity to testify about the critical water on wastewater infrastructure challenges that we face serving 9 million New Yorkers, 8 million in the city and 1 million more upstate in New York.

Over the past 7 years we have invested \$19 billion in our water and wastewater infrastructure and our budgeted amount for the next 4 years is \$6 billion. We employ 6,000 men and women who provide water and sewer services to the residents of New York City as well as commuters and out-of-towners. We manage the city's water supply providing more than a billion gallons of water a day from a watershed that extends 125 miles from New York City.

We have 7,000 miles of aqueducts, tunnels and water mains that bring water to homes and 7,400 miles of sewer lines that take approximately 1.3 billion gallons of wastewater to one of our 14 in-city treatment plants every day. That infrastructure could criss-cross the country twice.

DEP also has one of the largest construction budgets in the region. We currently have \$11 billion of work under construction, and 3 billion more in planning or design. And as I noted, our capital budget for the next 4 years is approximately \$6 billion, which we estimate will generate approximately 9,200 construction jobs. We receive 219 million in ARRA funding, and that was critical. We estimated it will create as many as 1,400 jobs to do vital work in the wastewater and water area that I will discuss in a minute or two.

A majority of DEP's capital spending over the past 8 years has been dedicated to meeting unfunded Federal and State regulatory mandates that require the simultaneous completion of massive capital projects on tight construction schedules. Some of our largest current projects went to bid at the height of the construction market in 2006 and 2007. Not because of a pressing public health need, but because of Federal and State mandates that didn't take account of New York City's particular needs.

Many of our mandates could have been stretched or modified without any appreciable impact on public health of the environment. Which would have enabled us to build less at the same time and focus more resources on maintaining our current infrastructure in a state of good repair.

It is time for the national clean water strategy to evolve from a one-size-fits-all mandate and enforcement approach to a strategy

that recognizes and funds the individual needs of water and wastewater utilities based on clearly demonstrated public health need and water quality benefits. And I think the funding that we have seen in the ARRA Act and its support for things like green infrastructure are really a trend in the right direction.

Using our own history as an example, about 69 percent of the \$19 billion that we spent in the last 7 years have been used to fund construction for Federal and State mandates and they have contributed to a 24 percent increase in water rates over that same period.

Many of the increases that I just mentioned don't always go where the cities most needs it. For example, there are still thousands of New Yorkers who lack sanitary sewer and tens of thousands of New Yorkers who lack storm sewers, completing the full build out of that system is an important priority for New York. But we have had to defer many projects until legally mandated work is complete. For example, as a result of a mandate, we recently completed construction on a \$422 million tank to deal with combined sewer overflow that will have a valuable but extremely limited impact on one tributary in New York Harbor.

What we are looking to do is move forward with a broader green infrastructure approach and Council Member Marcason mentioned that. And we think that the fact that the 2009 ARRA allowed up to 20 percent of the \$4 billion that was put in the State revolving funds to be used for green infrastructure is a great step in the right direction.

The ultimate success, though, is going to depend on the willingness of our regulators at the State and Federal level, that is, the EPA and State DEC, to embrace these new methods in a collaborative and flexible approach rather than a one-size-fits-all approach.

Now, the grand provisions of ARRA were an extremely welcome return to the pattern of Federal environmental funding that drastically declined at the end of the 1980's and essentially ended at the end of the 1990's. We received \$219 million, as I noted, and we are moving forward with nine separate projects that are going to reduce our energy emissions, make our plants more efficient, and provide update critical infrastructure that really wouldn't have moved forward at all, but for this critical funding.

Overall, ARRA has allowed DEP to move on projects that would have been shelved or delayed. However, using the State Revolving Fund Loan program did create certain difficulties as it has restrictions and administrative burdens that don't allow us to use money as flexibly as we would like to.

If Congress considered a second ARRA program, we recommend making it a 100 percent grant program and perhaps add an element that provides for direct grants to localities like New York City, with the demonstrating capacity to put dollars to work quickly and create jobs and provide the public benefit, Madam Chair, that you and Mr. Boozman talked about at the beginning of the hearing.

We also recommend an extension of the Build America Bonds program which is providing our water and sewer system with more cost effective financing for capital projects.

Before closing, I just want to say a couple quick word about the Water Quality Investment Act of 2009, which embodies a comprehensive approach to clean water initiatives and infrastructure financing. The reauthorization of 13.8 billion over 5 years recognizes the range of needs, large and small, for water and wastewater systems. We support the 30 percent SRF funds to be used for forgiveness of principle and negative interest loans. We support authorizing 2.5 billion over 5 years for grants for combined sewer overflows. And we support the elements for water conservation, which were important parts of the Mayor's PlaNYC program. Our blueprint for a sustainable city that has become a national model.

We are pleased to see that the legislation seeks more research about pharmaceuticals while the presence of the potential pharmaceutical and the water supply has raised a lot of attention lately. It is critically important that any new regulation in this area be based on demonstrated public health need and not simply the availability of monitoring or treatment technology.

In conclusion, I believe that ARRA has been a success when it comes to projects undertaken by DEP. Those funds allowed us to create jobs and productive assets that serve the public for years to come. However, much remains to be done to ensure that Federal standards, if they are to be imposed, actually achieve water quality and public health benefits and come with the funding necessary to carry them out. Otherwise, unfunded mandates will continue to substitute Federal and State judgement about system needs for the judgment of cities like New York with expertise and experience to make smart investments that have a large public health return with lowest cost. Thank you very much for the opportunity to testify and I look forward to your questions.

Ms. JOHNSON. Thank you very much.

Mr. Hawkins.

Mr. HAWKINS. Good afternoon. Good afternoon Chairwoman Johnson, Ranking Member Boozman, members of the Subcommittee of Water Resources and the Environment. My name is George Hawkins, the general manager of the DC Water, the utility that provides water to every building in the District of Columbia, including this one. One of my goals some day is actually to have D.C.'s finest up here as the drinking water and can talk to you about that in the days ahead.

I am delighted to be here to testify with one fundamental message: It is my thesis that a dollar spent on water and wastewater infrastructure is the single best Federal dollar that can be invested in this country, and I would like to do a very short summary to suggest why.

First is to the benefits of using DC Water as the example. Number 1, this is a dollar that achieves vital environmental improvements. In the Chesapeake Bay, we know how much attention has been applied to the Chesapeake Bay. There is only one place that achieve the 2010 goals, clean-up goals for the Chesapeake Bay nitrogen removal, that was the DC Water's Blue Plains Treatment plant just in the southern part of the city. That was a billion dollar investment over the last 10 years made by the Federal Government, made by Washington, D.C., and with jurisdictions in Maryland and Virginia, able to achieve the goals for 2010.

We will also achieve with a \$900 million expenditure the next level of goals for the Chesapeake scheduled for 2015. So there is direct and immediate environmental benefits to water features and natural resources that are absolutely vital to us as a society.

Second is the service which provide. There is no job, there is no business, there is no building, there is no home that can get a certificate of occupancy without adequate connection for water and sewer service. That is one of the only obligations you must have, and without with you cannot get in a building. I have been there because I used to run the permitting agency. In that respect, I believe water and wastewater can take some credit to every job in Washington, D.C. Because they all rely fundamentally on the service we offer. But the second feature of that is I regularly attend when we have disruptions to service, I will discuss in the minute the age of the system in our fair national capital city, but when this service is not available, there is an immediate negative consequence to every homeowner, to every business and to every neighborhood when you are not able to provide water and wastewater services. The restaurants close, the hotels close, the businesses close, because they can't stay open without our service. There is a fundamental service.

Third is obviously the jobs, DC Water has 1,200 members of what I call team blue. We have five unions and one of the largest blue collar workforces in Washington. We have direct connection to training programs in the high schools in the city as well as the University of District of Columbia. These are not only jobs, but many of these jobs are entry-level positions that are accessible to people who are not always part of the rest of the job market. We offer positions and opportunities that are unique in this city and are growing. Over the next 10 years, we anticipate we will be hiring more through contractors, 7 to 900 more jobs in order to continue improve infrastructure the city. So a dollar spent on infrastructure provides environmental benefit, provides services and provides jobs.

What is the need? I will use our fair city as the example. The average age of the water pipes that serve this building and every other building in this city is 77 years. Ten percent of the pipes in the city were put in before 1900, 3 percent before the Civil War. It is no wonder that they break with regularity. We have, as a country, not been investing the funds needed to update these absolutely critical infrastructure. And who is surprised when the line straight up Pennsylvania Avenue 21st just 2 weeks ago broke when it was put in the ground in 1857, that is an infrastructure need that is critical, it is daily and in every major city in the United States.

We are doing our part. Of course, we seek support from the Federal Government. I just finished 20 outreach meetings all over the city including one last night. We have proposed a 12-1/2 percent rate increase for our residents in D.C. to provide this service; that is no small task in the middle of a recession, but that is what we feel is necessary in order to improve the infrastructure that is so vital to all of us.

And last, your role. There is no question in our mind that funds that come to us with the clean revolving fund as well as the drink-

ing water revolving fund as supplemented by ARRA funds had been integral to our ability to provide this service, to drive additional jobs and do additional projects and to lessen the burdens on our rate payers. It is city agencies, in many respects, that are doing a lot of these expenditures. And as much as other lobbies and otherwise legitimately raise concerns about costs to their members. Fair enough. But remember who has been bearing the burden in this city and so many others, it is some of our lowest income people who have suffered these rate increases, including here in Washington, DC.

I stood in front of an audience last night presenting 12-1/2 percent increase, this was after a 9 percent increase last year and a projected 9 percent increase next year. So we are stepping up at the local level with the people who serve us, and we are so grateful of the support that has been supported in the past from the Federal Government. But as I have suggested, the dozens, we have 97 projects ultimately that are planned, that are connected to stimulus funds, not as many as we would have liked have been initiated, they are all under contract. The permitting process, I am now actually the regulated party, I was the regulator for years. We have been waiting to be able to get some of our permits, but there will be hundreds of jobs in this city connected to people who need them, driven by Federal funding that will then support the city that we so much love. So I am grateful for the opportunity, I will be delighted to answer questions. Glad to be here today, thank you.

Ms. JOHNSON. Thank you very much.

Mr. Vander Molen.

Mr. VANDER MOLEN. Thank you, and good afternoon, Chairman Johnson and Ranking Member Boozman and other distinguished members of this subcommittee. It is my pleasure to appear before you today both as a small business owner who is directly affected by the water infrastructure investment, and also in my capacity as the 2010 AED chairman. AED is an international trade association that represents independent authorized distributors of construction, mining, forestry and agricultural equipment. And Vermeer Midsouth is a family-owned company which headquarters in Memphis, Tennessee, and we rent, and sell, and support Vermeer construction equipment throughout the four States of Mississippi, Arkansas, north Louisiana and west Tennessee. And of course, we have a couple of locations in Congressman Boozman's areas of Russellville and Springdale.

I appreciate the opportunity to come before this subcommittee to discuss how equipment distributors and other small companies are affected by the State Revolving Fund programs and water infrastructure investment in general. I would like to really take my time to highlight three key issues.

First, the construction equipment industry has been affected as much as any other in this economic downturn. For us, the recession has been nothing short of a depression. A study conducted last year by Global Insight for AED and the Associated Equipment Manufacturers painted a very grim picture. From 2007 to 2009, spending on construction machinery fell 50 percent. Over the last 3 years, equipment manufacturers distributors and maintenance providers shed 257,000 jobs, representing a stunning 37 percent of our work-



force. The effects of our industry downturn have been felt well beyond the dealer yards and manufacturing plants. Global Insight also estimated that the equipment industry depression has cost an additional 274,000 jobs in a broader economy. In total, the downturn in the equipment industry has cost 550,000 jobs nationwide since 2006.

My second point is that the water infrastructure investment including a multiyear reauthorization of both the drinking water and the Clean Water State Revolving Fund programs is one of the keys to the recovery in the equipment industry. An estimated \$0.12 of every dollar invested in water infrastructure construction is used by contractors to buy and rent and service equipment. The Water Quality Investment Act, which would authorize more than 14 billion over 5 years for the Clean Water SRF would create an estimated 1.68 billion in market opportunity for our members over the life of that bill.

I would commend this subcommittee for its leadership on this important legislation which will put people back to work in well paying, manufacturing and sales and product support jobs in communities throughout the country.

My third and final point is that increased water infrastructure investment at the Federal level will have benefits well beyond the equipment industry. Last summer, the Clean Water Council of which AED is a leading member announced the results of a highly anticipated study regarding the economic impact of water infrastructure investment. Specifically, the report showed that a \$1 billion investment in water infrastructure generates 2.87 and 3.46 billion in economic activity, and creates more than 26,000 new jobs. About half of those jobs are in industries outside of water and wastewater construction, further illustrating the broad reach of the initial investment. Each \$1 billion invested also generates approximately 82.4 million in State and local tax revenue.

In addition to the positive economic impact, the increased water infrastructure investment will have significant environmental and public health benefits. EPA recently released a new clean water sheds needs survey which estimated that as of January 1, 2008, national capital investment needs for wastewater pollution control are \$298 billion. Those needs are in addition to the 334 billion investment EPA estimates to repair and rebuild our Nation's water infrastructure.

To sum it up, our Nation faces an unparalleled infrastructure crisis. Immediate and aggressive congressional action is necessary to ensure that our water infrastructure systems do not deteriorate further, and that the Federal Government has the resources it needs to address the crisis. The problem will be only more expensive to solve as the time goes on. It is for the foregoing reasons that AED urges Congress to rapidly enact long-term sewer and drinking water SRF reauthorization bills to dramatically increase investment and to create sustainable revenue strains and funding mechanisms.

We look forward to working with the members of this subcommittee and with your House and Senate colleagues in a bipartisan manner to achieve these goals. Thank you for the time to share with you, and I would be glad to answer any questions.

Ms. JOHNSON. Thank you very much.

Mr. Soth.

Mr. SOTH. Thank you, Chairwoman Johnson, Ranking Member Boozman and distinguished members of the Water Resources and Environment Subcommittee. My name is Jeffrey Soth. While I am the assistant director of the legislative and political department for the International Union of Operating Engineers, I am testifying today on behalf of the National Construction Alliance II, a partnership between two of the Nation's leading construction unions, my union, the Operating Engineers, and the United Brotherhood of Carpenters and Joiners.

The two unions of the Alliance represent nearly 1 million workers, many of the same workers who built the Nation's clean water infrastructure. We sincerely appreciate the opportunity to join you today and testify.

Chairwoman Johnson, NCA II sincerely values the commitment made by Congress and the administration in the Recovery Act to reenergize the national economy through infrastructure investments, particularly clean water investments. Those outlays, quite literally, pulled the construction industry back from the precipice. The sector, however, is still on the ledge. But one thing is perfectly clear, more can and should be done by Congress to put America back to work through clean water infrastructure investment. Construction spending was down over 13 percent in the first 4 months of 2010 as compared to 2009. And as you know, 2009 was one of the worst years on record for the industry.

Last year the unemployment rate peaked at over 21 percent. This year, the employment rate in construction reached over 27 percent. The unemployment rate today is still over 20 percent. Since its peak in 2006, construction employment has fallen by over 2.1 million jobs, or 28 percent of the construction workforce in the industry.

Unfortunately, the same holds true for employment in the water and sewer systems sub sector of construction. I refer you to the chart on the last page of my testimony where you can see the precipitous drop in employment in the last 2 years from 2007 to 2009. Employment in the subsector dropped by over 21 percent between those years.

Obviously there are thousands of carpenters and operating engineers' families behind those numbers. The NCA II firmly believes that the best way to restart the ailing construction economy is to get Americans back to work by building the Nation's wastewater systems. These investments will employ thousands of construction workers, clean up the Nation's environment, improve the public health of Americans, and accommodate the country's growing population. The Nation simply cannot afford to keep losing construction jobs. The future of the industry is quite literally at stake.

In partnership with our construction contractors, the carpenters and operating engineers maintain apprenticeship and training programs to train the next generation of skilled craft workers. The apprenticeship model delivers careers, not merely jobs for hard working members of the NCA II and other construction crafts. But in order to bring an individual apprentice through their program, which for carpenters and operating engineers, typically consists of

3 or 4 years of on-the-job training and classroom instruction there must be continuity of work. The apprenticeship model indeed depends on employment and on-the-job training. Widespread unemployment jeopardizes the future of the industry making it impossible to deliver their required on-the-job training hours for a worker to develop his or her skills. Further congressional action is necessary to reverse this trend.

Madam Chairwoman, despite all the committee's hard work, the Nation's water infrastructure needs call out for further investment. There are four steps that NCA II recommends that Congress take to restore employment in water and sewer construction. First, please continue to exercise your aggressive informal oversight of States and local governments, encouraging them to undertake the construction spending that Congress devoted to them in the Recovery Act. Members of the NCA II and other construction workers in Louisiana, for example, where one-third of clean water projects are not yet underway, need you to bring pressure to bear on the State government that it has failed to put your investments to work.

Second, make another investment in clean and safe drinking water in the annual appropriations process. Last year's appropriation process more than doubled the fiscal year 2009 appropriation, clean water infrastructure and construction workers urgently need more, and the sooner the better.

Third, pass the Clean Water Act State Revolving Fund Reauthorization. As the committee is painfully aware, it has been over 20 years since the last authorization was enacted into law. Despite bipartisan support and passage of H.R. 1262 in the House Chamber and bipartisan support for S. 1005 in the Senate Environment Public Works Committee as it was passed, the legislation awaits Senate floor action. We are closer than ever to reauthorize the program. We would encourage you to seek immediate passage of the bill in the Senate without further delay.

Lastly, NCA II urges you to support the bipartisan Water Protection and Reinvestment Act, H.R. 3202. As you know, it delivers a water trust fund with dedicated revenues for clean and safe drinking water investments. This approach would commit long-term financing to the Nation's water infrastructure needs while relieving pressure on general revenue.

Chairwoman Johnson and members of this subcommittee, we must not lose momentum on the Nation's economic recovery, the economy, the construction sector in particular is still too fragile. We are eager to work with you in what is left in this 111th Congress to advance the cause of putting America back to work through clean water infrastructure investment. Thank you very much.

Ms. JOHNSON. Thank you very much.

Mr. Holloway, I know your time is very short, but I would like you to elaborate just a little bit more on the time in which the money was received and how it interfered with your work schedule and what can we do to improve that. I know that recovery money came at a time that we didn't have much choice, and it had to be rapid turnaround. That might be what you are talking about.

Mr. HOLLOWAY. Well, I want to make sure.

In terms of the ARRA funding, we really worked closely with the State, and we were able to get projects funded. In fact, the bids for our work came in a little bit lower, so we were able to fund four more projects that initially we wouldn't have been able to fund. So, for us, that is good.

Our main concerns with the funding mechanism are flexibility and, overall, the ability to make investments that we think are going to the greatest needs in the system. So, while the State Revolving Funds are a good mechanism, number one, making more of the available moneys—grants—we believe 100 percent grants is the way to go. Then in terms of the State Revolving Fund, while it is a useful mechanism, doing direct grants to cities like New York City that are responsible, really, for maintaining the ultimate infrastructure we think would be an improvement.

Ms. JOHNSON. Thank you very much.

I will call on Mr. Boozman.

Mr. BOOZMAN. Yes, ma'am. Thank you.

Again, I know you have to go. I enjoyed your testimony, both your written and then your stated testimony.

You know, I think what I am seeing is that—you know, as was said, you know, the Federal standards aren't actually achieving the public benefit in all cases, and you know, you mentioned that a majority of your capital spending over the last 8 years was Federal mandates. Many times those mandates do not appear to be—you know, you are there on the ground, you know, knowing your city as well as anybody and trying desperately, you know, to keep rates down, and you do what you feel like is in the best interest of the public. Yet those don't seem to match up many, many times, and we see that, you know, in the huge area that you have got, and then you are seeing that all throughout America.

But as we commit to increasing funding, it does seem like there is a black hole out there that doesn't address, as Mr. Hawkins pointed out, you know, these 1860, you know, areas that need to be replaced and that, you know, we are saying that we have got to get a standard that can—you understand what I am saying.

Before you leave, can you just follow up on that a little bit? Then we will visit with the rest of the panel about it.

Mr. HOLLOWAY. Absolutely. Thank you for your consideration. I apologize for having to get back up to New York City, but I think there are a couple of things in terms of what I said in the testimony.

First, we think that our system has incredible infrastructure needs. As Mr. Hawkins talked about, he has 1,200 employees; we have 6,000; we have 14,000 miles of pipe; we have 14 wastewater treatment plants, each of them with 5,000 moving parts. The state of good repair of that infrastructure and Federal funding—not to do all the work, but Federal support for decisions that we make at the local level we think is, number one, the best way to achieve what we need to do, which is treatment; and then achieve water quality standards.

In terms of the standards themselves, there are certain investments. Really, this becomes an issue of scale, particularly in New York City, where a standard will be set. And because it is a national standard, even if it is delegated to the State, you know, the

State has the obligation to enforce what the Federal standard is. Then even if you are able to demonstrate through analysis—and we do some of the most rigorous analysis out there—that a particular investment either isn't going to achieve the water quality benefit or isn't needed, because the public health risk isn't there, we would rather dedicate those funds then to dealing with the water maintenance and the wastewater treatment plants. We are constrained. We can't do that.

Mr. Hawkins talked about raising water rates 9 percent last year and 12.5 this year. We just had to raise rates. We are a couple months ahead of you, I guess, at 12.9 percent. That was the fourth double-digit year of increases.

I think one important thing with mandates is that Mayor Bloomberg has made unprecedented investments in water quality, and he is going to continue to do so. With PlaNYC, he wrote the book, in a way, on creating this sustainable blueprint; but what mandates do is they constrain your time, the time in which you have to build and make certain investments, and they tend to look at water quality issues in this mandate and enforcement way that doesn't take the overall needs of the whole system into consideration.

So a reauthorization of State revolving funds, a grant program that takes those things into account and gives maximum flexibility to localities but also looks at the overall regulatory picture.

I think, you know, the pharmaceuticals is an interesting example for us. We made a substantial investment in looking at our watershed, and we did a level of testing, and they developed, basically, a new science to do a level of testing to detect at the parts per trillion.

Now, if you read the language in the bill about pharmaceuticals, it could be interpreted at some point down the line to say, well, the intention was to actually, you know, prevent these or treat them in the system, but that should only happen if there is a demonstrated need to do that treatment. Otherwise, you know, we should try to make sure that the dollars go where they are needed.

I think, overall, we share the same goal as the committee, as the EPA, as our regulators: clean drinking water, clean waterways. The mayor wants to open up 90 percent of New York City's waterways to recreation, but we need the maximum amount of flexibility to do it and on a timeline that is affordable. You know, in water investment, in the water investment world, the reality is, if it happens this year, next year, you can do things over a time period and still achieve the overall goals.

Ms. JOHNSON. Thank you very much.

What we are going to do is ask the members who have questions to ask the questions. Could you submit the responses in writing so that you will be able to go?

Mr. HOLLOWAY. Absolutely. Thank you.

Ms. JOHNSON. First, what I would like to have you elaborate on is the cooperative partnerships and how we could improve that.

Congresswoman Edwards.

Ms. EDWARDS. Thank you.

I just have this one question for Mr. Holloway, and it has to do with your point about flexibility.

I also want to submit for the record a letter from the Washington Suburban Sanitary Commission, our system that really talks about wanting flexibility. I was curious from you what kind of flexibility you think that you need that you don't have now in terms of your ability to spend and use Federal dollars.

Mr. HOLLOWAY. Well, flexibility for us, I think, works on two levels. One is flexibility in terms of spending the funding, and the way that that works right now—the way it worked in the American Recovery and Reinvestment Act is the entire \$4 billion went through the State revolving funds. The State revolving funds have set up—each State differs in terms of the rules and the requirements and the level of environmental review that you need to go through for a project to qualify.

So, while one thing you can do is work with the State to make those regulations as flexible as possible, another way to do it is to create parts of the funding that can go directly to the localities. You know, we have seen this in the Homeland Security funding as a model that has worked where you have both, you know, going through the UASI funding, going through the State executive, and part of the funding going to the major UASI cities. That has been effective. So we think a mix is a way to get the flexibility.

For example, just as an example, because in New York City, as I said, we have 14,000 miles of water and sewer main, we open up streets all the time. We try to coordinate our water and sewer replacement projects with our Department of Transportation and, in some cases, utility projects. We don't do an individual environmental review. Every time we open up a street and replace a water main, we do a lot of environmental reviews. We don't do them for those projects. It just so happens that the New York State rules require an environmental review, so none of the clean water money can be used for those kinds of projects. Now, the Federal grant doesn't establish that restriction, but by putting it through the State revolving fund, that restriction then is raised for us.

So that is flexibility on the funding side. I didn't want to—I saw you were——

Ms. EDWARDS. No. I am just curious as to whether you have encountered any issues with respect to EPA requirements around disadvantaged communities.

Mr. HOLLOWAY. Do you mean in terms of the Davis-Bacon or——

Ms. EDWARDS. No, not disadvantaged businesses. Disadvantaged communities and applying Federal funding.

In the ARRA, for example, there were requirements for serving disadvantaged communities, and that impacted at least our local ability to set priorities in a different kind of way. And I just wondered if you had encountered any of those same issues.

Mr. HOLLOWAY. To my knowledge, we didn't encounter that as a particular issue in terms of the projects that we could fund. I think that—but let me get back to you on that. I want to make sure that we—because I know we were able to ultimately define the projects that were able to take advantage of all the funding that was made available to us, but I can get back to you on that.

Ms. EDWARDS. Then, lastly, what do you perceive as your flexibility in being able to set your own priorities for Federal funding

rather than have those, you know, set either outside or by other kinds of regulatory requirements?

Mr. HOLLOWAY. Well, right now, for example, New York City is, as I am sure many—the council member and I were talking before this about consent orders and meeting requirements.

One of the things that has been certainly at the Federal and State levels is the way that you approach, for example, combined sewer overflows, which is through tanks, building what is now called “gray infrastructure” and putting it in the ground.

You know, the one example that I have been using over and over since I came to the agency is we have a 50-million-gallon tank that we are about to turn on in Brooklyn that cost \$422 million to build. Now, that will have a substantial impact on one tributary in New York Harbor, and for that tributary that is undoubtedly a good thing, and you want to stop as many CSOs as you possibly can.

However, when you do the modeling and you ask, “Well, for that \$422 million, what is the overall water quality impact in the harbor in New York City?” the improvement is projected to be less than 1 percent.

So then the question becomes, “Well, what would you do with that half billion dollars?” which is basically what it is. What we are looking at in cities—I think D.C. is making some move here, and Philadelphia has put in proposals.

We think green infrastructure and trying to do more to capture, at the source, stormwater and being able to make these investments on a timeline. A lot of these technologies have to be tested. You know, of New York City’s permeable surfaces, we don’t have much permeable surface. In fact, we are, you know, creating the green infrastructure projects that will actually, meaningfully, capture stormwater and deal with it. It is something that I actually brought in a new commissioner for, sustainability, whose primary job is to deal with this issue. Now, in order for us to succeed, the funding is starting to be there. I think the ARRA funding that was specifically made available for green infrastructure is a great signal.

On the regulatory side, though, there has to be a willingness to say, Well, wait a minute. If you are going to be making these investments, then green infrastructure can not only give you the water quality improvement but also the long-term public benefit of a park or a swale or trees or all of the things that those kinds of investments can provide.

Are we going to be able to have the willingness to open up the current agreements and orders and negotiate timelines and frameworks that are going to enable us to try, fail and try again, but ultimately get to the same water quality standard in the end, which we think we can do? That is a big challenge, and EPA has made some good—we have heard some good things from the EPA on that, but the proof is really going to be in the pudding there.

Ms. JOHNSON. Mr. Holloway, you passed the time for you to go.

Mr. HOLLOWAY. Well, thank you very much.

Ms. JOHNSON. If there is any other testimony you would like us to know about, you may send it, and we will be happy to receive it.

Mr. HOLLOWAY. Absolutely. Thank you.

Ms. JOHNSON. Thank you.

Now we will go back. Thanks to all of you for your patience in allowing him to complete his work and to get back.

Before we go to Mr. Boozman, our chair of the full committee has come in. He is always very knowledgeable, so I am going to recognize him.

Mr. OBERSTAR. Thank you, Madam Chair.

I just want to sit here and listen and take in the testimony. I wanted to thank the Commissioner from New York for his contribution and to welcome City Council Member Jan Marcason and to thank her for the warm welcome I received in Kansas City, the city of water and fountains and beauty. I had never visited before, and I was treated to a great eye-opening experience. Thank you very much.

I look forward to hearing your testimony.

Ms. JOHNSON. Thank you.

Mr. Boozman.

Mr. BOOZMAN. Mr. Hawkins, you testified about all of the areas and of running into different roadblocks, you know, as far as getting your permits and things. It sounds like you are an old permitter, and now you are, you know, on the other side of the fence. You know, we have statistics about how long it takes to complete a road, you know, once the project—and, you know, with all of the hoops you have to jump through. You know, it might take 9 or 10 years, you know, to do that.

Tell us about, you know, the similar stuff that goes on in getting through the permitting process.

I guess the other thing I would like to know—and you all are welcome to jump in—is how much does that cost the system, as far as in the road situation, if we could get rid of some of the duplication, you know, some of the permitting process, and not do away with what we are trying to accomplish, you know, in protecting the public, protecting the environment, doing things right? You know, if we could streamline the process, how much money would that save you as you try and grapple with these difficult situations?

Mr. HAWKINS. Thanks for that question.

If I may just for one second respond on the issue of my compatriot from New York, I would state that, as to his notion that direct grants to cities offers more flexibility, in fact, because the District of Columbia is both a city, a county and a State, that is, in fact, what has happened here, and we have had great flexibility as a result. So it does, in fact, work that way.

The last time I actually testified before this hearing, I was here as the director of the Department of the Environment, which regulates my current agency. I can't believe some of those decisions I made when I was a regulator, but we took 80 percent of the Clean Water revolving funds that we have coming into the city of the District and are distributing them to projects, greening everything you can imagine. We are greening police stations, parks and rec centers, libraries, median strips, roadways.

We have this multiplicity of projects because of the flexibility we were able to administer since we were a city directly gaining money and distributing it. So I can testify that, on the only occa-



sion like this where the city is also the State, it does work well and it enables flexibility, so it is a good thing.

As far as the permits, it is a fascinating question. Since you know the city, on 17th and 18th Streets, going right up through Adams Morgan, there is a lot of work that has been going on along those streets for a long time. The way this works is we, DC Water, produce our capital program to the District Department of Transportation 2 years in advance so they can plan ahead so that, when we are doing roadwork in the street or if they are working in the street, you coordinate it.

Of course, ARRA—we aren't complaining, but that came in in the midst of the process outside of the standard planning system. What started to happen is that we would initiate a project that was ARRA-stimulated off schedule, and we would end up with a project that was not coordinated with DDOT, not because anyone had done anything wrong.

So a number of the projects got held up. That the standard permitting system is done in advance is for good reason: so that you don't end up with DDOT resurfacing a road and then us coming in 2 months later and digging it back up again and replacing the pipe. We want to do that both at the same time.

So there have been challenges in trying to match up the existing permitting system, which is done with many years of advance preparation with a system that is putting new money in on a very short time frame, for obvious reasons.

As to the capacity to improve the speed of decisions as far as how much money it would save, there is no question we spend a lot of money on coordination. In fact, I just authorized—we are going to put on the Web here in the District a visual. We just authorized it with the Department of Transportation. You or anyone else will be able to look at the city and any street on a GIS basis and see every project that is coming visually. So everyone becomes an overseer of us because they can all check whether or not we have managed and planned, and we are hoping that that is going to substantially increase the efficiency of being able to integrate new funding along with existing funding.

The last point that is interesting about the District is, in the study, you have heard much about the \$300 million that EPA has estimated for this massive need for infrastructure. The highest per-capita need in the United States of America for wastewater infrastructure is Washington, D.C.—\$4,315 per capita. That is not per customer. That is per capita in Washington, D.C. in order to improve the wastewater infrastructure for this city.

So the need is just—it is extraordinary what we face, and we have charted out rate increases, and they are constant for the next 20 years. This is going to be a system. We will get better at it because of its scale, but it is really daunting when you think of what we need to do for the public that we serve.

Mr. BOOZMAN. Thank you, Madam Chair.

Ms. JOHNSON. Thank you.

Congressman Garamendi.

Mr. GARAMENDI. Madam Chair, a couple of quick questions. Like our witness from New York, airplanes to the west coast are hard to find.

I want to go to section 220, which no longer is in the law, and get to the question of whether it makes sense to put it back in. A couple of things come immediately to mind. One is the question about the greening, which we heard both from New York and Washington. Those are and can be alternative water supply systems as well as sanitation issues. Certainly, this is an issue that we are seeing a lot of in California, which is where we have serious problems.

Also on the sanitation side, those alternate systems which once could have been funded by section 220, can supply potable water, such as recycled water, which, at least west of the Rocky Mountains, is a very, very big deal.

So I don't know if I have a question. I think it is just a comment to the chair and to the committee members that we give very serious consideration to reauthorizing the section 220 funding programs that they provide.

If there are any comments from any of the witnesses, we would love to hear them. I would have asked the fellow from New York to be very specific about exactly what kinds of mandates he does not need. I would suggest that he probably needs those mandates upstream of his water supply but maybe not downstream, since his system exits into the ocean. But that is a question I will ask him in writing.

Mr. GARAMENDI. So, if anybody would like to comment on the 220 section, I would be happy to hear that quickly, and then I am running.

Mr. HAWKINS. I would have a quick comment.

On the question of the flexibility for the mandates, DC Water has a \$3.8 billion capital campaign for the next 10 years. Half of that is dictated by Federal mandates. So fully half of what we must do is not for engineering excellence—although, we, of course, will employ it—but the first category is what we just have to do to comply with the laws, whether or not we would have done it otherwise.

When we prioritize all of our projects, the second category is health and safety. The third category is what we have to do for our fellow agencies. The fourth category is best engineering practices.

Now, we hope to do all four, but some might argue that because it is a mandate doesn't necessarily mean it is the engineering practice you would implement otherwise.

Mr. GARAMENDI. Excuse me. I did receive your correspondence in the bill, the water bill, that said it had to do with the storm drains and the sanitation drains being together and you needed to find some way to deal with that. The reason you need to deal with it is, when you have a storm you are dumping some really nasty stuff into the Potomac River.

Is that a mandate you would like to do away with?

Mr. HAWKINS. No. The mandate that we would like—well, not “do away with,” but open to flexible interpretation.

At the moment, our response is to combining sewers. Of course we want to respond to that. There are 3 billion gallons, most of which go to the Anacostia, actually, not to the Potomac River—Rock Creek. But the mandate is the solution. The solution, which is a consent decree, is the underground concrete and steel caverns. We are actually just about to start a 26-foot boring all the way up

the Anacostia River, from down at Blue Plains up to Poplar Point and then to RFK.

The question is, can we open up—there is the MS4 permit system becoming more stringent——

Mr. GARAMENDI. Excuse me.

Mr. HAWKINS. Yes.

Mr. GARAMENDI. For all the witnesses who are interested in the mandate issue and our fellow from New York, if you could, be very specific about how the present mandates impact you and how you would change the law.

Mr. HAWKINS. OK. Sure.

Mr. GARAMENDI. I am out of time in many, many ways. I thank you so very much.

Madam Chairman, thank you for your courtesy.

Ms. JOHNSON. Thank you.

Ms. Marcason.

Ms. MARCASON. I am going to have to get back to you on the specifics.

When we created our overflow control plan, we made it an adaptive plan, and I think one thing that we—with over 25 years of the plan, we hope that there are a lot of new emerging technologies that we can take advantage of. But once you have a consent decree in place, you are locked into the technology that you set out in your plan.

So another part of that is we need to make sure that we can modify our plans going forward to make sure that we are able to capture the benefit of new ideas, new technologies, new thought processes that are coming down the road.

Mr. GARAMENDI. I have 18 seconds remaining here.

That specific kind of information, how would you change the law to give you that flexibility? Understanding that the consent decree—you know, it is legal, but you need the flexibility. So how would you change the law to accomplish that? That is what I would like to have because, ultimately, that is what we must do here.

Ms. MARCASON. Right.

Mr. GARAMENDI. Thank you, Madam Chair.

Ms. JOHNSON. Did you want to answer?

Ms. MARCASON. I would rather research that and talk to the people back at the National League of Cities and in my community. I am sure we could come up with some good suggestions, though, so I appreciate the opportunity to do that.

Ms. JOHNSON. Mr. Chairman.

Mr. OBERSTAR. Madam Chair, if I may intervene at this point so I can get off to another matter dealing with the oil spill legislation, I very much appreciate this panel. I have already spoken of my session with Ms. Marcason in Kansas City and, Mr. Hawkins, of your splendid stewardship here in the District and of your contributions on the Chesapeake Bay cleanup, and of the contributions of the other two members of the panel.

What is the age of the oldest sewer and the oldest waterline in the WSSC system?

Mr. HAWKINS. The WSSC I can't speak to. The WSSC serves Montgomery and Prince George's.

Mr. OBERSTAR. Sure, the metropolitan area. Right.

Mr. HAWKINS. And DC Water—actually, we serve WSSC. A lot of their flow comes from the Blue Plains plant. We have assessed the age of our waterlines. Now, sewer is much harder to tell. They are deeper in the ground, and there is not as much pressure. We have waterlines in this city that were put in before the Civil War, and we have a report that I can send you that gives you the age of the waterlines. As for the sewer lines, most of our lines, we are not sure how old they are, so we don't have as clear an answer.

Mr. OBERSTAR. Before the Civil War. Some of those are probably still wooden lines.

Mr. HAWKINS. We believe we have gotten all the wooden lines out of the city distribution system. I can actually show you some as kind of a tour, but I think we have gotten all the wooden lines.

Mr. OBERSTAR. Do you still have clay pipe in the ground anywhere?

Mr. HAWKINS. Again, nothing that we know of having clay pipe, but we do have—we have pipes that are remarkably old, but we don't believe we have any clay or wood pipes in this system that we have.

Mr. OBERSTAR. Clay works very well in acid soil. We have concrete, and that tends to be deteriorated by acid.

I ask this because, all over the country, we are at a stage of—kind of over the tipping point of the capability of the existing water and sewer lines to serve the increasing demand for water and wastewater treatment. The replacement cost is just escalating enormously from the time when I started on the Hill as the clerk of the Subcommittee on Rivers and Harbors in 1963. It seems like an eternity ago. We were talking then about aging water and sewer systems, and we still are, and the replacement of those systems is still a very costly matter whether in real dollars, actual dollars or in updated dollar costs.

Since the Reagan administration terminated the grant program, it put smaller jurisdictions under greater financial pressure because, right at that time in 1981–1982, it was the point at which the wastewater treatment grant program was to switch from a preponderant 60 percent of the funds going to major metropolitan areas to 60 percent of the funds going to municipalities under 250,000, even under 50,000.

With President Reagan and his Budget and Reconciliation Act, I remember being on that conference committee so very clearly it is like it happened yesterday, and the Senate voting against our House proposal 5–4 without even asking the Democratic members on the Senate conference committee. They just voted it down and converted it from a \$6 billion grant program to a \$2 billion for 1 year and then converted it to a revolving loan fund. That meant that smaller jurisdictions, rural communities, had to shoulder a higher cost than they otherwise would have, had there been a grant program.

So now we have those costs continue, so there have been fewer dollars invested because municipalities had to borrow money at a higher cost and raise their fees. I know that in Minnesota, if you live anywhere within the seven-county Twin City Metropolitan Area, your water/sewer bill is about \$15 a month. If you live outside the seven and if you are in a municipality of 2,500 or less and

if you live outside Twin City Metro Area with the same sized population area, your monthly sewer bill is around \$54.

That is a huge jump, a huge cost, to people who have fewer options. Municipalities have less revenue and less opportunity to generate the debt retirement that they need to make the investments in their water and wastewater treatment systems. So there is the continuing age of our systems, the continuing vulnerability of older material to deterioration.

You mentioned, Mr. Hawkins, the blowouts that occurred, the big one on River Road. There was one just yesterday morning as I was driving in, and I heard the radio. Of course, I didn't have to avoid it, it was up in Montgomery County. And then you regularly have these blowouts in the District of Columbia.

How do you keep up with this? Is INI, infiltration inflow, sufficient technology? What else do you need to do to keep track of your system and then make the investments necessary?

Ms. Marcason, and I will ask our other two witnesses as well.

Mr. HAWKINS. I mean the average residential single-family bill in Washington, D.C. Is slated on September 1 to go up to \$61. In New York, the average monthly bill is about \$80, so they are very expensive. We have gone up, as I said, 30 to 40 percent over the last 3 or 4 years.

Our biggest challenge, I think, in many of the major cities in the country is that most of the systems that were put in—the average age of waterlines in Washington, D.C. is 77 years, so they were put in before most of our current ratepayers were here. What we have been funding for the last four or five decades is operation and maintenance costs of these systems—so how much it takes to keep it going, but not a capital replacement program.

So in Washington, D.C., our budget for capital improvement is one-third of 1 percent of the infrastructure in any given year, which means it would take us 300 years to replace the scheme.

The rate proposal that I have made for 2011, should the board decide to approve it, which they will do in September—I hope—will allow us to increase our capital replacement program to 1 percent a year, which would allow us to replace the system in 100 years. That is actually double the national average. The national average is a half a percent a year. That increased by triple when I looked at my compatriots to my left. We have got to hire people. We need trucks. We need material. These are jobs that can't be exported. They must be done on the line.

They are so meaningful to the neighborhoods and the people that are the recipients of the service. There is such a direct connection between our ability to raise the revenue to do fundamental infrastructure—the jobs, the equipment we buy, the trucks we purchase, and all the attendant pieces that come together.

The biggest single challenge we have—we have a fair amount of knowledge of this system. We have tested it. We know what we need to do—is converting the awareness of our ratepayers to capital cost replacement, which literally hasn't been on most bills for a long period of time. At the same time, we are also doing these giant, long-term control plans, which—your city has done a remarkable plan, but it is \$1.5 billion or \$2.5 billion.

Ms. MARCASON. \$2.5 billion.

Mr. HAWKINS. Ours is \$2.8 billion. That is on top of the capital replacement. So it is expensive even when you are innovative, and you add these costs together, and they become extraordinarily daunting to cities of every size.

Mr. OBERSTAR. Is the revolving loan fund of use to you, then, in that construct?

Mr. HAWKINS. Absolutely. The projects that we are doing—because of Washington, D.C., the drinking water revolving funds, for example, come directly to DC Water, and we are using those funds to replace valves. It is very operational. We are getting out into the system and making operational capital improvements to the system that we would not have otherwise made. So when you see a project—when you are driving around town and you see someone digging down, replacing a valve, that is likely a stimulus project.

Mr. OBERSTAR. Oh, I clap and I cheer when I see that. In fact, I would like you to build all those water and sewer lines about 2 feet aboveground so people will bump into them and know what we have done for them, because we bury our good deeds in the water and sewer systems.

Mr. HAWKINS. Yes, that is true.

Mr. OBERSTAR. The public never sees them.

I think Mr. Boozman will fully appreciate that and will agree with me on that. We want constituents to know what we have done on their behalf.

Tell me, before I go to Ms. Marcason, where is the Potomac swimmable above Blue Plains?

Mr. HAWKINS. I don't know the answer to that question. It is not swimmable for its length—well, actually, when I was at the Department of the Environment, we had an exception for professional athletes in triathlons; but otherwise, the water in the Potomac or any of the waterways in the District are not swimmable. And I think that is true fairly far to the north, but I am not sure exactly where the cutoff is.

Mr. OBERSTAR. Certainly to Little Falls of the Potomac, the pumping station.

Ms. Marcason.

Ms. MARCASON. I think, you know, cities and towns all across America have the same issue.

Our water pipes are 1850's. Men went off to fight the Civil War, and came back and completed our Main Street water/sewer system. So it is not just the water system. We have aging infrastructure on our roads, in our buildings, and so it just compounds the issue. But we have increased our rates 44 percent since fiscal year 2008 in Kansas City, and we have double-digit rate increases scheduled throughout our overflow control plan for the next, probably, 5 to 7 years. Depending on the success of our project, you know, that could be extended. I mean we hope to see a leveling off, but then at the end of the project, if we do have to build those big tunnels, they will jump up again.

So I think that is part of the reason we are trying to make sure these green solutions could be an option. They are, hopefully, less expensive, but we are having to do a lot of testing. You know, they are a little bit untested. We are doing a lot of modeling right now. I think that is why we got an additional 5 years. We got 25 years

to do our plan. Part of that is so we can gauge the effectiveness of the massive project we are doing, and if that is true and since it did save us \$10 million in one area, we hope that is something that could be replicated, and it could be a way that we could address this in a more cost-effective manner.

Mr. OBERSTAR. Well, permeable parking areas and shopping centers and sidewalks and even roadways—or at least shoulders on roadways—are very important, very critical support mechanisms for our dealing with runoff.

Ms. MARCASON. Right.

Mr. OBERSTAR. We are having vastly more runoff than we did 100 years ago or even 50 years ago. We have paved over more of America.

Ms. MARCASON. That is right.

Mr. OBERSTAR. It isn't an increased amount of rainfall; it is an increased amount of runoff. We need to save that water. We need to get it into groundwater, and so these are very good solutions.

Mr. Vander Molen, that doesn't do much for equipment dealers, does it? You want to have more of your customers buying equipment and putting it to work.

In the stimulus program from our committee of, roughly, \$4 billion, 100 percent of that money is out. Let me just check my report card. Of \$3.8 billion, 100 percent is out to bid; 1,962 projects out to bid; 1,957 are under contract; and for 1,884 projects work is underway. So your equipment is working, and there are some members of the operating engineers who are out there operating that equipment.

Now, if the Senate were to rise from its slumber and pass something and move the Clean Water Revolving Fund, what would that do for your sector and your members?

Mr. VANDER MOLEN. If I could say so, our industry has got a lot of unused resources right now that are ready to go to work. With jobs the way they are and with infrastructure the way it is, our equipment and facilities and inventories—they are ready to go to work.

Congresswoman, I have to excuse myself. I have got a plane to catch to go back to Jackson, Mississippi. If you have got other questions that you would like to address to me, I would be glad to respond to them in writing, but I really appreciate the opportunity to be a witness here at this subcommittee.

Mr. OBERSTAR. Thank you for your splendid contribution. We appreciate that.

Ms. JOHNSON. Yes, thank you very much.

The only thing I would ask is whether or not the equipment has changed to the point that it interferes with your investment or the technology you are using on these projects.

Mr. SOTH. Madam Chairwoman, the equipment improves dramatically from year to year. This is equipment that we are pleased to operate, some equipment of which is Vermeer equipment. Our members are pleased to take advantage of the opportunities offered by Congress for this job creation. We have advocated for an increase in the appropriations.

Mr. Chairman, we have appreciated your informal oversight of the State and local governments on the Recovery Act. We would

just assert that more can still be done there. We appreciate your help, but we have got States like Louisiana that have yet to undertake a third of their construction projects. More can be done there.

We are a year and a half, almost, into the Recovery Act, and States that have failed to go ahead and undertake those projects to which you have devoted major resources are still a problem for us. And with 20 percent-plus unemployment in the construction industry—and it is certainly higher for some of our local unions around the country—we desperately need your assistance in exercising your informal oversight, even though those State governments have complied with the letter of the Recovery Act.

Mr. OBERSTAR. We are watching them, and for those who haven't been in compliance and who haven't gotten their projects under contract, Ms. Johnson and I have sent letters out to the Governors and to the heads of the Public Utilities Commissions and told them to get started.

Now, unfortunately, the Senate struck our language that imposed the requirement of "use it or lose it." If within 120 days you haven't used your funds by obligating and getting bids out, then that money would go to States that could use it. The Senate struck that language, but we thought that was a very powerful forcing mechanism to get States to comply.

Mr. HAWKINS. If you will permit me, on the question of equipment or hiring, I would say that, in fact, the low-impact development—the kind of strategies that are in Kansas City, in fact—are driving purchases of equipment that are quite dramatic.

One of the weaknesses—or not weaknesses, but unknowns in the low-impact development arena—is to build a big concrete tunnel. You are pretty clear about how you maintain it over time and how you keep it together to attain performance.

One of the big questions on the low-impact development is, after you put in this incredibly dispersed system of thousands of installations of low impact, whether it is on the streets or walkways or roofs, you need equipment, new equipment, to go out and maintain this over time. Who goes back to the rain garden 5 years after it was installed to make sure that, when it fills up with silt, there is something to remove it? We are buying new equipment to implement maintenance programs for the new Bay savers that are part of this street design that remove pollutants.

So, in fact, there are enormous equipment needs in building an infrastructure we, in fact, don't have to a great extent, which is an infrastructure around the long-term maintenance of low-impact development.

I can also tell you that to attain the projects we are planning over the next 2 to 5 years, we are probably hiring 20 to 40 engineers at DC Water and a much larger number as contractors. So there is no question that when this work does gear up, we will directly need the kinds of services that are provided on that front.

Mr. OBERSTAR. Thank you for your energy, for your enthusiasm and for your remarks. We really appreciate seeing your members out on the job sites, running that equipment and making things work.

I am going to yield at this point, and Chairwoman Johnson has an important announcement to make.



Ms. JOHNSON. Thank you very much.

As of 3:47 p.m., the oil spill has been capped, and there is no more leaking. That is the best news I have heard for a while.

Now, Ms. Edwards had a question.

Ms. EDWARDS. Thank you, Madam Chairwoman. That is the best news that we have heard in a long time, so thank you for that.

I really appreciate your testimony today.

Especially Ms. Marcason, I have been working really hard to try to pass legislation to create investments in green infrastructure like you are working on in Kansas City and across the country. My legislation, H.R. 4202, the Green Infrastructure for Clean Water Act of 2009, was really designed to help communities like Kansas City address these vexing water pollution problems.

You know, just as I was listening to the testimony, I actually thought about our recent Fourth of July, and over the Fourth of July—I have a water system that is principally serviced by the Washington Suburban Sanitary Commission, which is serving 1.8 million customers in Prince George's and Montgomery Counties. Over the Fourth of July, we had water restrictions because of a major flaw which was going to lead to a break—a 96-inch pipe. Thankfully, because of detection equipment technology that had been installed, the system was able to look at that and know that it was failing, even though it meant for our 1.8 million customers, water restrictions over a major holiday and when we would have had fireworks. So, you know, very odd.

But WSSC, I think like Kansas City and like jurisdictions across the country, has a water deficit. We talk about all kinds of deficits. We have a water infrastructure deficit in this country, and it means that we are not spending what we need to on our water infrastructure that is about productivity and efficiency. It is about business survivability.

Can you imagine if that 96-inch main had actually broken? It would have interrupted all kinds of business and commerce throughout our communities, and we know that those needs are great around the country.

So I want to thank you all for the work that you do, but we just have to put people to work improving our Nation's water and sewer infrastructure. In my view, there is no bad spending that goes on there. If in our jurisdiction we have \$10 billion in unmet needs, that is 180,000 jobs. In your jurisdiction, it is \$6.5 billion in unmet needs. For every billion, as you point out in your testimony, Ms. Marcason, that is 18,000 jobs.

So I hope that we over these next several weeks will really also begin to make the commitment to green infrastructure as a technique so that we can use it in terms of prioritizing our needs in our communities, and that we can use green infrastructure and the new technologies that are available that relieve the pressure on these sort of high-intensity and high-cost projects in some of our communities.

The legislation that I have introduced would require the Environmental Protection Agency to really examine how green infrastructure approaches can be incorporated into clean water programs, including permitting and enforcement, and we heard testimony about that earlier.

My question for you is that we are at this really critical time right now, with our infrastructure deteriorating, and investments really that need to be made to the most deteriorating infrastructure needs.

Can you explain, if you would, Ms. Marcason—and particularly Mr. Soth—what this means in terms of creating jobs apart from the—you know, so the real question is improving our Nation's water infrastructure. Tell me what kind of jobs. Tell me how much those jobs pay. Tell me what that means to our business community in terms of its productivity.

I will start with you, Ms. Marcason.

Ms. MARCASON. Well, we are very excited about the range of jobs that the green infrastructure offers.

There is traditional engineering, because it takes an engineering plan. But it is also for people who like to work outside, if you like to work with plants—people who might not want a desk job. So we are doing a lot of job training with the using of plants. We have a training program of young people in a disadvantaged neighborhood who are learning how to lay sidewalks, permeable sidewalks. There are some very important construction-type jobs, and there is also, obviously, the engineering and the architectural and the traditional jobs.

We see the opportunity to get young people very involved in new job skills, to get them excited about doing this and excited about the contribution they can make to making their community a safer and a better place to live. We feel like that is going to have the additional benefits of getting them invested in beautifying their community and having a good job.

So we have really looked at how we can tap into the resources of people who have been underemployed, and we work very closely with our unions and with those types of job training programs in making sure that we do address the needs of each of the communities, but also of our workforce. It is really unacceptable to have such a high unemployment rate. We feel like these types of emerging jobs will have many benefits.

I just want to say, your district is very lucky because we have another advocate for the green programs in our Congressman Cleaver, and it really does take that political will to get the communities moving in that direction. So I am sure your community will benefit from that.

Ms. EDWARDS. Thank you.

Ms. MARCASON. Did I answer your question?

Ms. EDWARDS. You did.

Mr. Soth, I wonder if you could tell me, though really specifically, tell me the kinds of jobs that your workers could be employed at. You know, say, in my community, it is 180,000 jobs with this \$10 billion of deficit and spending and water infrastructure that we have. Who is working? What kind of job are they working at? What are they paid at? If you are an apprentice and you start out and you go through the number of weeks and months and years that it takes to train, then, you know, where does that land you?

Mr. SOTH. Our apprenticeship model in the operating engineers is typically a 4-year apprenticeship program. Oftentimes, an apprentice will start out at 50 or 60 percent of a journey-level work-

er's wages and then progress. As that individual gets more on-the-job training, more classroom instruction, that individual will advance their wages to a place that they are earning journey-level worker wages.

The most recent Bureau of Labor Statistics labor market data suggests that an average wage for a construction worker, a non-supervisory production worker in construction, is over \$23 an hour. Of course, operating engineers and carpenters, because of their skill levels, are oftentimes able to earn more money than that.

I think projects vary, obviously, a little bit, so you will get a different composition of craft workers on each individual project, but it is common that you would find an operating engineer operating a backhoe or a crane. Obviously, there are a lot of labor union members—pipe layers, for example, building wastewater in the ditch, as we say, laying that pipe. So, really, there is a whole range of crafts there. A lot of that work is performed by unions, like the carpenters and the operating engineers, and we are pleased to do as much of it as we can.

As I mentioned, the high unemployment rate has put a lot of pressure on the families of carpenters and operating engineers, and anything we can do to get back to work would be much appreciated. We would like to think that those four policies outlined and suggested by NCA, too, are going to be helpful in that regard in putting America back to work through these clean water infrastructure investments that you have been so kind to commit to restoring the American economy.

Ms. EDWARDS. Thank you very much.

Thank you, Madam Chairwoman.

The point is there are jobs. There are jobs now, and it is infrastructure that we know that we have to fix. Otherwise, it interferes with our competitiveness for the 21st century.

Thank you, Madam Chairwoman.

Ms. JOHNSON. Thank you.

Ms. Marcason, you indicate in your testimony that you would like to see the passage of H.R. 1262.

Due to the proposed sewer overflow grant program, and the set-aside is 20 percent of those grants for communities implementing green infrastructure and other water and energy efficiency improvements, do you feel there would be an opportunity for your district to be able to access that?

Ms. MARCASON. Definitely. Definitely.

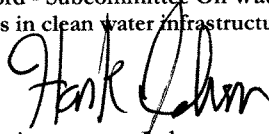
We are doing a lot of demonstration projects right now, and I feel like we need to probably do more so we can know what is going to work the best. I mean this is still an emerging technology, so I think the investment is very important up front. Some of the strategies may be more successful than others, so we are working toward 20 percent. I am not sure that we are quite there yet, but I think it is going to pay off down the road if we make the investment in emerging technologies now.

Ms. JOHNSON. Thank you very much. That is kind of new for everyone. I think that ends our hearing today, and let me thank all of you for coming as witnesses. All of you have been very helpful. Thank you.

[Whereupon, at 4:20 p.m., the subcommittee was adjourned.]

Rep. Hank Johnson  
Statement for the Record - Subcommittee On Water Resources and Environment  
hearing on investments in clean water infrastructure and it's impact on jobs.

July 15, 2010



- Thank you, Chairwoman Johnson and Ranking Member Boozman, for holding this important hearing today. Investing in water infrastructure is one of the most forward thinking and sensible actions that Congress can take.
- I am proud to have supported the American Recovery and Reinvestment Act, which provided \$4 billion for clean water infrastructure, including over \$120 million to my home state of Georgia through the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund.
- This funding has created or retained 344 jobs in Georgia since 2009.
- Additionally I am pleased that as of March 31<sup>st</sup>, Georgia has obligated 100% of the State's water infrastructure funding through the Recovery Act.
- These dollars were intended to put people to work quickly and I am proud that my home state acted in a timely fashion.
- I am becoming increasingly convinced that more funding is necessary for water infrastructure.

- A recent report by the American Society of Civil Engineers gave the nation's wastewater infrastructure a grade of D minus. According to the report, Federal funding under the Clean Water Act State Revolving Loan Fund program has remained flat for more than a decade. Federal assistance has not kept pace with the needs.
- The American Society of Civil Engineers gave Georgia's water infrastructure grades that would upset most parents if they had been brought home on a report card.
- Georgia received a C grade for wastewater, a D plus grade for stormwater, and C plus grade for drinking water.
- The report also found that Georgia's drinking water infrastructure needs an investment of \$9.02 billion over the next 20 years and that Georgia has \$2.35 billion in wastewater infrastructure needs.
- Clearly, Georgians deserve better.
- Right now, Georgia is embroiled in the "tri-state water wars" with Alabama and Florida over access to water from Lake Lanier.
- The three states have been arguing for decades and a judge has recently ruled that Georgia will lose access to a significant amount of water unless an agreement is reached soon.

Georgia's waste and stormwater treatment have been a sticking point in the discussions.

- I am working hard to help ensure a positive outcome in these “water wars” and I know that a targeted investment in better and more efficient water infrastructure in Georgia would have helped in the negotiations.
- Recently, the state adopted a comprehensive State-wide Water Management Plan to guide Georgia in managing water resources in a sustainable manner.
- As we move into the 21<sup>st</sup> Century, I am optimistic that with more federal resources, Georgia will begin to invest in necessary water infrastructure.
- Georgia and much of the southeast have recently experienced an historic drought.
- As a result, many utilities are struggling with reduced revenues due to water conservation measures, measures which I support and hope will continue to expand and become more robust.
- As revenues decrease, my constituents are beginning to face higher water rates to pay for necessary infrastructure.
- The alternative to higher rates is poor quality water and stormwater runoff that harms our ecosystem.

- States and local governments cannot rebuild our water infrastructure alone.
- They need federal assistance through the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund.
- In 2008, DeKalb County provided my office with a report listing 20 shovel ready water projects, totaling \$1.6 billion.
- These projects could be further along, and my constituents could go to work building them, with the adequate federal funding.
- I know that the situation is similar in Rockdale and Gwinnet Counties as well.
- Chairwoman Johnson, I hope that today's hearing will highlight the need for a sustained increase in federal funding for water infrastructure.
- I hope to work with you, the Ranking Member, and my colleagues on this subcommittee to make this investment in water infrastructure a reality.



Statement of Rep. Harry Mitchell  
House Transportation and Infrastructure Committee  
Subcommittee on Water Resources and Environment  
7/15/10

--Thank you, Madam Chair.

--As you know I have been extremely concerned about the funding formula that is currently used to distribute federal assistance to State Clean Water Revolving Funds. (SRFs)

--Because the formula remains tied, in part, to Census data from 1970, Arizona's been getting significantly short-changed.

--Arizona ranks 9<sup>th</sup> in the nation in terms of need, but we rank 37<sup>th</sup> in receipt of federal funding for SRFs. On a per capita basis, Arizona ranks 53<sup>rd</sup>. Even the territories do better than we do.

--This is grossly unfair, and I have long advocated for a change.

--Last year, we passed the Water Quality Investment Act of 2009, which establishes a process through which Arizona can ultimately start receiving its fair share of SRFs.

--I want to once again thank Chairman Oberstar for his continued commitment to helping us achieve fairness.

--I look forward to hearing from today's witnesses. At this time, I yield back.



**PUTTING AMERICA BACK TO WORK THROUGH  
CLEAN WATER INFRASTRUCTURE INVESTMENT**

UNITED STATES HOUSE OF REPRESENTATIVES  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
SUBCOMMITTEE ON WATER RESOURCES AND THE ENVIRONMENT

HON. EDDIE BERNICE JOHNSON, CHAIRMAN



TESTIMONY OF **GEORGE S. HAWKINS, ESQ.**  
GENERAL MANAGER  
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

THURSDAY, JULY 15 AT 2 P.M.  
RAYBURN HOUSE OFFICE BUILDING, ROOM 2167

Good afternoon Chairwoman Johnson, Ranking Member Boozman and members of the Subcommittee on Water Resources and Environment. My name is George Hawkins and I am the General Manager of the District of Columbia Water and Sewer Authority – also known simply as DC Water. I'd like to thank you for inviting me to testify today on the issue of federal infrastructure funding and job creation. As the ultimate person in charge of managing and upgrading an aging infrastructure portfolio that includes 3,100 miles of pipes and more than 36,000 valves, I know this issue very well.

First, by way of background, DC Water purchases treated drinking water at wholesale from our federal partner, the Washington Aqueduct, which is a unit of the U.S. Army Corps of Engineers. We then deliver this water through our pumping stations and pipes to our retail customers in the District of Columbia – including this very building. We also operate the world's largest advanced wastewater treatment plant, at Blue Plains, for the benefit of our customers in the District and several suburban jurisdictions.

DC Water was supportive of the work Congress and the President did to pass the American Recovery and Reinvestment Act of 2009 for two main reasons. The first, which you noted in your opening remarks, is that the bill put people to work. The second, which I will also discuss, is that it provided a much-needed federal boost to local infrastructure projects that are critical to our very survival as a nation.

In our Fiscal Year 2009, which ran from October 2008 to September of last year, the Authority received 6 stimulus grants for Safe Drinking Water projects, totaling \$19.5 million. We also received 3 grants for Clean Water projects, totaling \$5.8 million. (Our annual operating budget and capital expenditures total \$791 million.) The stimulus projects include replacing valves of different sizes, replacing water mains, improving streams and rehabilitating sewers. To date, we have four projects underway that have created or retained 16 jobs. However, I need to point out that we will shortly have a total of 97 projects underway that are funded by these stimulus grants. In all honesty, we had hoped for faster progress, but have run into difficulties obtaining permits from the various entities that govern the land where we will do the work. Nonetheless, it is no exaggeration to say that once all the projects are complete, we will have created or retained hundreds of

jobs. In a city where some entire neighborhoods have unemployment rates approaching 40 percent, the value of putting people to work cannot be underestimated. Furthermore, the type of jobs provided by federal support for infrastructure may be among the most important we can create. These jobs offer opportunities for entry into the workforce and future advancement to populations who traditionally have low rates of labor market participation. In addition, they cannot be exported, providing a reliable and constant source of employment.

I would also like to point out what is perhaps obvious to us all – that investment in our water and wastewater infrastructure supports every other job in the country. One of the first casualties of a disruption of these services is the homes and businesses that rely on these services. People are forced to stay home, businesses must shut down, neighborhoods and natural areas are put at risk. Every new business needs a water and sewer hook-up. Investment in our service directly enables every other job in the country.

Federal investment in water infrastructure has another value I'd like to discuss briefly while I have the opportunity – it can accelerate needed improvements to our aging water system while relieving ratepayers of the burden of paying for these improvements. That need is reflected in EPA's most recent Clean Watersheds Needs Survey. The survey shows a dramatic hike in publicly owned wastewater infrastructure needs -- a jump of \$95 billion in four years to a total national need of \$298 billion as of January 1, 2008. The District of Columbia is again at the top of per-capita needs at \$ 4,315. This statistic highlights the perilous fact that much of the water quality needs in the country are focused on improvements needed in urban areas -- which overlaps with some of the most impoverished neighborhoods in the county. Federal stimulus funds for infrastructure in this manner also provide a direct, meaningful level of support to many on low and fixed incomes who are often living in neighborhoods in cities and other metropolitan districts.

The average age of a water main in the District of Columbia is 76 years, and Civil War-era pipes are not uncommon. In the fiscal year that begins this fall, DC Water will triple the rate of its water infrastructure replacement. Our replacement rate will be 1 percent a year – meaning we'll replace all the pipes within 100 years. This is twice the

national average, but not nearly fast enough. And yet to achieve the 1-percent replacement rate, we're raising the average monthly water bill from \$51 to \$60. Local ratepayers are now paying the bill for infrastructure installed by the federal government generations ago. This is a situation far from unique to the District of Columbia. In many states and in thousands of municipalities, the pipes have long surpassed their maximum life expectancy. As you can see from my uniform and the cover page of my testimony, I'm fond of the phrase "Water is life." Continued federal investment in water infrastructure, in my view, fulfills a fundamental obligation of government to the people it serves. It enables us to continue delivering life to our customers. Madame Chairwoman, members of the Subcommittee, this concludes my prepared remarks. Thank you again for the opportunity to testify, and I look forward to answering any questions you may have.

Statement of Caswell Holloway  
Commissioner, New York City Department of Environmental Protection  
Before the Subcommittee on Water Resources, Committee on Transportation and  
Infrastructure

Rep. Eddie Bernice Johnson, Chair  
Thursday, July 15, 2010, 2 p.m.  
2167 Rayburn

Good afternoon Madame Chair and Members, I am Caswell Holloway, Commissioner of the New York City Department of Environmental Protection, or as we're known in New York City, "DEP." On behalf of Mayor Michael R. Bloomberg, thank you for the opportunity to testify about the critical water and wastewater infrastructure challenges that we face serving nine million New Yorkers—eight million in the City and another one million in upstate New York.

DEP employs 6,000 men and women who provide water and sewer services to the residents of New York City as well as commuters and out-of-town visitors. We manage the City's water supply, providing more than 1 billion gallons of water each day from a watershed that extends more than 125 miles from the City, and comprises 19 reservoirs and three controlled lakes. Approximately 7,000 miles of aqueducts, tunnels, and water mains bring water to homes and businesses throughout the five boroughs, and 7,400 miles of sewer lines take 1.3 billion gallons of wastewater to one of our 14 in-City treatment plants.

DEP also has one of the largest construction budgets in the region, with \$11 billion of work currently under construction and \$3 billion more in the planning or design stage. Our capital budget for the next four fiscal years is \$5.7 billion, and will generate approximately 9,200 construction jobs.

A majority of DEP's capital spending over the past eight years has been dedicated to meeting unfunded federal and state regulatory mandates that require the completion of massive capital investments on tight construction schedules. Some of our largest contracts had to go to bid at the height of the construction market in 2006 and 2007, not because of a pressing public health need, but because of a one-size-fits-all approach that did not account for New York City's specific public health and other needs. Many of DEP's unfunded water mandates could have been stretched out or modified without any appreciable impact on public health or the environment, which would have enabled us to build less, and focus more resources on maintaining our current infrastructure in a state of good repair. It is time for the national clean water strategy to evolve from a "one size fits all" mandate and enforcement approach, to a strategy that recognizes and funds the individual needs of water and wastewater utilities based on demonstrated public health needs and water quality benefits.

Using our own history as an example, of the \$19 billion in capital investments that DEP has made over the last seven years, 69% has funded construction necessary to meet federal and state mandates. The bottom line for New York City ratepayers is that their bills are rising by double digits for the fourth consecutive year, creating an increased financial burden on homeowners, particularly seniors and others who live on a fixed income. Unfunded mandates have played a significant role in that increase. Over the last seven years, the cost of mandates has led to a 24% increase in water and sewer rates for the average single-family home – from \$639 to \$816 a year.

Because these projects are legally mandated and have to be done within a specified time period, many of our construction dollars are not dedicated to the projects that are most needed by New Yorkers, or are the most cost-effective in terms of public health and environmental

protection. For example, there are still thousands of New Yorkers who lack sanitary sewers and tens of thousands in New York City that lack storm sewers. Completing the full build-out of the storm and sanitary sewer system is an important priority for the City of New York, but we have had to defer many projects until unfunded, but legally mandated work is complete. For example, as a result of a mandate, DEP constructed a \$422 million combined sewer overflow tank that will have valuable but very limited benefits to one tributary in New York Harbor. Going forward, DEP is proposing the use of less costly green infrastructure to achieve the same water quality benefits—and greater overall public benefit—on a citywide scale. But success will depend on the willingness of our regulators to embrace these new methods, and a collaborative, flexible approach, rather than a “one size fits all” standard. We are encouraged by indications of support for green infrastructure that we have heard from both EPA and our state regulators, and there is much to be said for more cooperative partnerships with localities like New York City—who are in the best position to adopt locally suited, cost-effective approaches to achieving water quality standards.

The grant provisions of the American Recovery and Reinvestment Act (ARRA) were an extremely welcome return to the pattern of federal environmental funding that largely ended in the mid- 1980s. Thanks to the \$219 million grant provided by ARRA, DEP moved forward with nine separate projects that will reduce emissions and energy costs and provide needed upgrades to eight of our wastewater treatment facilities and our sludge vessel fleet. Another ARRA-funded project involves the use of green infrastructure to help restore 38 acres of degraded marshes and wetlands, and still another ARRA-funded project will create green corridors and streetscapes designed to capture stormwater. All of those projects are underway.

Overall, ARRA allowed DEP to move on projects that otherwise would have been shelved or delayed. However, using the State Revolving Fund (SRF) loan program created certain restrictions and administrative burdens. For example, projects like sewers and water mains were not able to qualify for ARRA funding nor were any of the City's drinking water projects ranked high enough for funding. The \$219 million reimbursement we expect to receive for wastewater projects is proof that, in spite of any restrictions, we were able to work through the problems associated with adapting the SRF to an economic stimulus purpose. If Congress considers a second ARRA program, we recommend making it a 100% grant program—perhaps with direct grants to localities like New York City with the demonstrated capacity to put dollars to work quickly—that would give us much greater local flexibility. We also recommend the extension of the Build America Bond program, which is providing our water and sewer system with more cost effective financing for its capital program.

Before closing, I'd like to say a few words about H.R. 1262, the Water Quality Investment Act of 2009, which embodies a comprehensive approach to clean-water initiatives and infrastructure financing. The reauthorization at \$13.8 billion over five years recognizes the range of needs of both large and small water and wastewater systems. For all the reasons I have just mentioned DEP supports the provisions allowing up to 30% of SRF funds to be used for forgiveness of principal or negative interest loans. We also support the provisions authorizing \$2.5 billion over five years for grants for combined sewer overflow facilities as well as the provisions expanding the range of projects eligible to receive assistance, such as water conservation, reduction in energy consumption, and watershed pilot projects, all of which are elements of Mayor Bloomberg's PlaNYC for a greener, sustainable New York City.



We are pleased to see that the legislation seeks more research about pharmaceuticals. While the potential presence of pharmaceuticals and personal care products in drinking water supplies has generated much attention lately, it is critically important that any new regulation in this area be based on a demonstrated public health need, and not simply the availability of monitoring or treatment technology. Just because something is detectable does not mean it poses a water quality risk. DEP recently completed a pharmaceutical sampling program of our source waters that concluded that trace amounts of pharmaceuticals and personal care products do not pose a public health risk. In fact, you would have to drink 846,000 glasses of New York City tap water in a single day to get the equivalent of just one ibuprofen.

DEP recognizes that the final version of H.R.1262 modified earlier versions that appeared to require municipalities to notify individual homeowners every time any part of its system overflowed. However, we remained concerned about other notification provisions regarding measurement and modeling of certain flows that could create a significant unfunded mandate.

In conclusion, I believe that ARRA has been a success when it comes to the projects undertaken by DEP. Those funds allowed us to create jobs and productive assets that will serve the public for generations to come. However, much remains to be done to ensure that federal standards—if they are to be imposed—actually achieve water quality and public health benefits, and come with the funding necessary to carry them out. Otherwise, unfunded mandates will continue to substitute federal and state judgment about system needs for the judgment of the localities—like New York City—with the expertise and experience to make smart investments that have a large public-health return at the lowest cost.

Thank you for the opportunity to testify.

Submitted by Commissioner Cas Holloway

**Responses from New York City Environmental Protection Commissioner Cas Holloway to questions asked by Members during a July 15, 2010 hearing of the House Subcommittee on Water Resources and the Environment**

*Question: Did requirements in ARRA for serving disadvantaged communities impact NYC's ability to set priorities?*

Answer:

The ARRA requirements for disadvantaged communities did not affect New York City. Pursuant to ARRA, EPA awarded a \$432 million grant to New York State for wastewater funding. Of that amount New York City received a \$220 million grant, or slightly over 50% of the State's grant. That is roughly the same percentage of New York State Revolving Loan Fund dollars that New York City receives in any year, for wastewater. (This also mirrors the percentage of the State's population that lives in New York City.) If New York City, or parts of it, were considered by New York State to be a "disadvantaged community", it is unlikely that New York City's share of the State's ARRA total could have increased.

For drinking water projects, New York State received an EPA grant of approximately \$88 million, none of which was awarded to New York City. But the reason was more related to New York State's methods for prioritizing drinking water projects and less to provisions regarding financially disadvantaged communities. Although New York City is burdened with costly and unfunded drinking water treatment mandates originating from federal regulations, the City's water quality is high enough that the health risks from our drinking water are extremely low compared with other drinking water systems in New York State. Thus the City's treatment projects do not carry in the minds of State regulators a high priority for funding as compared with other treatment projects in the State.

The ARRA provisions regarding financially disadvantaged communities probably had no effect on the lack of a drinking water grant to New York City but if those provisions were carried through in direct federal grants, and were applied to the City as a whole rather than considering the significant portions that have disadvantaged communities, then it would affect grants to New York City.

*Question: What kinds of mandates does Commissioner Holloway not need?*

Answer:

Combined sewer overflows ("CSO's") Even as the water quality of New York harbor has improved significantly, DEP and its regulators are looking for ways to continue that trend and better control the remaining sources of pollution, one of which is combined sewer overflows. Pursuant to federal requirements, DEP is under a State mandate to

control CSO's through construction of traditional sewer infrastructure with an estimated cost of \$6.8 billion. As part of that mandate, DEP constructed a \$437 million combined sewer overflow tank that will benefit only one 7,000-foot, man-made tributary of New York Harbor known as Paerdegat Basin. Rather than continue building additional capital-intensive holding tanks and tunnels that in many cases provide water quality benefits to a targeted area, green infrastructure installs natural features on buildings, roads and other locations to absorb and retain storm water that can be installed relatively quickly and require minimal energy and manpower for operation. DEP proposed in the NYC Green Infrastructure Plan, which was issued in September, to control CSO's through a combination of less costly green infrastructure and cost-effective gray infrastructure to achieve the same or greater water quality benefits as the existing mandates—and greater overall public benefit—on a citywide scale.

Ultra-violet disinfection of the Catskill-Delaware sources of NYC's water supply  
Pursuant to an EPA requirement to reduce health risks posed by microbes such as *Cryptosporidium*, DEP is constructing a \$1.6 billion facility to provide ultra-violet disinfection of the drinking water provided from its Catskill and Delaware watersheds. New York City's dilemma is that in the case of the Catskill-Delaware sources, this type of microbial contamination is a very low health risk if a risk at all. Because the relevant federal regulation is of the "one-size-fits-all" type, New York City is building a \$1.6 billion treatment facility to resolve a microbial contamination problem that may not exist.

Hillview Reservoir Cover The Hillview Reservoir is a 90-acre, 900-million-gallon uncovered finished drinking water storage reservoir just outside the New York City line (in Yonkers, NY). Federal and state regulators have insisted the Hillview Reservoir must be covered pursuant to an EPA drinking water regulation that applies to all finished drinking water storage reservoirs that feed directly into a distribution system serving consumers (as Hillview does) across the country. For a variety of reasons including source water quality, avian deterrent programs and the elevation of Hillview Reservoir with respect to its surroundings, extensive water quality data have demonstrated that Hillview is not a source of pathogens to the City's water supply. Covering it at a cost of over \$1.2 billion would not result in significant diminution of health risk and the City has vigorously questioned the need for and timing of construction of a Hillview cover. Again, the issue is a federal regulation that creates a mandate for municipalities to reduce contamination risks (at local expense) without allowing either the regulator or the supplier to assess whether the costs are justifiable when measured against the benefits in terms of public health protection, risk reduction, or improved water quality.



**STATEMENT OF**

**THE HONORABLE JAN MARCASON  
COUNCILWOMAN, KANSAS CITY, MISSOURI**

**BEFORE THE  
HOUSE COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE,**

**SUBCOMMITTEE ON WATER RESOURCES AND  
ENVIRONMENT**

**JULY 15, 2010  
WASHINGTON, DC**

Statement of

Jan Marcason  
Councilwoman, Kansas City, Missouri

On behalf of the National League of Cities

Before the House Transportation and Infrastructure Committee,  
Subcommittee on Water Resources and Environment

*“Putting America Back to Work Through Clean Water Infrastructure  
Investment”*

July 15, 2010, 2 p.m. – 2167 Rayburn

Good afternoon, Madam Chairwoman and Members of the Committee. I am Jan Marcason, Councilwoman from Kansas City, Missouri. I am here today on behalf of the National League of Cities (NLC), the oldest and largest organization representing cities and towns across America. I appreciate the opportunity to share our perspective on the important role of clean water infrastructure investment in creating jobs, protecting the environment, and improving the quality of life in our hometowns and specifically in Kansas City, Missouri, my city.

The availability of clean water is the backbone of a modern society and a livable community, and the nation’s water infrastructure systems are significant assets that protect public health, as well as the nation’s precious water resources. To the extent that America’s water infrastructure is properly maintained and can adequately meet the needs of our communities, it will help ensure the long-term vitality of our communities.

Investment in water infrastructure and other infrastructure systems also helps create good paying jobs in our communities that are an essential component to a thriving economy. According to a 2009 report by the Alliance for American Manufacturing, infrastructure investment spending will create about 18,000 total jobs for every \$1 billion in new investment spending. These jobs are created not only in the engineering and construction industries, but also in manufacturing as fabricated metals, concrete, cement, glass, rubber, plastics, steel and wood products are all needed to complete projects. Additionally, the maintenance, repair and improvement of these systems over time provides other sources of employment.

However, improving the infrastructure systems to protect our public health and promote our local economies requires substantial investment. According to the U.S. Environmental Protection Agency, the total wastewater and stormwater management needs for the nation are nearly \$300 billion as of January 1, 2008. This amount includes \$192.2 billion for wastewater treatment plants, pipe repairs, and buying and installing new pipes; \$63.6 billion for combined sewer

overflow correction; and \$42.3 billion for stormwater management. My own state, Missouri, documented needs totaling \$6.5 billion.

Clearly, given the level of need, governments at all levels must do more to protect and modernize our nation's water infrastructure systems. In terms of the federal government, this means reauthorizing the Clean Water State Revolving Loan Fund (SRF) program, which the House decided to do last year and for which we are grateful. Because we believe the quality of our nation's water infrastructure systems is a national priority, NLC will continue to urge Congress and the Administration to reauthorize and fully fund the Clean Water SRF, an essential tool for providing clean water. By fully funding this program and its companion, the Drinking Water SRF, and including requirements that a portion of such funds are made available as grants to local governments, the federal government can help ensure that local communities have the resources needed to protect and maintain the wastewater and drinking water treatment facilities that serve our residents.

#### **Kansas City's Overflow Control Plan**

In my city, Kansas City, we have endorsed a sewer overflow control plan (OCP or Plan) that will improve the City's water quality by overhauling our sewer systems and significantly reducing discharges of untreated sewage that overflows into our streams, lakes and rivers during heavy rains. This ambitious green infrastructure project will mean a significant investment in neighborhood amenities and local job creation. The Plan calls for green infrastructure solutions such as rain gardens and bio-retention facilities to intercept, store, and infiltrate stormwater runoff, thereby reducing the quantity. By 2035, Kansas City will have the infrastructure to capture and convey combined sewage to treatment facilities, keeping billions of gallons of untreated sewage from reaching our streams, lakes, and rivers.

This 25-year, \$2.5 billion program is the largest economic development project in our city's history. It is projected that it will create nearly 20,000 good paying jobs over the life of the project, some in the area of emerging technologies, others in design, engineering, and construction. The 28 communities served by Kansas City's Water Services Department will be the direct beneficiaries of the improvements, as well as the economic influx.

To help fund implementation of the Plan, Kansas City is requesting Clean Water SRF loans and grants from the State of Missouri. The City is relying on user fees and rate increases to residents to help pay for these improvements. So far, these fees and rate increases have not been insignificant; since FY 2008, the average residential water utility bill has increased 44 percent. In order to keep future fees and rates affordable to our citizens, the availability of funds through the SRF program is essential.

#### **Target Green Pilot Project**

The OCP is being implemented in phases. Under the first phase, the Kansas City Water Services Department is implementing a pilot project, "Target Green," to measure and evaluate the performance of green solutions within a portion of the Middle Blue River Basin. As the largest project currently being planned for construction in the United States using green solutions to

address combined sewer overflow, the Target Green pilot project has the potential to serve as a model for the nation. The measurable results are expected to show that green solutions do indeed work, while at the same time serving as a catalyst for much-needed economic development and an increase in property values. The City will use the results of the pilot project to guide the future phases of the Plan.

The 100 acre Target Green project site is located in one of Kansas City's distressed, ethnically diverse, urban neighborhoods. The area has 300 residential properties, a high concentration of rental properties, a low median family income, vacant and semi-vacant commercial tracts, minimal curbs and sidewalks, and few community amenities.

Although the original plan was to install two large storage tanks to capture combined sewer overflows, the area seemed ideal to instead install green infrastructure solutions with the same goal of reducing overflows, at a projected savings of \$10 million. Along with rehabilitating the existing sewer system, green solutions will be used to capture much of the stormwater before it enters the combined sewer system.

The green solutions selected for the area include native landscaping in bio-retention curb bumpouts, which has an added benefit of narrowing the street and calming vehicular traffic. New sidewalks, curbs and gutters will channel water to the desired destinations, while at the same time beautifying the neighborhood and encouraging a healthy lifestyle that includes walking and connecting with neighbors.

In addition to public improvements, the project is fostering entrepreneurship. Under the OCP, property owners are required to disconnect their downspouts from the sewer system and redirect the stormwater into rain barrels or rain gardens. This requirement inspired Tony Webb, a former army recruiter who resides in the pilot project area, to start a new business after attending a public meeting where he learned about rain barrels and how they will help control the amount of water getting into the sewer system. He made one for his own house and is now manufacturing and selling them throughout the neighborhood and across the city. Tony's story is just one example of how public investment in infrastructure is creating private investment and jobs in our community.

Finally, job training is an important and essential complement to job creation, ensuring that the workforce has the necessary skills to carry out the work. Local engineering companies, non-profit job training organizations, and educational programs are already preparing the workforce for the multitude of jobs that implementing the OCP requires. Working together, these training partners will play an important role in mapping out green career pathways by gathering and analyzing data to project green labor demands and identifying the skills needed for jobs in high-growth sectors. In addition, the City is cataloguing existing training programs and educational institutions to map links and detect gaps. Rather than creating stand-alone programs, green career pathways must build on existing programs to identify entry points and opportunities for further training and advancement. These job training organizations will be involved in the planning and project management phases of the OCP so that the educational programs can be sequenced to coincide with the work components of the OCP.

**Conclusion**

The economic impact of the OCP is clear, but the larger implications are also significant. Kansas City's commitment to green infrastructure provides for the triple bottom line: creating economic, environmental, and social benefits that make the city a better place to live and work. Kansas City's innovative and cost-effective approach to reducing sewer overflows will result in cleaner water, neighborhood amenities and economic vitality.

Moreover, the Kansas City OCP, along with clean water infrastructure projects totaling almost \$15 billion in communities along the Missouri River—from Omaha to St. Louis—will be a significant economic engine for the entire region, and will protect a valuable natural resource, the “Mighty Mo.” There is no larger or more important economic development priority for the Midwest, and the federal government through the Clean Water SRF program has an important role to play in helping us achieve our vision.

I want to thank the Committee for its leadership in approving legislation to reauthorize the Clean Water SRF program for the first time in 15 years. NLC supported the Water Quality Investment Act of 2009 (H.R. 1262) that passed the House last year to authorize \$13.8 billion for the Clean Water SRF program and continues to urge the Senate to bring similar legislation to the floor for consideration. Kansas City and the many other communities taking steps to address sewer overflows would greatly benefit from the proposed Sewer Overflow Control Grant program and the set-aside of 20 percent of those grants for communities implementing green infrastructure or other water and energy efficient improvements.

Thank you for the opportunity to speak on behalf of America's cities and towns. I look forward to your questions.



**NCA II**

www.ncabuilding.com

Raymond J. Pouppore  
Executive Vice PresidentUNITED BROTHERHOOD  
of CARPENTERS & JOINERS  
of AMERICADouglas J. McCarron  
General PresidentINTERNATIONAL UNION  
of OPERATING ENGINEERSVincent J. Giblin  
General President

© 2010 NCA II

**NATIONAL CONSTRUCTION ALLIANCE II**

HEADQUARTERS: 1634 Eye Street NW, Suite 805 • Washington, DC 20006 • 202-239-4779

**Testimony of  
Jeffrey Soth  
On behalf of the  
National Construction Alliance II**

**Transportation and Infrastructure Committee  
Subcommittee on Water Resources and Environment  
U.S. House of Representatives  
July 15, 2010**

Thank you, Subcommittee Chairwoman Johnson, Ranking Member Boozman, and distinguished members of the Water Resources and Environment Subcommittee.

My name is Jeffrey Soth. While I am the Assistant Director of the Legislative and Political Department of the International Union of Operating Engineers, I am testifying today on behalf of the National Construction Alliance II, a partnership between two of the nation's leading construction unions: my union, the Operating Engineers, and the United Brotherhood of Carpenters and Joiners. The two unions of the Alliance represent nearly one-million workers – many of the same workers who build the nation's clean water infrastructure. We sincerely appreciate the opportunity to testify before the subcommittee today.

Chairwoman Johnson, the NCA II values the commitment made by Congress and the Administration to re-energize the national economy through infrastructure investments, particularly clean water investments, in the Recovery Act. Those members who supported the stimulus, quite literally, pulled the construction industry back from the precipice. The industry, however, is still on the ledge. It is clear that public works spending should have played a larger role in the Recovery Act. Consequently, more must be done as quickly as possible to restore construction employment and begin to fill the dramatic need for clean water investments across the country.

Despite the massive infusion of federal dollars into construction, the construction industry is still in dire straits. Private construction, particularly residential and commercial construction, has fallen off precipitously. Additionally, most state and local governments have reduced construction spending. According to the Census Bureau, construction spending was down over 13% in the first four months of 2010 compared to 2009. This figure is particularly alarming since 2009, as you know, was one of the worst years on record for the industry. Last year the construction industry unemployment rate peaked at over 21%. In February of this year, the unemployment rate in the construction industry exceeded 27%. The most recently available data shows that in June the unemployment rate in the construction industry exceeded 20%. Almost 1.8-million construction workers are unemployed and looking for work. Since its peak in August 2006 at more than 7.7 million jobs, construction employment has fallen by over 2.1-million jobs, or 28%, to less than 5.6-million jobs in June 2010.

REGIONAL OFFICE: 100 East Corson Street, Suite 230 • Pasadena, CA 91103 • 626-229-9975

Unfortunately, the same is true for employment in the “water and sewer system” sub-sector of the construction industry. Please see the chart on the last page of my testimony. It shows average annual employment in the water and sewer system subsector of construction from 2000-2009. You can see the steep employment drop in the last two years. Employment plummeted in the subsector by over 21% between 2007 and 2009. This year will, no doubt, see employment fall even farther.

The National Construction Alliance II firmly believes that the best way to restart the ailing construction economy is to get hard-working Americans back to work by rebuilding the national infrastructure, including wastewater systems. These investments will employ thousands of construction workers, clean up the nation’s environment, improve the public health of Americans, and accommodate the country’s growing population.

Capacity and expertise in the construction industry are being lost at an alarming rate. The nation simply cannot afford to keep losing construction jobs. They provide family-supporting wages to millions of workers, both union and non-union. The average wage for production and non-supervisory workers in construction was over \$23 in June. Because of their training, productivity, and skill levels, construction workers who are fortunate enough to carry a union card with the Carpenters or Operating Engineers typically earn even more than these average wages.

In partnership with construction contractors, the Carpenters and Operating Engineers maintain apprenticeship and training programs that train the next generation of skilled craft workers. The apprenticeship model delivers careers, not merely jobs, for hard-working members of the NCA II. But in order to bring an individual apprentice through their program, which for Carpenters and Operating Engineers typically consists of three or four years of on-the-job training and classroom instruction, there must be continuity of work. The apprenticeship model depends on employment and on-the-job training. The high unemployment jeopardizes the future of the industry, making it impossible to deliver the required on-the-job training hours for a worker to develop his or her skills.

There can be no doubt about the need for clean water infrastructure across the nation. The need for these investments has been documented by study after study. Whether it is the Environmental Council of the States or the Environmental Protection Agency’s recently released Needs Survey Report to Congress, the results are the same: America needs a dramatic investment in clean water infrastructure. According to the EPA Needs Survey, there are nearly \$300-billion in capital needs for public wastewater, combined sewer overflow, and stormwater management. According to a 2007 report by American Rivers, “best estimates indicate that over 850-billion gallons of raw sewage from combined sewer systems flow into our waterways every year.” Virtually all of these investments would be eligible for resources under the Clean Water Act-State Revolving Fund.

All 50 States met the requirement that 100 percent of their Clean Water Act-State Revolving Fund projects be under contract within one year of enactment (February 17, 2010). All states met this requirement. What is disappointing, however, is to see that some states fail to come through on their end of the federal-state partnership in the Clean Water Act-State Revolving Fund. For example, while the state of Louisiana has been able to place 100% of their funds under contract,

consistent with the accountability mandates of the American Recovery and Reinvestment Act, the state only has about two-thirds of their projects underway. With over one-third of its clean water investments not yet underway, the state has failed to maximize the employment opportunities associated with federal resources.

Madame Chairwoman, despite all of your committee's hard work, the nation's construction workers are still struggling. And the nation's water infrastructure needs still require further investment. There are several short- and long-term measures that the National Construction Alliance II respectfully suggests that Congress undertake to restore employment in water and sewer construction and the broader construction industry.

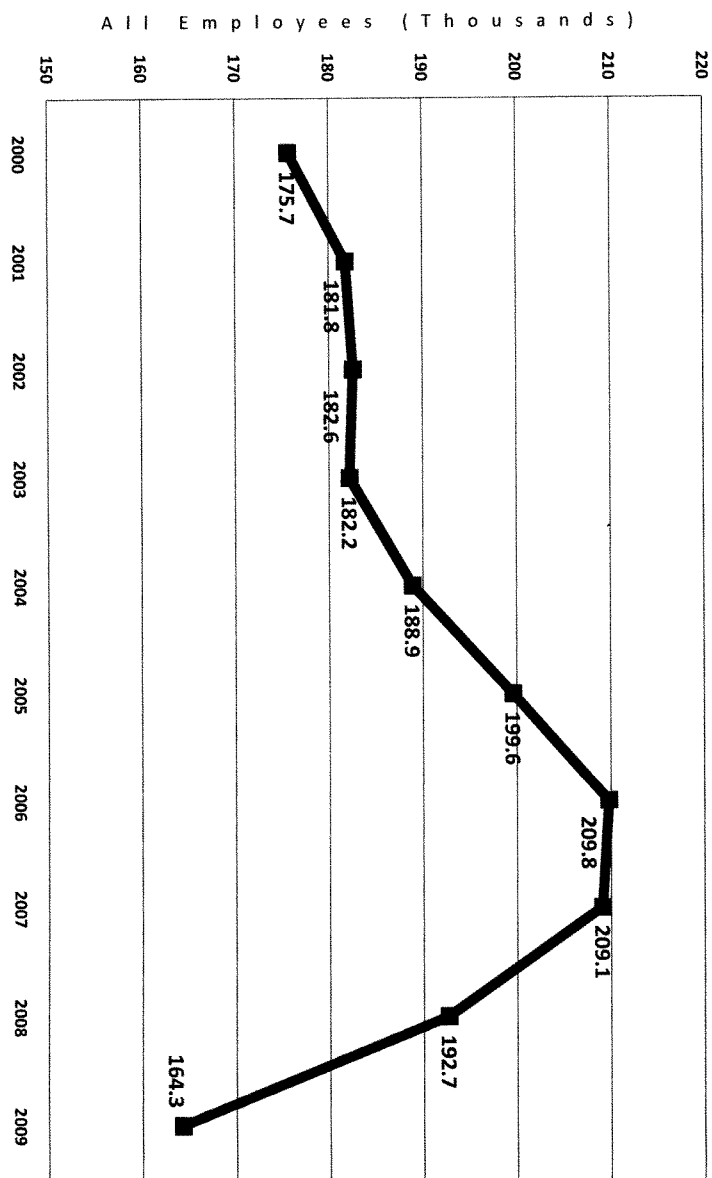
First, continue to exercise your aggressive oversight on state and local governments, encouraging them to undertake the construction projects that Congress funded in the Recovery Act. Members of the NCA II and other construction workers in Louisiana, for example, need you to bring pressure to bear on state and local governments that have not yet put your investments to work. Second, make another large investment in clean and safe drinking water in the annual appropriations process. While last year's appropriation, which more than doubled the Fiscal Year 2009 appropriation, was a much needed investment and great start, clean water infrastructure and construction workers urgently need further investment. Third, pass the Clean Water Act-State Revolving Fund re-authorization. As the committee is painfully aware, it was over 20 years ago that the last authorization was enacted into law. Despite bi-partisan support and passage of H.R. 1262 in the House chamber and bi-partisan support for S. 1005 as it passed in the Senate Environment and Public Works Committee, the legislation languishes in the Senate awaiting floor action. Please urge Senate leadership to pass the bill immediately. Lastly, NCA II urges you to support the bi-partisan Water Protection and Reinvestment Act, H.R. 3202. It delivers a water trust fund, with dedicated revenues for clean and safe drinking water investments. This approach would dedicate long-term financing to the nation's water infrastructure, while relieving pressure on general revenue.

Chairwoman Johnson and members of this committee, we must not lose momentum on the nation's economic recovery. Now is not the time, frankly, to focus the nation's fiscal attention on deficits and debt. The economy – the construction sector in particular – is still too fragile. Tax revenue will not rebound as long as so many construction workers are in the unemployment lines. The construction industry is still in a deep, deep recession. Some have said, in fact, that while the broader economy is in recession, the construction industry is in depression. With over 27% unemployment in February, you can see why they would say it. Members of the NCA II, unfortunately, feel the economic insecurity every day.

We are eager to continue to work with you in what's left of the 111<sup>th</sup> Congress to advance the cause of "Putting America Back to Work Through Clean Water Infrastructure Investment."

Thank you very much for the opportunity to testify this morning.

# Water and Sewer System Annual Average Construction Employment 2000 - 2009





AED Washington Office  
121 North Henry Street  
Alexandria, VA 22314  
Telephone: 703.739.9513  
Facsimile: 703.739.9488  
E-Mail: aeddc@aednet.org

## PUTTING AMERICA BACK TO WORK THROUGH CLEAN WATER INFRASTRUCTURE INVESTMENT

STATEMENT OF DENNIS VANDER MOLEN, PRESIDENT AND GENERAL MANAGER,  
VERMEER MIDSOUTH, INC., JACKSON, MISSISSIPPI  
ON BEHALF OF THE ASSOCIATED EQUIPMENT DISTRIBUTORS BEFORE  
THE U.S. HOUSE OF REPRESENTATIVES TRANSPORTATION & INFRASTRUCTURE  
COMMITTEE'S WATER RESOURCES AND ENVIRONMENT SUBCOMMITTEE

July 15, 2010

Chairwoman Johnson, Ranking Member Boozman, and other distinguished members of this subcommittee, my name is Dennis Vander Molen and it is my pleasure to appear before you today

both as a small business owner directly affected by water infrastructure investment and in my capacity as the 2010 chairman of the Associated Equipment Distributors (AED).

### Executive Summary:

- The failure to make adequate water infrastructure investments at all levels of government has severe economic, safety, health, and national security consequences.
- The construction equipment industry is highly sensitive to the challenges facing our nation's water infrastructure because it has such a substantial impact on equipment distributors. Each dollar invested by government in water projects creates 12 cents in equipment market opportunity.
- The job creation potential of substantial water infrastructure investment is unequaled. A \$1 billion investment in water and wastewater infrastructure could create up to 26,669 jobs.
- Congress should quickly reauthorize the Clean Water and Drinking Water SRF programs to dramatically increase investment levels and search for a more long-term solution to our nation's water needs, including through a clean water trust fund.

I am the president and general manager of Vermeer MidSouth, a family-owned company headquartered in Memphis, Tennessee that sells, rents, and services Vermeer construction equipment. We have seven locations in Mississippi, Tennessee, Louisiana, and Arkansas, including a facility in Representative Boozman's district in Springdale. Vermeer MidSouth has 50 employees, down from over 70 prior to the economic downturn.

AED is the national trade association representing authorized, independent distributors of construction, mining, forestry, and agricultural equipment. AED has more than 700 members, the overwhelming majority of which are small businesses. Approximately 48 percent of the association's distributor members report annual revenues of \$10 million or less.

AED members supply the equipment that builds America's highways, bridges, airports, sewers, and drinking water systems, and AED has a longstanding commitment to strong federal infrastructure programs. It is no surprise that water infrastructure investment is therefore among our top legislative priorities.

*The association of leaders in equipment distribution.*

Testimony of Dennis Vander Molen/Vermeer MidSouth  
 On behalf of the Associated Equipment Distributors  
 Before the U.S. House of Representatives Committee on Transportation & Infrastructure  
 Subcommittee on Water Resources and Environment  
 July 15, 2010  
 Page 2 of 5

I appreciate the opportunity to come before the Committee to discuss how equipment distributors and other small companies are affected by the State Revolving Fund (SRF) programs and other water infrastructure funding sources.

***The National Recession Has Been a Construction Equipment Industry Depression***

The construction equipment industry has been affected as much as any other by the recent economic downturn. For us, the recession has been nothing short of a depression. A study conducted last year by IHS Global Insight for AED and the Association of Equipment Manufacturers (AEM) painted a grim picture of equipment industry economic conditions.<sup>1</sup> The study found that from 2007 to 2009, spending on construction equipment fell 50.1 percent. The drop in demand for new equipment has had devastating employment consequences. Over the last three years, the construction equipment industry – manufacturers, distributors, and maintenance providers – shed 257,700 jobs or 37 percent of its work force.

The effects of the downturn in our industry have been felt well beyond our dealer yards and manufacturing plants. IHS Global Insight estimated that the equipment industry depression cost an additional 274,700 jobs in the broader economy. Suppliers to equipment manufacturers have been hit particularly hard, losing 134,000 positions. Taken together, the downturn in the equipment industry cost the U.S. economy 550,000 jobs on a peak to trough basis. Put another way, as of September 2009 the U.S. economy had lost 6.9 million jobs in the recession. Of that total, eight percent, or two out of every 25 jobs lost, can be linked to the downturn in construction equipment purchasing.

AED's own internal surveying supports IHS Global Insight's findings. An AED member survey conducted in April 2010 confirms the dismal condition of the construction equipment industry. Since January 2007, AED members have taken difficult and painful steps to keep their companies in business:

- 75 percent of AED members have laid off workers
- 68 percent have eliminated positions through attrition
- 64 percent have reduced salaries and wages
- 64 percent have sold equipment from their rental fleets at a loss
- 36 percent have reduced health insurance benefits
- 32 percent have suspended participation in a workforce development program (e.g., training partnership with a local community college)
- 21 percent have cancelled the opening of a new facility
- 17 percent have closed one or more facilities

Fundamentally, the AED survey results reinforced IHS Global Insight's original determination that the economic downturn has taken a devastating toll on equipment distributors and their employees.

<sup>1</sup> IHS Global Insight, *U.S. Construction Equipment: Powering Jobs and Dollars* (Sept. 2009)  
<http://www.startusupusa.com/pdf/09-29-09-Global-Insight-Construction-Equipment-Report.pdf>

Testimony of Dennis Vander Molen/Vermeer MidSouth  
 On behalf of the Associated Equipment Distributors  
 Before the U.S. House of Representatives Committee on Transportation & Infrastructure  
 Subcommittee on Water Resources and Environment  
 July 15, 2010  
 Page 3 of 5

***New, Multi-Year Water Infrastructure Authorization Laws Are Critical to the Economic Recovery of the Equipment Industry and the Nation***

There is a strong connection between federal infrastructure investment and equipment markets. In fact, a study conducted by AED and the National Utility Contractors Association (NUCA) determined that 12 percent of the cost of the average underground water utility project is attributable to equipment purchases, rentals, and services.<sup>2</sup>

As such, the Water Quality Investment Act (HR 1262), which would authorize \$19.4 billion over the next five years for wastewater infrastructure and water quality-related programs, including \$14 billion over five years for the Clean Water SRF, would greatly aid the equipment industry. The \$14 billion provided for sewer construction alone would create an estimated \$1.68 billion in equipment market opportunity over the next five years. I commend this subcommittee for its leadership on this important legislation, which was approved by the House of Representatives with strong, bipartisan support on March 12, 2009. HR 1262 will put people back to work in well-paying manufacturing, sales, and product support jobs in communities around the country.

In the spring of 2008, AED initiated research to quantify the market impact of infrastructure investment on both the construction equipment industry and the overall economy. The study was conducted by Stephen Fuller, Ph.D., the Dwight Shar faculty chair at George Mason University (GMU) in Fairfax, Virginia and director of GMU's Center for Regional Analysis.<sup>3</sup>

Dr. Fuller determined that every dollar of direct spending for the purchase of heavy construction equipment generates a total of \$3.19 in economic impact. That is one dollar of direct spending, and \$2.19 in indirect and induced economic activity from the re-spending of monies paid to equipment distributors in other sectors of the national economy. In 2007, the \$10.2 billion in direct spending for the purchase and lease of heavy construction equipment generated an estimated \$9.2 billion in personal earnings (\$903,200 per \$1 million in direct equipment outlays) and supported more than 265,000 jobs (26 jobs per \$1 million in direct equipment outlays).

To further illustrate the broad reach of water infrastructure investment throughout all sectors of the economy, in summer 2009 the Clean Water Council (CWC), of which AED is a leading member, announced the results of a highly anticipated study regarding the impact that water and wastewater infrastructure has on the economy.

The study, *Sudden Impact: Assessment of Short-Term Economic Impacts of Water and Wastewater Projects in the United States*, demonstrates the significant economic benefits of water and

<sup>2</sup> Klein, Christian A., *Economic Stimulus Act Having Positive Effect, But Additional Stimulus Needed: A Study of the Impact of Capital Investment Incentives and Infrastructure Spending on Utility Contractors* (July 2008) <<http://www.aednews.com/aednuca/2008-NUCA-AED-Survey-Report-Final.pdf>>

<sup>3</sup> Stephen Fuller, Ph.D., *Sales of Heavy Construction Equipment as a Percentage of Construction Spending and Related Economic Impacts* (2008) <<http://www.aednet.org/government/pdf-2008/Fuller-Report.pdf>>

Testimony of Dennis Vander Molen/Vermeer MidSouth  
 On behalf of the Associated Equipment Distributors  
 Before the U.S. House of Representatives Committee on Transportation & Infrastructure  
 Subcommittee on Water Resources and Environment  
 July 15, 2010  
 Page 4 of 5

wastewater infrastructure projects; both during project construction and well after project completion.<sup>4</sup> Specifically, the report shows that a \$1 billion investment in water and wastewater infrastructure results in total national output (i.e., demand for products and services in all industries) of between \$2.87 and \$3.46 billion, creates up to 26,669 new jobs (with average annual earnings for the construction portion of the jobs at an impressive \$50,396) and generates personal (household) income of between \$1.01 and \$1.06 billion. About one half of those jobs are in industries outside of water and wastewater construction, further illustrating the broad reach of the initial investment.

In addition, each \$1 billion invested generates approximately \$82.4 million in state and local tax revenue. The results are based on actual data collected from 116 water and wastewater construction projects in five demographically diverse states, including 73 different counties. The projects were completed in 2006 and 2007 and encompass a comprehensive array of geographic regions, project types, sizes, materials, construction methods, and labor markets.

***Addressing America's Water Infrastructure Crisis Will Have Broad Societal Benefits***

We are at a critical moment for America's water infrastructure policy. Many commentators believe clean water is so precious that in the future nations will fight wars over this resource the way battles today are fought over oil. Nonetheless, every day, in communities across the country, pipes are breaking at great cost and risk to local governments, municipalities, the public, and the environment.

Our nation's water infrastructure needs are dire. Years of underfunding have taken their toll on one of our land's greatest resources—clean water. Recent studies underscore the need for action in the face of an imminent crisis. Additional investment is necessary to curb the approximately 1.26 trillion gallons estimated by federal government of untreated wastewater entering the nation's waterways every year as a result of aging pipes and overstressed water systems. This untreated water affects us locally and nationally, from public health concerns to environmental conservation. The American Society of Civil Engineers gave the nation's drinking water and wastewater infrastructure a D-, the lowest grade of any infrastructure category.<sup>5</sup>

Additionally, the Environmental Protection Agency (EPA) recently released *The Clean Watersheds Needs Survey 2008* (CWNS).<sup>6</sup> It documents a \$43.4 billion (17 percent) increase in investment needs over the 2004 CWNS report. The EPA estimates that as of January 1, 2008, nationwide capital investment needs for wastewater pollution control are \$298.1 billion. The figure includes \$192.2 billion for publicly-owned wastewater pipes and treatment facilities, \$63.6 billion for combined sewer overflow corrections, and \$42.3 billion for stormwater management.

<sup>4</sup> Clean Water Council, *Sudden Impact: Assessment of Short-Term Economic Impacts of Water and Wastewater Projects in the United States* (2009) <[http://www.nuca.com/files/public/CWC\\_Sudden\\_Impact\\_Report\\_FINAL.pdf](http://www.nuca.com/files/public/CWC_Sudden_Impact_Report_FINAL.pdf)>

<sup>5</sup> The American Society of Civil Engineers, *Report Card for America's Infrastructure* <<http://www.infrastructurereportcard.org/>>

<sup>6</sup> The United States Environmental Protection Agency, *The Clean Watersheds Needs Survey 2008* (2010) <<http://epa.gov/cwns/cwns2008rtc/cwns2008rtc.pdf>>



Testimony of Dennis Vander Molen/Vermeer MidSouth  
On behalf of the Associated Equipment Distributors  
Before the U.S. House of Representatives Committee on Transportation & Infrastructure  
Subcommittee on Water Resources and Environment  
July 15, 2010  
Page 5 of 5

Our wastewater needs are in addition to the \$334.8 billion investment EPA estimates is necessary to repair and rebuild our nation's drinking water infrastructure in the most recent *Drinking Water Infrastructure Needs Survey and Assessment* released in 2009.<sup>7</sup>

The nation's aging water infrastructure is reaching its expected life span and Congress must take the issue seriously and begin to make up for years of neglect by enacting a long-term multi-year reauthorization of the SRF programs with substantial new funding for our economy, national security, health, and welfare.

### **Conclusions**

Our nation faces an unparalleled infrastructure crisis. Immediate and aggressive congressional action is necessary to ensure that our water infrastructure system does not deteriorate further and that the federal government has the resources it needs to address the crisis. The problem will only be more expensive to solve as time goes on.

The small business-dominated construction equipment industry is directly impacted by federal infrastructure spending and thousands of jobs are affected. The current uncertainty surrounding federal infrastructure programs is contributing to volatility in equipment markets. At the same time, equipment distributors and their employees suffer the consequences of under-investment in infrastructure along with other businesses and the general public. Our communities are constantly dealing with the challenges of water main breaks, contaminated drinking water, and sewer overflows.

AED therefore urges Congress to enact long-term Clean and Drinking Water SRF reauthorization bills that dramatically upgrade our deteriorating water infrastructure in urban and rural areas, and to eventually search for dedicated sources to consistently fund projects at an adequate level.

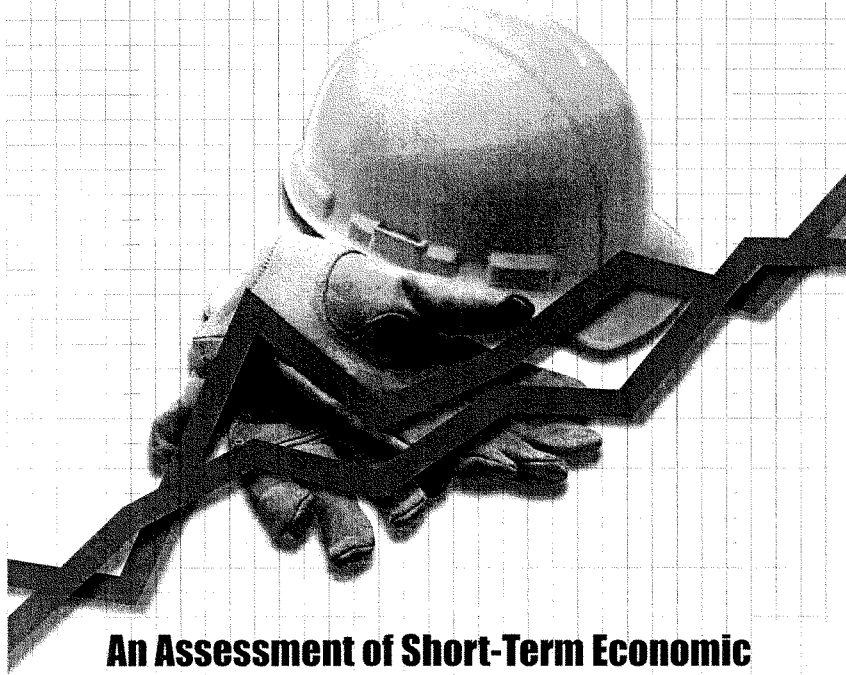
We look forward to working with the members of this subcommittee and with all your House and Senate colleagues in a bipartisan manner to achieve these goals.

For more information regarding this statement, please contact:

Christian A. Klein  
Vice President of Government Affairs and Washington Counsel  
Associated Equipment Distributors  
121 North Henry Street  
Alexandria, VA 22314  
Tel. 703.739.9513  
Fax 703.739.9488  
E-mail [cklein@aednet.org](mailto:cklein@aednet.org)

<sup>7</sup> The United States Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment* (2009) < [http://www.epa.gov/safewater/needssurvey/pdfs/2007/report\\_needssurvey\\_2007.pdf](http://www.epa.gov/safewater/needssurvey/pdfs/2007/report_needssurvey_2007.pdf)>

# Sudden Impact



## **An Assessment of Short-Term Economic Impacts of Water and Wastewater Construction Projects in the United States**



CLEAN WATER COUNCIL  
*Established by America's Water Infrastructure Act*

## Acknowledgement



This assessment was prepared for the Clean Water Council (CWC), a coalition of 35 national organizations dedicated to protecting and enhancing America's water and wastewater infrastructure. The report was prepared by PA Consulting Group, a leading global management, systems and technology consulting firm.

The project was made possible by generous financial support from the following members of the CWC and its corporate partners:

- American Council of Engineering Companies
- American Road and Transportation Builders Association
- American Society of Civil Engineers
- Associated Equipment Distributors
- Association of Equipment Manufacturers
- Caterpillar
- Ductile Iron Pipe Research Association
- John Deere Construction Equipment Company
- Laborers-Employers Cooperation and Education Trust
- National Stone, Sand and Gravel Association
- National Utility Contractors Association
- Plastics Pipe Institute
- Portland Cement Association
- The Vinyl Institute
- Water and Sewer Distributors of America

ACEC

ARIBA

ASCE



AED



DUCTILE IRON PIPE  
RESEARCH ASSOCIATION



JOHN DEERE



NSSGA

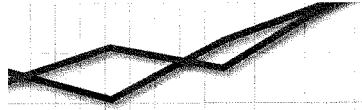


PLASTICS  
PIPE  
INSTITUTE

PCA



The CWC is headquartered at 4301 N. Fairfax Dr., Suite 360, Arlington VA 22203, (703) 358-9300.  
Please visit [www.waternewsupdate.com](http://www.waternewsupdate.com) for additional information about the CWC.



## ***Table of Contents***

Acknowledgement . . . . .	2
Background and Purpose . . . . .	4
Key Findings . . . . .	6
Methodology . . . . .	7
Results and Analysis:	
United States Overall . . . . .	10
California . . . . .	12
Georgia . . . . .	16
Minnesota . . . . .	22
New Mexico . . . . .	25
Pennsylvania . . . . .	29



Photo courtesy of the Ductile Iron Pipe Research Association

## Background and Purpose

Water and wastewater pipelines, treatment plants and related facilities are core components of our environmental infrastructure. The condition of our nation's environmental infrastructure has deteriorated significantly as a direct result of perpetual underinvestment. Water and wastewater capital "needs estimates" produced by the U.S. Environmental Protection Agency (EPA) are nothing short of staggering. In fact, the EPA's 2002 *Clean Water and Drinking Water Infrastructure Gap Analysis* forecast an alarming \$534 billion gap between current investment and projected

needs over 20 years for water and wastewater infrastructure if federal funding was not increased. (That funding has in fact been significantly cut over the past few years.) Two years later, the EPA's 2004 *Clean Watersheds Needs Survey* documented existing nationwide wastewater infrastructure needs alone at \$202.5 billion. In 2009, EPA projected 20-year needs for drinking water infrastructure alone at \$334.8 billion.

In addition, the American Society of Civil Engineers (ASCE) has given America's wastewater infrastructure and drinking water infrastructure letter grades of "D minus" in their most recent (January, 2009) *Report Card for America's Infrastructure*. Clearly, there is a consensus among government, industry and academic professionals that the condition of this infrastructure has gone from bad to worse. This consensus is supported by the first-hand experiences of communities across the land as they manage the fallout from collapsed and deteriorated water and wastewater facilities. (See [www.waternewsupdate.com](http://www.waternewsupdate.com) for daily reports highlighting environmental infrastructure failures.)

In light of the size and scope of the documented national needs, legislators, policy makers and planners at all levels of government need to know the short-term economic impacts and value added to local economies by construction projects pertaining to water treatment and distribution, and wastewater collection and treatment. This assessment provides data demonstrating that water, sewer and storm water management projects do in fact add immediate value to the local economy in three well-defined ways during the time period of construction:

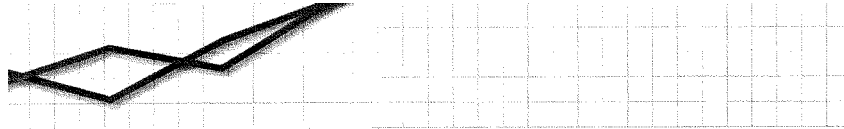
1. Direct impacts through jobs and the purchase of materials and supplies directly related to the construction and operation of



09NUCA Study-36.indd Sec1:4

© 2009 Clean Water Council

6/8/09 1:17:42 PM



the project.

2. Indirect impacts through jobs and the purchase of equipment, materials and supplies by vendors indirectly related to the construction and operation of the project.
3. Induced impacts supported by spending and re-spending of the income earned by workers in 1 and 2 above, often described as the "multiplier effect."

There are also long-term economic benefits that result from these projects during the multi-decade life expectancy of each facility, including higher private sector profitability, increased private investment in plant and equipment, improved labor productivity, a stronger tax base and future employment.

These benefits are summarized in *America's Environmental Infrastructure* (1990), which is available by request from the CWC. In addition, these projects generate a number of quality of life benefits, such as a reliable supply of clean water for human consumption and household use, public safety (fire protection and flood control), and environmental protection (safeguarding our waterways, fisheries, recreational lands, and flora and fauna from sewage, contaminated storm water runoff and other forms of pollution). While these lasting benefits are not the focus of this short-term economic assessment, it is important to recognize that they occur.



© 2009 Clean Water Council

## Key Findings



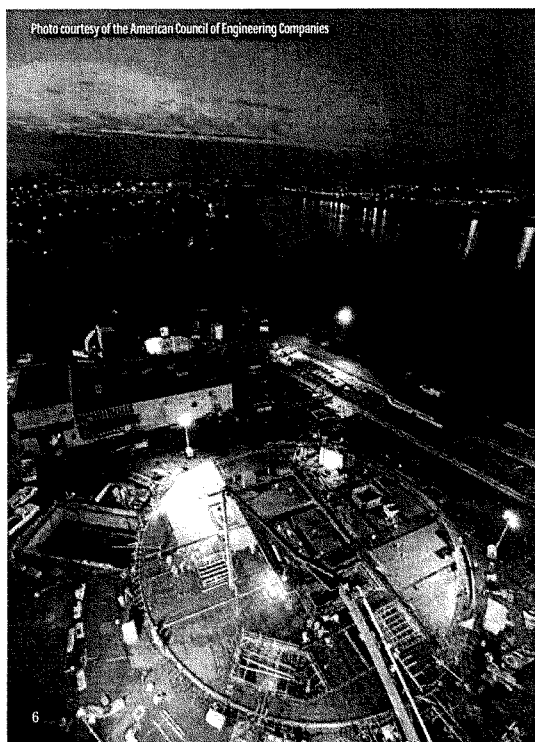
Investments in water and wastewater infrastructure have immediate, substantial and far-reaching effects on the economy.

- At the national level, an investment of \$1 billion almost triples in size as total demand for goods and services reaches an estimated \$2.87 to \$3.46 billion.
- The total effect on economic demand is

smaller at the state level, but direct investments in water and wastewater infrastructure can nearly double as expenditures for necessary supplies and household spending impact the economy.

- Spending to rebuild our infrastructure affects a wide range of economic sectors. Engineering services, heavy equipment, truck transport, and pipe materials are needed to complete infrastructure projects, but businesses and households, in turn, spend money on goods and services across a wide array of sectors.
- An estimated 20,003 to 26,669 jobs can result from a national investment of \$1 billion. These opportunities are spread across the economy with more than one-half of the jobs in industries other than water and wastewater construction.
- Personal incomes and economic security are impacted by infrastructure investment. An increase in total employee compensation accompanies job creation at the national, state, and local levels.
- State and local revenues increase as infrastructure is built or improved, though the size of effects vary by location, size, and type of project.

Photo courtesy of the American Council of Engineering Companies



6



## Methodology

Our study is designed to estimate the economic impacts of water and wastewater infrastructure on local, state, and national economies. Key objectives included quantifying the following effects:

- What is the indirect effect of infrastructure investment? That is, what is the economic impact on industries that supply necessary products and services, such as engineering services, truck transport, or pipelines?
- What is the impact on economic demand as households re-spend income in the local economy? That is, to what extent are other businesses (e.g., retail establishments, professional and personal services, housing) affected as infrastructure projects provide jobs and personal income to households?
- How many jobs can be attributed to infrastructure investment? Are these jobs primarily in water and wastewater construction sectors or are relatively large numbers of jobs also created in other sectors?

To address these questions, the study uses data from recently completed projects across 5 states, draws on regional input-output models that allow us to differentiate among impacts, and utilizes local data as well as hypothetical scenarios to estimate effects at local, state, and national levels of analysis.

We defined a study area comprised of five states: California, Georgia, Minnesota, New Mexico, and Pennsylvania. These states were selected to capture a range of economic conditions as well as regional variation in climate and labor markets.

Estimates of local economic impacts are based on data from recently completed projects. While limited to only 5 states, these projects capture variation in size (fairly small to very large) and type (e.g., replacing, rehabilitating, or installing new water and wastewater pipes or treatment facilities). State- and national-

estimates are based on hypothetical investments of \$1 billion to facilitate comparison.

We invited members of the National Utility Contractors Association in the five target states to provide data on water and wastewater projects. Data on project type, location, contract value and costs were gathered for 116 projects from 35 contractors and represented 73 counties across the five states.

Project cost data were analyzed using input-output models. These models are a technique for quantifying the transactions between industries. When a firm in Industry A receives a \$1M order to install new water pipes, it must purchase supplies and services from firms in Industries B, C, and D. Input-output models capture these relationships and make it possible to estimate economic effects above and beyond the initial investments.

We used IMPLAN – a computer software package for input-output modeling – to estimate the indirect effects of infrastructure investment (impact on industries that are related to water and wastewater construction) as well as the secondary effects of household spending in the local economy. Using IMPLAN, we can also estimate impacts on jobs, employee compensation, and



© 2009 Clean Water Council



## Methodology

state and local tax revenues.

We also used RIMS II (Regional Input-Output Modeling System) to examine the national and state-level effects of infrastructure investment. Like IMPLAN, RIMS II is a method for accounting for interindustry relationships within a geographic region using I-O tables that show, for each industry, the distribution of the inputs purchased and the outputs sold. Because the methodologies underlying IMPLAN and RIMS II differ, we use both approaches to estimate the range of impacts on jobs, employee compensation, and output.

### Design Study

The study is designed to reflect regional and local variation.

**Study area:** California, Georgia, Minnesota, New Mexico, and Pennsylvania define the geographic boundaries over which economic impacts were measured. These states were selected to reflect variation in

region, local economies, climate, and labor conditions.

**Case Studies:** Actual construction projects within each state capture variation in project size and local economies. In addition, taking inventory of what is known about actual projects fuels the models with real-world data and more accurately reflects existing activity.

**Time frame for analysis:** Projects completed in 2006 and 2007 were eligible for selection to ensure results were based on recent construction activity.

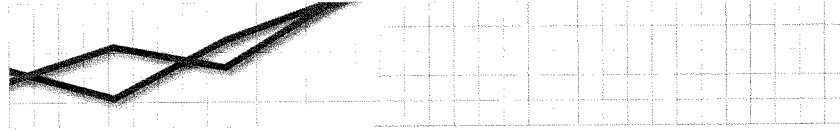
### Develop Model

Transparency is essential for building a credible model.

**Software:** IMPLAN and RIMS II are computer software packages that consist of procedures for estimating local input-output models and associated databases.

**Input-Output models:** Input-output models are a technique for quantifying interactions between firms, industries, and social institutions within a local economy. IMPLAN models include outputs and inputs





from 440 industrial sectors, value added, employment, wages and business taxes paid, imports and exports, final demand by households and government, capital investment, business inventories, marketing margins, and inflation factors. RIMS II provides multipliers for nearly 500 industries.

**Multipliers:** Multipliers quantify how certain changes (i.e., in jobs, earnings, or sales) in one industry will have effects on other industries in the region. Multipliers are aptly called estimators of the 'ripple effect' and are available at the national, state and county levels.

**Data sources:** The economic source data for IMPLAN models includes the system of national accounts for the US based on data collected by the US Department of Commerce, US Bureau of Economic Activity, US Bureau of Labor Statistics, and other federal and state agencies. All analyses used 2007 IMPLAN data (released in October 2008). RIMS II uses national and regional I-O tables from the US Bureau of Economic Activity.

**Industry:** The 2007 IMPLAN data classifies water and wastewater pipe construction activity in the 'Construction of other new non residential structures' which corresponds to the updated classification used by the US Bureau of Economic Activity. The corresponding RIMS II sector is construction.

### Collect Case Studies

Actual project data provide real world results.

**Sample:** Members of the National Utility Contractors Association in the five target states were invited by phone and email to provide data on water and wastewater pipe construction projects completed in 2006 and 2007. In total, data from 116 projects were analyzed, representing 35 contractors, 5 states, and 73 counties.

**Data collection:** Respondents reported project data electronically or by fax. Information was collected on type and location of project, contract value and project costs, and year of completion. As needed, follow-up phone calls were made to clarify questions about the data or try to obtain additional information.

**Data checks:** County-level data can be unreliable if the county has sparse economic activity or is thinly populated. Internal checks were conducted to ensure case data and local level inputs used were reliable and in-line with state inputs.

### Estimate Impacts

Economic impact results help prioritize planning &

investment decisions.

The economic impacts at the state level, and county level for actual pipe construction projects, were estimated using IMPLAN software and economic multiplier data. Briefly, the analysis produced the following estimates:

**Direct effects:** The output, jobs, and income that are directly related to the construction of the project.

**Indirect effects:** The additional output, jobs, and incomes for suppliers and vendors indirectly related to the construction project. These reflect the broader impacts in the community such as expanding business among local vendors and suppliers.

**Induced effects:** The expansion of local commercial business as a result of income re-spent by persons employed by the construction project sector or by the suppliers and vendors that indirectly support that sector.



## Results and Analysis - United States

A \$1 billion investment in water and wastewater infrastructure at the national level has substantial and far-reaching effects throughout the economy.

- The total effect of a \$1 billion investment almost triples in size to an estimated \$2.87 to \$3.46 billion in economic demand.
- Industries indirectly related to water and wastewater infrastructure experience an estimated \$918 million in demand. These industries are indirectly affected by investments in water and wastewater infrastructure because they provide services that support project design (e.g., architectural and engineering services) or products and supplies essential for project completion (e.g., industrial machinery and equipment, truck transport).



Photo courtesy of the American Society of Civil Engineers

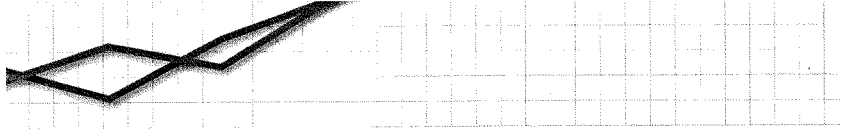
- Ripple effects on economic demand can range across a number of industries and amount to an estimated \$949 million. A wide range of industries that are not related, directly or indirectly, to building or improving water and wastewater infrastructure nonetheless see demand for their products or services increase as households re-spend income in the economy. These effects occur in sectors as varied as bookkeeping services,

energy and telecommunications, health care, motor vehicles, food retail stores, dining establishments, and amusement and recreation services.

### What Jobs?

Besides construction jobs, a \$1 billion investment in water and sewer projects generates measurable national employment in 325 other standard industry classifications, everything from tires to tortillas. For every 20,003 jobs created, at least 100 workers are hired in the short-term, in each of the following industry segments:

Construction other new non-residential	8,366
Architectural, engineering, and related services	851
Food services and drinking places	738
Wholesale trade	498
Real estate	469
Employment services	420
Offices of physicians, dentists, and other health practitioners	273
Hospitals	266
Services to buildings and dwellings	229
Truck transportation	224
Retail - General merchandise	222
Retail - Food and beverage	218
Automotive repair and maintenance, except car washes	194
Legal services	178
Nursing and residential care facilities	178
Monetary authorities and depository credit intermediation	166
Retail - Motor vehicle and parts	159
Management of companies and enterprises	153
Securities, commodity contracts, investments, and related activities	151
Accounting, tax preparation, bookkeeping, and payroll services	145
Civic, social, professional, and similar organizations	145
Private households	145
Retail - Nonstore	136
Maintenance and repair construction of nonresidential maintenance and repair	127
Retail - Clothing and clothing accessories	117
Insurance carriers	114
Retail - Miscellaneous	109

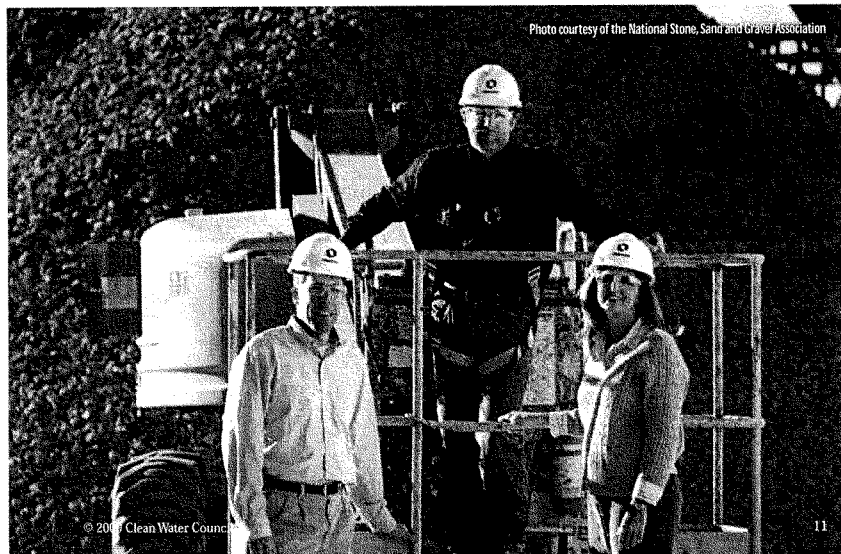


- An estimated 20,003 to 26,669 jobs are created. About one-half of these jobs are in industries outside of water and wastewater construction, further illustrating the broad reach of the initial investment.
- The economic security of households is strengthened. Total employee compensation – a category that includes wages and salaries as well as contributions to social insurance programs such as Social Security – is enhanced by an estimated \$1 billion. Job creation includes an estimated 8,366 jobs in the pipe construction sector where average earnings of more than \$50,000 exceeds median household income for the US.

A \$1B investment in pipe construction in the

United States results in the following economic impacts:

<b>Total output</b>	<b>2867.5-3461.7 M</b>
Business expenditures	1000.0 M
Sales of suppliers	918.5 M
Household spending	949.0 M
<b>Personal Income</b>	<b>1011.2-1062.9 M</b>
<b>State and local tax revenue</b>	<b>82.4 M</b>
<b>Employment</b>	<b>20,003-26,669 jobs</b>
Pipe construction	8,366 jobs
Other	11,637 jobs
<b>Average Earnings</b>	<b>\$50,396</b>



© 2007 Clean Water Council

11

## Results and Analysis - California

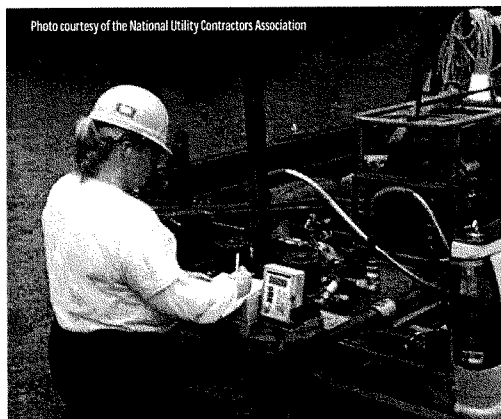


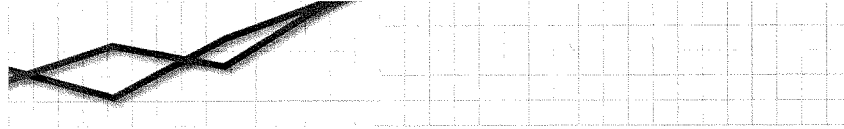
Photo courtesy of the National Utility Contractors Association

A new 84" groundwater replenishment project in Orange County illustrates the local economic impacts of these investments in the water and wastewater infrastructure. The \$2.5 million project fell just short of generating another \$2 million in demand for goods and services across other economic sectors. Industries that support water and wastewater construction by providing services and supplies experienced \$780,000 in demand. Re-spending of income in the local economy generated \$950,000 in sales. About 28 jobs were created, 17 of which were in the construction sector. An estimated \$1.8 million in employee compensation (wages, salaries, and payroll contribution to social insurance programs) derived from the initial \$2.5 million project, which also raised state and local tax revenues by approximately \$110,000.

- An investment of \$1 billion in California's water and wastewater infrastructure would result in an estimated \$1.8 to 2.5 billion demand for goods and services across the state's economy.
- Industries that provide goods and services in support of infrastructure projects would experience over \$370 million in economic demand. A wide range of other industries would sell an estimated \$448 million in goods and services as businesses and households spend money in the economy.
- 12,390 to 19,574 jobs would be created. About 7,000 of these jobs would be in the pipe construction sector where average earnings of \$68,000 exceed the statewide median household income of about \$50,000.
- We analyzed data on 16 recently completed projects that ranged in size from \$250,000 to \$60 million and covered 12 counties.

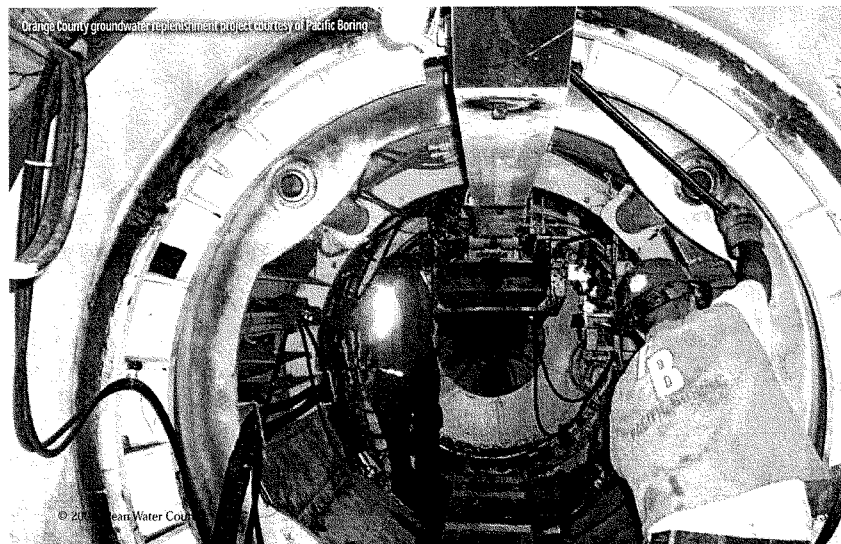
A \$1B investment in pipe construction in California results in the following economic impacts:

<b>Total output of the region</b>	<b>1826-2511.3 M</b>
Local business expenditures	1000.0 M
Sales of suppliers	377.5 M
Household spending	448.5 M
<b>Personal Income</b>	<b>775.2-815.2 M</b>
<b>State and local tax revenue</b>	<b>47.5 M</b>
<b>Employment</b>	<b>12,390-19,574 jobs</b>
Pipe construction	7,085 jobs
Other	5,305 jobs
<b>Average Earnings</b>	<b>\$68,099</b>



### Case Studies

Project Name	Booster Pump Station	Bypass Mud Outlets	Interceptor Overflow Structures	Force Main Reconstruction
County	Alameda	Alameda	Alameda	Contra Costa
<b>Total output of the region</b>	<b>11.98 M</b>	<b>2.94 M</b>	<b>1.61 M</b>	<b>5.06 M</b>
Local business expenditures	7.22 M	1.77 M	0.97 M	3.17 M
Sales of suppliers	2.06 M	0.51 M	0.28 M	0.89 M
Household spending	2.70 M	0.66 M	0.36 M	1.00 M
<b>Personal income</b>	<b>5.49 M</b>	<b>1.35 M</b>	<b>0.74 M</b>	<b>2.29 M</b>
<b>State &amp; local tax revenue</b>	<b>0.31 M</b>	<b>0.07 M</b>	<b>0.04 M</b>	<b>0.11 M</b>
<b>Employment</b>	<b>79</b>	<b>19</b>	<b>11</b>	<b>33</b>
Pipe construction	47	12	6	21
Other	32	7	5	12



## Results and Analysis - California

### Case Studies

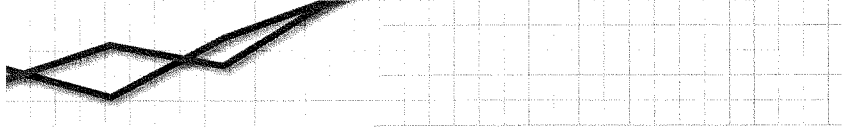
Project Name	Sewer Lines	Water/Sewer Replacement	GWRS Unit II	Force Main
County	Kern	Merced	Orange	Sacramento
<b>Total output of the region</b>	<b>0.65 M</b>	<b>1.65 M</b>	<b>4.17 M</b>	<b>55.66 M</b>
Local business expenditures	0.40 M	1.17 M	2.45 M	34.9 M
Sales of suppliers	0.13 M	0.22 M	0.78 M	9.91 M
Household spending	0.12 M	0.27 M	0.95 M	10.9 M
<b>Personal income</b>	<b>0.27 M</b>	<b>0.66 M</b>	<b>1.84 M</b>	<b>24.7 M</b>
<b>State &amp; local tax revenue</b>	<b>0.02 M</b>	<b>0.03 M</b>	<b>0.11 M</b>	<b>1.35 M</b>
<b>Employment</b>	<b>5</b>	<b>13</b>	<b>28</b>	<b>412</b>
Pipe construction	3	9	17	251
Other	2	4	11	161

Photo courtesy of Association of Equipment Manufacturers



14

© 2009 Clean Water Council



Project Name	36" Waterline	Upper NW Interceptor	WWTP Improve.	Transmission Main
County	Sacramento	Sacramento	San Benito	San Francisco
<b>Total output of the region</b>	<b>2.28 M</b>	<b>1.83 M</b>	<b>0.33 M</b>	<b>0.52 M</b>
Local business expenditures	1.43 M	1.15 M	0.25 M	0.35 M
Sales of suppliers	0.41 M	0.33 M	0.04 M	0.09 M
Household spending	0.48 M	0.36 M	0.04 M	0.08 M
<b>Personal income</b>	<b>1.01 M</b>	<b>0.81 M</b>	<b>0.14 M</b>	<b>0.25 M</b>
<b>State &amp; local tax revenue</b>	<b>0.05 M</b>	<b>0.04 M</b>	<b>0.01 M</b>	<b>0.01 M</b>
<b>Employment</b>	<b>17</b>	<b>14</b>	<b>3</b>	<b>3</b>
Pipe construction	10	8	2	2
Other	7	6	1	1

Project Name	Storm Drainage Improvements	Interceptor Rehab	Sanitary Sewer Trunk Line	Force Main
County	San Joaquin	Santa Clara	Tulare	Yolo
<b>Total output of the region</b>	<b>6.14 M</b>	<b>6.75 M</b>	<b>7.75 M</b>	<b>90.85 M</b>
Local business expenditures	3.97 M	4.47 M	5.35 M	60.79 M
Sales of suppliers	0.92 M	1.12 M	1.10 M	16.53 M
Household spending	1.25 M	1.16 M	1.30 M	13.53 M
<b>Personal income</b>	<b>2.64 M</b>	<b>3.18 M</b>	<b>3.26 M</b>	<b>40.66 M</b>
<b>State &amp; local tax revenue</b>	<b>0.15 M</b>	<b>0.16 M</b>	<b>0.17 M</b>	<b>2.05 M</b>
<b>Employment</b>	<b>46</b>	<b>43</b>	<b>63</b>	<b>663</b>
Pipe construction	29	29	42	429
Other	17	14	21	234



## Results and Analysis - Georgia

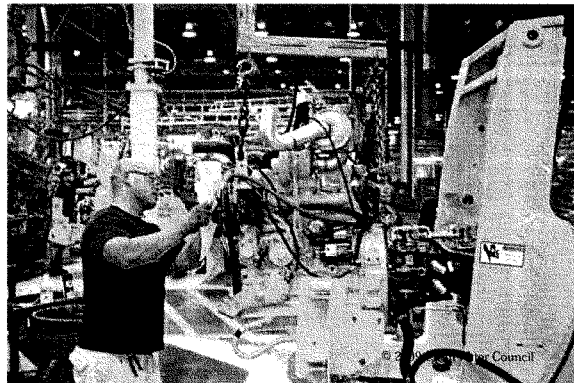
- An investment of \$1 billion in Georgia's water and wastewater infrastructure would result in an estimated \$1.76 to 2.6 billion demand for goods and services across the state's economy.
- Industries that provide goods and services in support of infrastructure projects would experience over \$390 million in economic demand. A wide range of other industries would sell an estimated \$365 million in goods and services as households spend money in the economy.
- 14,867 to 22,254 jobs would be created with slightly fewer than 6,000 occurring in sectors other than water and wastewater construction. Nearly 9,000 jobs would be in the pipe construction sector where earnings average \$44,260.
- We analyzed data on 33 recently completed projects that ranged in size from \$100,000 to \$164 million and covered 20 counties.

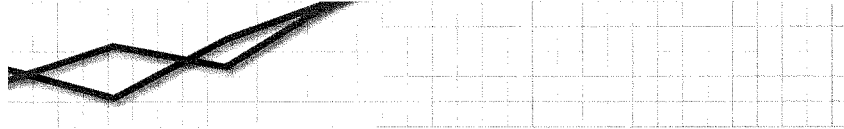
A \$4.3 million wastewater treatment plant in Chatham County illustrates the local economic impacts of these investments. The plant generated another \$2.6 million in demand for goods and services across other economic sectors. Slightly less than \$1.5 million was spent on goods and services that support construction of treatment plants, such as engineering services, industrial machinery, and other equipment and supplies. As households paid for goods and services as varied as telecommunications and child care services, the local economy experienced an estimated \$1 million in demand. More than

60 jobs were created, more than 20 of which were in industries other than pipe construction. An estimated \$2.6 million in employee compensation (wages, salaries, and payroll contribution to social insurance programs) results from the initial \$4.3 million investment, and state and local tax revenues increase an estimated \$160,000.

A \$1B investment in pipe construction in Georgia results in the following economic impacts:

<b>Total output of the region</b>	<b>1758.6-2601.8 M</b>
Local business expenditures	1000.0 M
Sales of suppliers	392.9 M
Household spending	365.7 M
<b>Personal Income</b>	<b>667.9-811.1 M</b>
<b>State and local tax revenue</b>	<b>44.5 M</b>
<b>Employment</b>	<b>14,867-22,254 jobs</b>
Pipe construction	8,959 jobs
Other	5,908 jobs
<b>Average Earnings</b>	<b>\$ 44,260</b>





### Case Studies

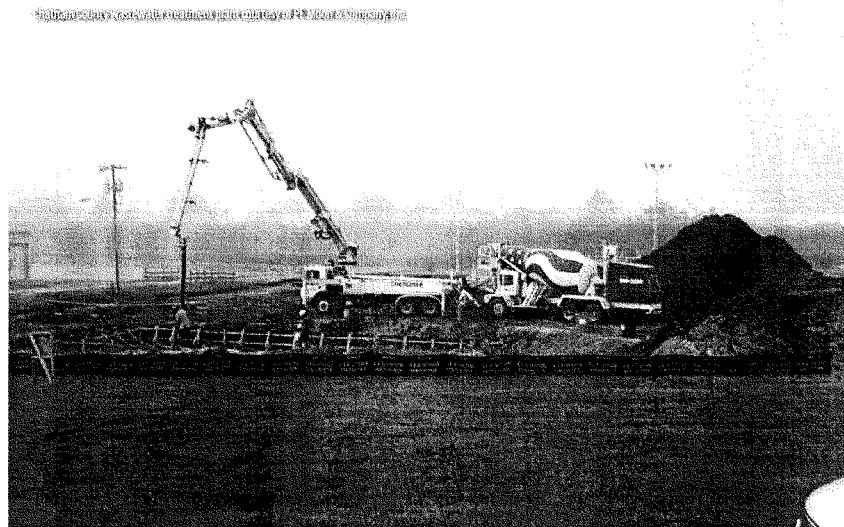
Project Name	12" DIP Water Main	New Sewer & Water Lines	Wastewater Treatment Plt	Wastewater Treatment Plt
County	Barrow	Bibb	Chatham	Chattooga
<b>Total output of the region</b>	<b>0.28 M</b>	<b>1.77 M</b>	<b>6.94 M</b>	<b>9.90 M</b>
Local business expenditures	0.20 M	1.09 M	4.31 M	8.13 M
Sales of suppliers	0.04 M	0.39 M	1.46 M	0.98 M
Household spending	0.04 M	0.29 M	1.17 M	0.79 M
<b>Personal income</b>	<b>0.10 M</b>	<b>0.66 M</b>	<b>2.66 M</b>	<b>3.28 M</b>
<b>State &amp; local tax revenue</b>	<b>0.01 M</b>	<b>0.04 M</b>	<b>0.16 M</b>	<b>0.14 M</b>
<b>Employment</b>	<b>3</b>	<b>16</b>	<b>62</b>	<b>103</b>
Pipe construction	2	10	39	83
Other	1	6	23	20

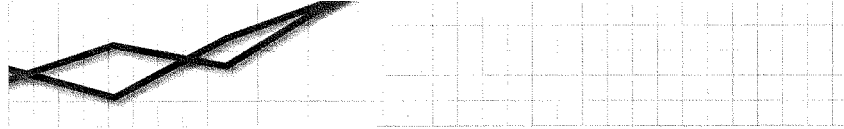
Project Name	Pump Station	WWTP Improvements	Sewer & Water Line Replace.	New Sewer & Water Lines
County	Cherokee	Clarke	Cobb	Cobb
<b>Total output of the region</b>	<b>0.60 M</b>	<b>43.03 M</b>	<b>1.50 M</b>	<b>1.09 M</b>
Local business expenditures	0.42 M	31.07 M	0.93 M	0.67 M
Sales of suppliers	0.10 M	6.93 M	0.30 M	0.22 M
Household spending	0.07 M	5.03 M	0.28 M	0.20 M
<b>Personal income</b>	<b>0.22 M</b>	<b>16.10 M</b>	<b>0.61 M</b>	<b>0.44 M</b>
<b>State &amp; local tax revenue</b>	<b>0.01 M</b>	<b>0.85 M</b>	<b>0.04 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>6</b>	<b>397</b>	<b>13</b>	<b>9</b>
Pipe construction	4	286	8	6
Other	2	111	5	3

## Results and Analysis - Georgia

### Case Studies

Project Name	WWTP Expansion	Water Filter Plant	New Water & Sewer Lines	New Sewer & Water Lines
County	Coweta	Dekalb	Dekalb	Dekalb
<b>Total output of the region</b>	<b>17.74 M</b>	<b>267.2 M</b>	<b>0.55 M</b>	<b>0.34 M</b>
Local business expenditures	12.6 M	164.9 M	0.34 M	0.21 M
Sales of suppliers	2.86 M	51.6 M	0.11 M	0.06 M
Household spending	2.27 M	50.7 M	0.10 M	0.06 M
<b>Personal income</b>	<b>6.39 M</b>	<b>107.0 M</b>	<b>0.22 M</b>	<b>0.13 M</b>
<b>State &amp; local tax revenue</b>	<b>0.36 M</b>	<b>6.68 M</b>	<b>0.01 M</b>	<b>0.01 M</b>
<b>Employment</b>	<b>169</b>	<b>2246</b>	<b>5</b>	<b>3</b>
Pipe construction	120	1410	4	2
Other	49	836	1	1





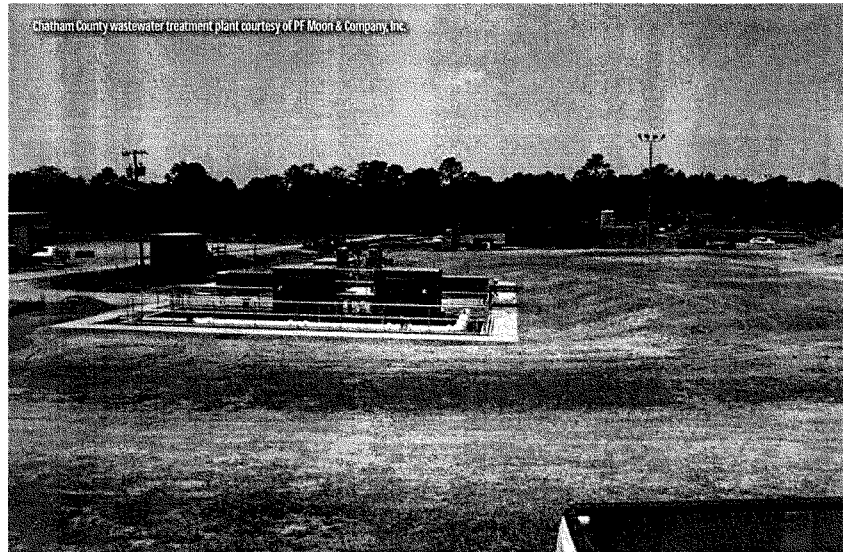
Project Name	Storm Drain Improvements	New Sewer & Water Lines	Wastewater Treatment Plt	Pump Station
County	Dougherty	Fayette	Floyd	Floyd
<b>Total output of the region</b>	<b>4.46 M</b>	<b>0.20 M</b>	<b>6.15 M</b>	<b>1.33 M</b>
Local business expenditures	3.00 M	0.13 M	4.20 M	0.91 M
Sales of suppliers	0.92 M	0.04 M	0.97 M	0.21 M
Household spending	0.55 M	0.03 M	0.97 M	0.21 M
<b>Personal income</b>	<b>1.73 M</b>	<b>0.08 M</b>	<b>2.15 M</b>	<b>0.47 M</b>
<b>State &amp; local tax revenue</b>	<b>0.09 M</b>	<b>&lt;0.01 M</b>	<b>0.13 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>42</b>	<b>2</b>	<b>58</b>	<b>13</b>
Pipe construction	27	1	40	9
Other	15	1	18	4

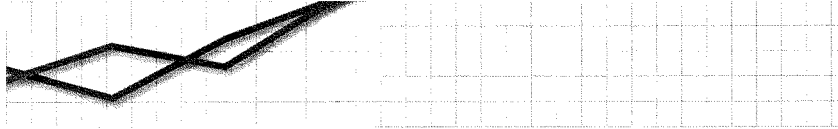
Project Name	Pump Station	Sanitary Sewer	Gravity Sewer	Sewer & Water Line Rehab
County	Floyd	Forsyth	Forsyth	Fulton
<b>Total output of the region</b>	<b>0.60 M</b>	<b>4.37 M</b>	<b>0.20 M</b>	<b>0.84 M</b>
Local business expenditures	0.41 M	2.95 M	0.14 M	0.55 M
Sales of suppliers	0.10 M	0.81 M	0.04 M	0.17 M
Household spending	0.10 M	0.61 M	0.03 M	0.11 M
<b>Personal income</b>	<b>0.17 M</b>	<b>1.84 M</b>	<b>0.09 M</b>	<b>0.34 M</b>
<b>State &amp; local tax revenue</b>	<b>0.01 M</b>	<b>0.10 M</b>	<b>&lt;0.01 M</b>	<b>0.02 M</b>
<b>Employment</b>	<b>6</b>	<b>34</b>	<b>2</b>	<b>7</b>
Pipe construction	4	24	1	5
Other	2	10	1	2

## Results and Analysis - Georgia

### Case Studies

Project Name	New Sewer & Water Lines	Gravity Sewer	Rouse Pipeline and Diffuser	Water Line Improvements
County	Fulton	Gordon	Gwinnett	Gwinnett
<b>Total output of the region</b>	<b>0.16 M</b>	<b>0.23 M</b>	<b>42.87 M</b>	<b>29.20 M</b>
Local business expenditures	0.11 M	0.18 M	26.25 M	17.88 M
Sales of suppliers	0.03 M	0.03 M	8.35 M	5.69 M
Household spending	0.02 M	0.03 M	8.27 M	5.63 M
<b>Personal income</b>	<b>0.07 M</b>	<b>0.08 M</b>	<b>17.64 M</b>	<b>12.02 M</b>
<b>State &amp; local tax revenue</b>	<b>&lt;0.01 M</b>	<b>&lt;0.01 M</b>	<b>1.09 M</b>	<b>0.75 M</b>
<b>Employment</b>	<b>1</b>	<b>2</b>	<b>339</b>	<b>231</b>
Pipe construction	1	2	211	144
Other	0	0	128	87





Project Name	Sanitary Sewer	Sanitary Sewer Replacement	Water & Sewer Utility Relocations	Sewer & Water Line Repairs
County	Gwinnett	Gwinnett	Gwinnett	Gwinnett
<b>Total output of the region</b>	<b>15.25 M</b>	<b>6.66 M</b>	<b>4.90 M</b>	<b>0.83 M</b>
Local business expenditures	9.34 M	4.08 M	3.00 M	0.51 M
Sales of suppliers	2.97 M	1.30 M	0.95 M	0.16 M
Household spending	2.94 M	1.28 M	0.95 M	0.16 M
<b>Personal income</b>	<b>6.28 M</b>	<b>2.74 M</b>	<b>2.02 M</b>	<b>0.34 M</b>
<b>State &amp; local tax revenue</b>	<b>0.39 M</b>	<b>0.17 M</b>	<b>0.13 M</b>	<b>0.02 M</b>
<b>Employment</b>	<b>120</b>	<b>53</b>	<b>39</b>	<b>7</b>
Pipe construction	75	33	24	4
Other	45	20	15	3

Project Name	Pump Station	WWTP Expansion	Water Extension	Water Main Connections	35,000 LF 12" Water Main
County	Henry	Newton	Putnam	Richmond	Troup
<b>Total output of the region</b>	<b>10.72 M</b>	<b>16.50 M</b>	<b>7.03 M</b>	<b>1.35 M</b>	<b>1.44 M</b>
Local business expenditures	7.32 M	12.50 M	5.44 M	1.00 M	1.06 M
Sales of suppliers	1.84 M	1.92 M	0.86 M	0.20 M	0.18 M
Household spending	1.56 M	2.08 M	0.73 M	0.15 M	0.19 M
<b>Personal income</b>	<b>3.94 M</b>	<b>6.19 M</b>	<b>2.40 M</b>	<b>0.52 M</b>	<b>0.54 M</b>
<b>State &amp; local tax revenue</b>	<b>0.23 M</b>	<b>0.31 M</b>	<b>0.13 M</b>	<b>0.03 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>101</b>	<b>149</b>	<b>68</b>	<b>12</b>	<b>13</b>
Pipe construction	69	113	54	9	10
Other	31	36	14	3	3

## Results and Analysis - Minnesota



Photo courtesy of the Laborers-Employers Cooperation and Education Trust

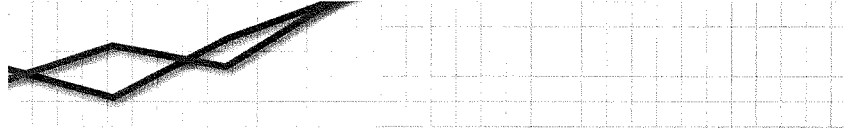
- An investment of \$1 billion in Minnesota's water and wastewater infrastructure would result in an estimated \$1.8 to 2.4 billion demand for goods and services across the state's economy.
- Industries that provide goods and services in support of infrastructure projects would experience over \$400 million in economic demand. A wide range of other industries would sell an estimated \$396 million in goods and services as households spend money in the economy.
- 14,698 to 20,397 jobs would be created with about 6,000 occurring in sectors other than water and wastewater construction and 8,500 jobs in the construction sector where earnings average \$48,122.
- We analyzed data on 11 recently completed projects that ranged in size from \$900,000 to \$14 million and covered 10 counties.

A \$1.8 million storm water treatment project

in Hennepin County illustrates the local economic impacts of these investments. The storm water treatment project generated another \$1.1 million in demand for goods and services across other economic sectors. About \$600,000 was spent on goods and services needed to complete the project, including engineering services, industrial machinery, and other equipment and supplies. Another \$500,000 of other goods and services were sold as a result of household spending. More than 20 jobs were created, 15 in the water pipe construction sector. An estimated \$1.2 million in employee compensation (wages, salaries, and payroll contribution to social insurance programs) derived from the initial \$1.8 million investment, and state and local tax revenues were affected an estimated \$70,000.

A \$1B investment in pipe construction in Minnesota results in the following economic impacts:

<b>Total output for the region</b>	<b>1802.3-2409.4 M</b>
Local business expenditures	1000.0 M
Sales of suppliers	406.3 M
Household spending	396.0 M
<b>Personal Income</b>	<b>685.2-758.3 M</b>
<b>State and local tax revenue</b>	<b>44.1 M</b>
<b>Employment</b>	<b>14,698-20,397 jobs</b>
Pipe construction	8,591 jobs
Other	6,107 jobs
<b>Average Earnings</b>	<b>\$ 48,122</b>



### Case Studies

Project Name	Utility Line Reconstruction	Collection Sys Improvements	Storm water Treatments	Water Collection Sys	Wastewater System
County	Blue Earth	Douglas	Hennepin	Kandiyohi	Wabasha
<b>Total output of the region</b>	<b>1.75 M</b>	<b>4.39 M</b>	<b>2.97 M</b>	<b>2.21 M</b>	<b>1.74 M</b>
Local business expenditures	1.14 M	2.98 M	1.89 M	1.56 M	1.44 M
Sales of suppliers	0.32 M	0.73 M	0.59 M	0.34 M	0.15 M
Household spending	0.29 M	0.68 M	0.49 M	0.31 M	0.15 M
<b>Personal income</b>	<b>0.67 M</b>	<b>1.60 M</b>	<b>1.27 M</b>	<b>0.85 M</b>	<b>0.56 M</b>
<b>State &amp; local tax revenue</b>	<b>0.04 M</b>	<b>0.10 M</b>	<b>0.07 M</b>	<b>0.05 M</b>	<b>0.02 M</b>
<b>Employment</b>	<b>16</b>	<b>43</b>	<b>23</b>	<b>21</b>	<b>18</b>
Pipe construction	10	28	15	14	15
Other	6	15	8	7	3

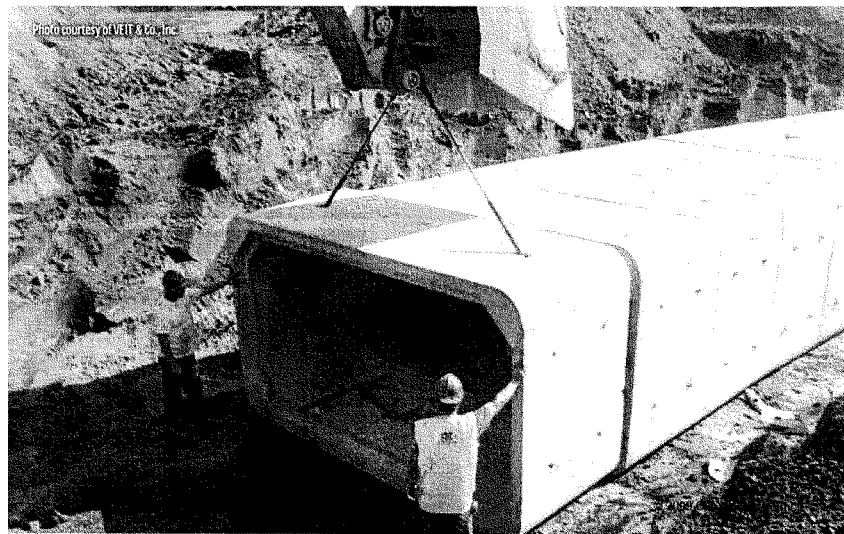




## Results and Analysis - Minnesota

### Case Studies

Project Name	Sewer Lining	Sewer Lining	Sanitary & Storm Sewer Improve.	Storm Sewer Replacement	Utility Rehabilitation	Water Main Extension
County	Ramsey	Ramsey	Renville	St. Louis	Wadena	Wright
<b>Total output of the region</b>	<b>2.06 M</b>	<b>1.88 M</b>	<b>17.72 M</b>	<b>1.67 M</b>	<b>3.53 M</b>	<b>1.25 M</b>
Local business expenditures	1.33 M	1.22 M	14.4 M	1.12 M	2.59 M	0.90 M
Sales of suppliers	0.37 M	0.34 M	1.78 M	0.27 M	0.54 M	0.18 M
Household spending	0.35 M	0.32 M	1.54 M	0.28 M	0.41 M	0.17 M
<b>Personal income</b>	<b>0.91 M</b>	<b>0.83 M</b>	<b>5.95 M</b>	<b>0.65 M</b>	<b>1.14 M</b>	<b>0.48 M</b>
<b>State &amp; local tax revenue</b>	<b>0.05 M</b>	<b>0.04 M</b>	<b>0.26 M</b>	<b>0.03 M</b>	<b>0.07 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>15</b>	<b>14</b>	<b>179</b>	<b>15</b>	<b>37</b>	<b>11</b>
Pipe construction	10	9	145	10	27	8
Other	5	5	34	5	10	3



## Results and Analysis - New Mexico

- An investment of \$1 billion in New Mexico's water and wastewater infrastructure would result in an estimated \$1.7 to 2 billion demand for goods and services across the state's economy.
- Industries that provide goods and services in support of infrastructure projects would experience almost \$390 million in economic demand. A wide range of other industries would sell an estimated \$320 million in goods and services as households spend money in the economy.
- 15,329 to 20,901 jobs would be created with 6,000 occurring in sectors other than water and wastewater construction and more than 9,000 jobs would be in the pipe construction sector where earnings average \$40,930.
- We analyzed data on 18 recently completed projects that ranged in size from \$120,000 to \$9.2 million and covered 10 counties.

A \$2.6 million project to install new water and sewer lines in Dona Ana County illustrates the local economic impacts of these investments. Altogether the infrastructure investment resulted in slightly less than \$4 million in demand for products and services. In addition to the \$2.6 million investment for the water and sewer lines, about \$730,000 were spent on supplies and services necessary to complete such work. Re-spending of income resulted in another \$610,000 in local economic demand as households paid for goods and services ranging from rent, motor vehicles, and gasoline to amusement centers and beverage establishments. More than 40 jobs were created, including an

estimated 27 in water pipe construction sector and another 15 across other economic sectors. An estimated \$1.3 million in employee compensation (wages, salaries, and payroll contribution to social insurance programs) derived from the initial \$2.6 million investment, and state and local tax revenues were affected an estimated \$80,000.

A \$1B investment in pipe construction in New Mexico results in the following economic impacts:

<b>Total output of the region</b>	<b>1711-2014.5 M</b>
Local business expenditures	1000.0 M
Sales of suppliers	389.2 M
Household spending	321.8 M
<b>Personal income</b>	<b>607.6-662.1 M</b>
<b>State and local tax revenue</b>	<b>39.4 M</b>
<b>Regional Employment</b>	<b>15,329-20,901 jobs</b>
Pipe construction	9,272 jobs
Other	6,057 jobs
<b>Average Job Compensation</b>	<b>\$40,930</b>



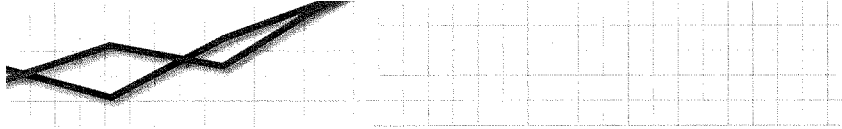
© 2009 Clean Water Council

## Results and Analysis - New Mexico

### Case Studies

Project Name	Water & Wastewater Trans Lines	New 36" & 60" Water Lines	Water & Sewer Lines	Water & Sewer Line Improve.
County	Bernalillo	Bernalillo	Bernalillo	Bernalillo
<b>Total output of the region</b>	<b>14.45 M</b>	<b>5.27 M</b>	<b>4.94 M</b>	<b>0.50 M</b>
Local business expenditures	9.21 M	3.36 M	3.15 M	0.32 M
Sales of suppliers	2.82 M	1.03 M	0.96 M	0.10 M
Household spending	2.42 M	0.88 M	0.83 M	0.08 M
<b>Personal income</b>	<b>5.58 M</b>	<b>2.03 M</b>	<b>1.91 M</b>	<b>0.20 M</b>
<b>State &amp; local tax revenue</b>	<b>0.31 M</b>	<b>0.11 M</b>	<b>0.11 M</b>	<b>0.01 M</b>
<b>Employment</b>	<b>130</b>	<b>47</b>	<b>44</b>	<b>4</b>
Pipe construction	82	30	28	3
Other	48	17	16	1

Project Name	Sewer Line & Storm Drain Improve.	Water Line Replacement	Pipe Bursting	Sewer Line & Lift Station	Wastewater Treatment Plt
County	Dona Ana	Guadalupe	Otero	Rio Arriba	San Juan
<b>Total output of the region</b>	<b>0.81 M</b>	<b>1.66 M</b>	<b>0.72 M</b>	<b>0.39 M</b>	<b>4.92 M</b>
Local business expenditures	0.54 M	1.46 M	0.56 M	0.30 M	3.33 M
Sales of suppliers	0.15 M	0.12 M	0.08 M	0.05 M	0.81 M
Household spending	0.12 M	0.08 M	0.08 M	0.04 M	0.78 M
<b>Personal income</b>	<b>0.27 M</b>	<b>0.59 M</b>	<b>0.24 M</b>	<b>0.13 M</b>	<b>1.88 M</b>
<b>State &amp; local tax revenue</b>	<b>0.02 M</b>	<b>0.02 M</b>	<b>0.01 M</b>	<b>0.01 M</b>	<b>0.11 M</b>
<b>Employment</b>	<b>8</b>	<b>16</b>	<b>8</b>	<b>4</b>	<b>42</b>
Pipe construction	5	14	6	3	28
Other	3	2	2	1	14



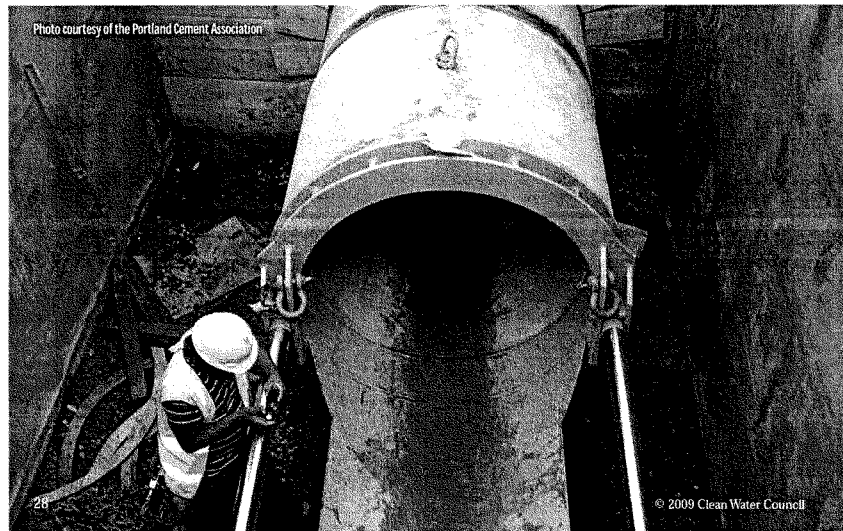
Project Name	Water & Sewer Line Improve.	Water & Sewer Line Improve.	WWTP Upgrade	New Water & Sewer Lines
County	Bernalillo	Cibola	Cibola	Dona Ana
<b>Total output of the region</b>	<b>0.47 M</b>	<b>0.69 M</b>	<b>0.56 M</b>	<b>3.98 M</b>
Local business expenditures	0.30 M	0.54 M	0.44 M	2.65 M
Sales of suppliers	0.09 M	0.06 M	0.05 M	0.73 M
Household spending	0.08 M	0.08 M	0.07 M	0.61 M
<b>Personal income</b>	<b>0.18 M</b>	<b>0.26 M</b>	<b>0.22 M</b>	<b>1.35 M</b>
<b>State &amp; local tax revenue</b>	<b>0.01 M</b>	<b>0.01 M</b>	<b>0.01 M</b>	<b>0.08 M</b>
<b>Employment</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>42</b>
Pipe construction	3	5	4	27
Other	1	1	1	15



## Results and Analysis - New Mexico

### Case Studies

Project Name	New Well Bldg, Pump, & Lines	Sewer Improvements	WWTP Expansion	Water Storage Tank Upgrade	WWTP Upgrade
County	Sandoval	Sandoval	Santa Fe	Santa Fe	Taos
<b>Total output of the region</b>	<b>1.62 M</b>	<b>0.16 M</b>	<b>4.93 M</b>	<b>0.31 M</b>	<b>2.34 M</b>
Local business expenditures	1.20 M	0.12 M	3.27 M	0.20 M	1.72 M
Sales of suppliers	0.24 M	0.02 M	0.90 M	0.06 M	0.29 M
Household spending	0.18 M	0.02 M	0.76 M	0.05 M	0.33 M
<b>Personal income</b>	<b>0.62 M</b>	<b>0.06 M</b>	<b>1.73 M</b>	<b>0.11 M</b>	<b>0.79 M</b>
<b>State &amp; local tax revenue</b>	<b>0.03 M</b>	<b>&lt;0.01 M</b>	<b>0.10 M</b>	<b>0.01 M</b>	<b>0.04 M</b>
<b>Employment</b>	<b>15</b>	<b>2</b>	<b>50</b>	<b>3</b>	<b>24</b>
Pipe construction	11	1	32	2	17
Other	4	1	18	1	7



## Results and Analysis - Pennsylvania

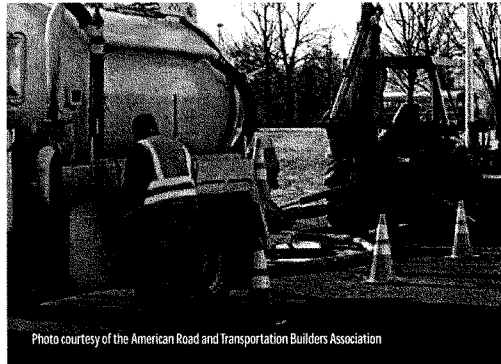


Photo courtesy of the American Road and Transportation Builders Association

- An investment of \$1 billion in Pennsylvania's water and wastewater infrastructure would result in an estimated \$1.8 to 2.6 billion demand for goods and services across the state's economy.
- Industries that provide goods and services in support of infrastructure projects would experience almost \$430 million in economic demand. A wide range of other industries would sell an estimated \$438 million in goods and services as households spend money in the economy.
- 14,524 to 20,037 jobs would be created with more than 6,000 in sectors other than water and wastewater construction and more than 8,000 jobs in the pipe construction sector where earnings average \$52,037.
- We analyzed data on 38 recently completed projects that ranged in size from \$80,000 to \$10.3 million and covered 21 counties.

A \$2 million pumping station in Bucks County illustrates the local economic impacts

of these investments. Altogether the infrastructure investment resulted in about \$3.2 million in demand for products and services. In addition to the \$2 million investment for the pumping station, about \$640,000 were spent on supplies and services necessary to complete such work. Re-spending of household income resulted in another \$570,000 in demand for goods and services in the local economy. More than 20 jobs were created, most of which (17) were in the water pipe construction sector and another 9 across other economic sectors. An estimated \$1.3 million in employee compensation (wages, salaries, and payroll contribution to social insurance programs) derived from the

initial \$2 million investment, and state and local tax revenues were affected an estimated \$80,000.

A \$1B investment in pipe construction in Pennsylvania results in the following economic impacts:

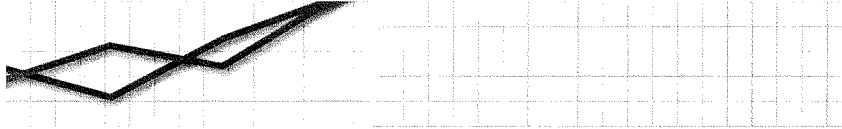
<b>Total output of the region</b>	<b>1867-2609.7 M</b>
Local business expenditures	1000.0 M
Sales of suppliers	428.9 M
Household spending	438.2 M
<b>Personal Income</b>	<b>725.9-790 M</b>
<b>State and local tax revenue</b>	<b>46.6 M</b>
<b>Regional Employment</b>	<b>14,524-20,037 jobs</b>
Pipe construction	8,247 jobs
Other	6,277 jobs
<b>Average Earnings</b>	<b>\$ 52,037</b>

## Results and Analysis - Pennsylvania

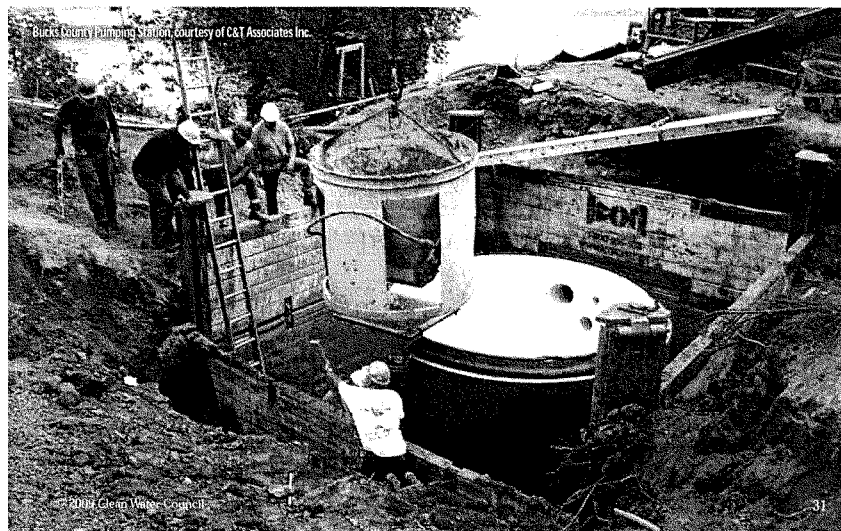
### Case Studies

Project Name	Sanitary Sewer System Improvements	Interceptor Replacement	Water Line & Services	Sanitary Sewer Replacement
County	Adams	Allegheny	Beaver	Beaver
<b>Total output of the region</b>	<b>0.78 M</b>	<b>0.79 M</b>	<b>1.87 M</b>	<b>1.70 M</b>
Local business expenditures	0.55 M	0.48 M	1.24 M	1.13 M
Sales of suppliers	0.11 M	0.16 M	0.33 M	0.30 M
Household spending	0.12 M	0.15 M	0.30 M	0.28 M
<b>Personal income</b>	<b>0.30 M</b>	<b>0.33 M</b>	<b>0.75 M</b>	<b>0.69 M</b>
<b>State &amp; local tax revenue</b>	<b>0.02 M</b>	<b>0.02 M</b>	<b>0.04 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>7</b>	<b>6</b>	<b>16</b>	<b>15</b>
Pipe construction	5	4	11	10
Other	2	2	5	5

Project Name	Valve Vault & Tie-ins	Water & Sewer Extension	Sewer & Water Lines	Pipe Bursting, Reline & Rehab
County	Beaver	Bedford	Bedford	Blair
<b>Total output of the region</b>	<b>0.12 M</b>	<b>1.89 M</b>	<b>0.39 M</b>	<b>7.57 M</b>
Local business expenditures	0.08 M	1.43 M	0.29 M	4.92 M
Sales of suppliers	0.02 M	0.21 M	0.04 M	1.38 M
Household spending	0.02 M	0.26 M	0.05 M	1.26 M
<b>Personal income</b>	<b>0.05 M</b>	<b>0.73 M</b>	<b>0.15 M</b>	<b>2.84 M</b>
<b>State &amp; local tax revenue</b>	<b>&lt;0.01 M</b>	<b>0.04 M</b>	<b>0.01 M</b>	<b>0.16 M</b>
<b>Employment</b>	<b>1</b>	<b>17</b>	<b>4</b>	<b>72</b>
Pipe construction	1	12	3	46
Other	0	5	1	26



Project Name	Wastewater Treatment Plant	New Pumping Station	Pumping Station Rehab.	New Collector Sewer
County	Bucks	Bucks	Bucks	Butler
<b>Total output of the region</b>	<b>3.95 M</b>	<b>3.22 M</b>	<b>1.87 M</b>	<b>16.45 M</b>
Local business expenditures	2.45 M	2.00 M	1.16 M	10.35 M
Sales of suppliers	0.79 M	0.64 M	0.37 M	3.48 M
Household spending	0.70 M	0.57 M	0.33 M	2.63 M
<b>Personal income</b>	<b>1.59 M</b>	<b>1.30 M</b>	<b>0.75 M</b>	<b>6.34 M</b>
<b>State &amp; local tax revenue</b>	<b>0.09 M</b>	<b>0.08 M</b>	<b>0.04 M</b>	<b>0.36 M</b>
<b>Employment</b>	<b>32</b>	<b>26</b>	<b>15</b>	<b>136</b>
Pipe construction	21	17	10	87
Other	11	9	5	49

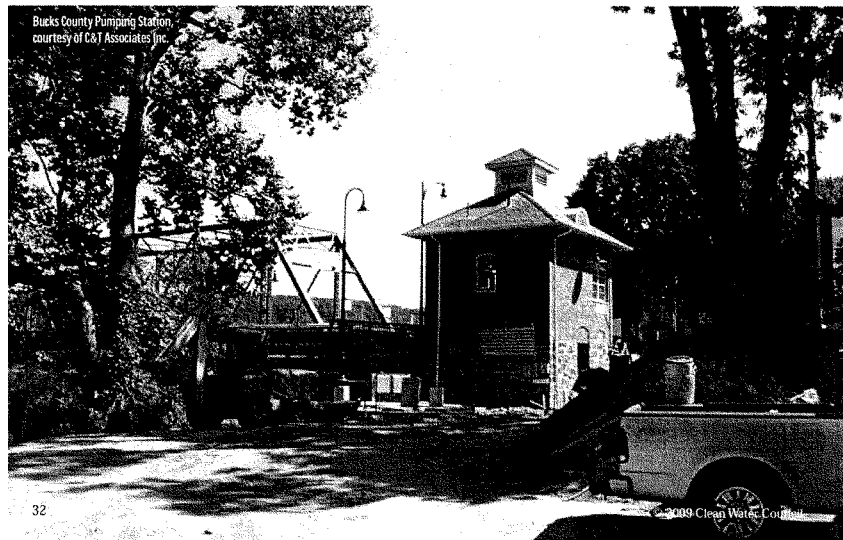




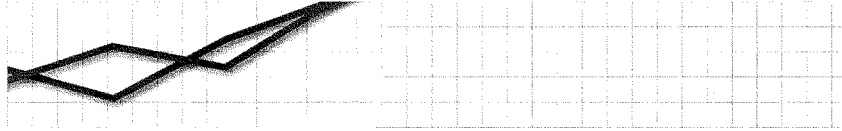
## Results and Analysis - Pennsylvania

### Case Studies

Project Name	New Collector Sewer & Appurt.	Sewer Main & Lateral Rpl.	Sewer Main & Lateral Rpl.	Waste Water Collection Sys
County	Butler	Clearfield	Clearfield	Clearfield
<b>Total output of the region</b>	<b>14.9 M</b>	<b>10.89 M</b>	<b>8.07 M</b>	<b>4.67 M</b>
Local business expenditures	9.35 M	7.39 M	5.48 M	3.12 M
Sales of suppliers	3.13 M	1.92 M	1.43 M	0.82 M
Household spending	2.37 M	1.57 M	1.17 M	0.67 M
<b>Personal income</b>	<b>5.72 M</b>	<b>4.00 M</b>	<b>2.97 M</b>	<b>1.71 M</b>
<b>State &amp; local tax revenue</b>	<b>0.32 M</b>	<b>0.21 M</b>	<b>0.15 M</b>	<b>0.09 M</b>
<b>Employment</b>	<b>122</b>	<b>105</b>	<b>78</b>	<b>45</b>
Pipe construction	78	70	52	30
Other	44	35	26	15



32



Project Name	Pump Station Sludge Tank	Sanitary Sewer Replacement	Sewer Lines	Sewer Extension
County	Dauphin	Dauphin	Fayette	Franklin
<b>Total output of the region</b>	<b>4.19 M</b>	<b>1.94 M</b>	<b>7.57 M</b>	<b>0.55 M</b>
Local business expenditures	2.75 M	1.27 M	5.12 M	0.37 M
Sales of suppliers	0.81 M	0.37 M	1.32 M	0.09 M
Household spending	0.63 M	0.29 M	1.13 M	0.09 M
<b>Personal income</b>	<b>1.77 M</b>	<b>0.82 M</b>	<b>2.90 M</b>	<b>0.21 M</b>
<b>State &amp; local tax revenue</b>	<b>0.09 M</b>	<b>0.04 M</b>	<b>0.15 M</b>	<b>0.01 M</b>
<b>Employment</b>	<b>34</b>	<b>16</b>	<b>70</b>	<b>5</b>
Pipe construction	22	10	46	3
Other	12	6	24	2

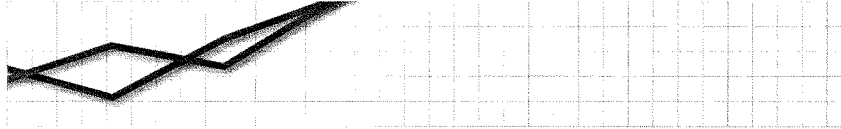
Project Name	Sanitary Sewer	Wastewater System Improvement	Sewer Lines & Appurt.	Wastewater Treatment Plt
County	Huntingdon	Jefferson	Jefferson	Jefferson
<b>Total output of the region</b>	<b>1.50 M</b>	<b>8.31 M</b>	<b>3.65 M</b>	<b>1.49 M</b>
Local business expenditures	1.13 M	6.16 M	2.70 M	1.11 M
Sales of suppliers	0.17 M	1.15 M	0.51 M	0.21 M
Household spending	0.20 M	1.00 M	0.44 M	0.18 M
<b>Personal income</b>	<b>0.54 M</b>	<b>2.84 M</b>	<b>1.25 M</b>	<b>0.51 M</b>
<b>State &amp; local tax revenue</b>	<b>0.03 M</b>	<b>0.14 M</b>	<b>0.06 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>14</b>	<b>84</b>	<b>37</b>	<b>15</b>
Pipe construction	11	62	27	11
Other	3	22	10	4

## Results and Analysis - Pennsylvania

### Case Studies

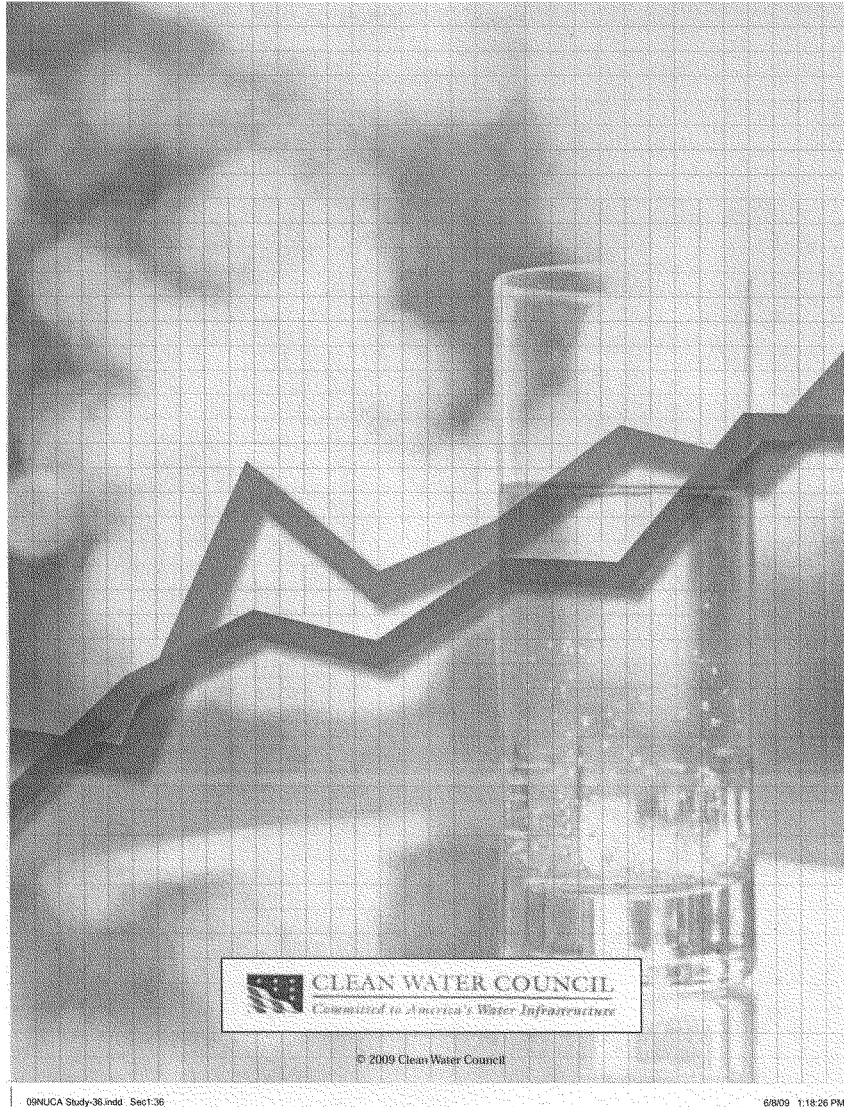
Project Name	Storm Sewer	Sludge Holding Tank Filter Building w/ UV	Storm Water Pump Station Improvement	Interceptor Replacement
County	Jefferson	Lebanon	Lycoming	Mercer
<b>Total output of the region</b>	<b>0.35 M</b>	<b>10.45 M</b>	<b>1.39 M</b>	<b>3.04 M</b>
Local business expenditures	0.26 M	7.07 M	0.91 M	2.07 M
Sales of suppliers	0.05 M	1.69 M	0.24 M	0.48 M
Household spending	0.04 M	1.69 M	0.24 M	0.50 M
<b>Personal income</b>	<b>0.12 M</b>	<b>4.02 M</b>	<b>0.54 M</b>	<b>1.16 M</b>
<b>State &amp; local tax revenue</b>	<b>0.01 M</b>	<b>0.22 M</b>	<b>0.03 M</b>	<b>0.06 M</b>
<b>Employment</b>	<b>4</b>	<b>93</b>	<b>13</b>	<b>28</b>
Pipe construction	3	62	8	18
Other	1	31	5	10

Project Name	WWTP Renovation	Renovation of Primary Sed Tank	Water Distribution Lines	Sewer Lines & Appurtenances
County	Montgomery	Philadelphia	Schuykill	Westmoreland
<b>Total output of the region</b>	<b>5.42 M</b>	<b>6.05 M</b>	<b>8.73 M</b>	<b>7.41 M</b>
Local business expenditures	3.37 M	4.07 M	6.2 M	4.64 M
Sales of suppliers	1.02 M	0.98 M	1.29 M	1.48 M
Household spending	1.03 M	1.00 M	1.24 M	1.30 M
<b>Personal income</b>	<b>2.30 M</b>	<b>2.76 M</b>	<b>3.26 M</b>	<b>2.92 M</b>
<b>State &amp; local tax revenue</b>	<b>0.13 M</b>	<b>0.13 M</b>	<b>0.15 M</b>	<b>0.17 M</b>
<b>Employment</b>	<b>41</b>	<b>43</b>	<b>79</b>	<b>65</b>
Pipe construction	27	28	56	40
Other	14	15	23	15



Project Name	Sewage Coll Sys & Pump Station	Water Main Transmission	Underground Water Tanks	Water Filtration Plant Rehab
County	Westmoreland	Westmoreland	Westmoreland	Westmoreland
<b>Total output of the region</b>	<b>7.36 M</b>	<b>4.58 M</b>	<b>4.22 M</b>	<b>4.11 M</b>
Local business expenditures	4.60 M	2.86 M	2.64 M	2.57 M
Sales of suppliers	1.47 M	0.91 M	0.84 M	0.82 M
Household spending	1.29 M	0.80 M	0.74 M	0.72 M
<b>Personal income</b>	<b>2.89 M</b>	<b>1.80 M</b>	<b>1.66 M</b>	<b>1.61 M</b>
<b>State &amp; local tax revenue</b>	<b>0.17 M</b>	<b>0.10 M</b>	<b>0.10 M</b>	<b>0.09 M</b>
<b>Employment</b>	<b>64</b>	<b>40</b>	<b>37</b>	<b>36</b>
Pipe construction	40	25	23	22
Other	24	15	14	14

Project Name	Wastewater Treatment Plant	Force Main and Trunk Sewer Upgrade
County	York	York and Adams
<b>Total output of the region</b>	<b>4.91 M</b>	<b>1.18 M</b>
Local business expenditures	3.09 M	0.74 M
Sales of suppliers	0.92 M	0.22 M
Household spending	0.90 M	0.22 M
<b>Personal income</b>	<b>2.01 M</b>	<b>0.48 M</b>
<b>State &amp; local tax revenue</b>	<b>0.11 M</b>	<b>0.03 M</b>
<b>Employment</b>	<b>41</b>	<b>10</b>
Pipe construction	25	6
Other	16	4





*Advancing the water, sewer, gas and telecommunications construction industries*

---

Written Statement  
by the

National Utility Contractors Association

before the

Subcommittee on Water Resources and Environment  
House Committee on Transportation and Infrastructure

addressing

“Putting America Back to Work Through Clean Water  
Infrastructure Investment”

July 15, 2010

---

**NATIONAL UTILITY CONTRACTORS ASSOCIATION**

4301 North Fairfax Drive • Suite 360 • Arlington, Virginia 22203-1627 • Phone: 703-358-9300 • Fax: 703-358-9307 • [www.nuca.com](http://www.nuca.com)

Madam Chair, Ranking Member Boozman, and Honorable Members of the Subcommittee, the National Utility Contractors Association (NUCA), appreciates the opportunity to submit written testimony regarding today's hearing regarding job creation and economic benefits that come with investment in clean water infrastructure. NUCA is a family of nearly 1,700 companies from across the nation that build, repair and maintain underground water, wastewater, gas, electric and telecommunications systems.

NUCA also serves as chair of the Clean Water Council (CWC), a coalition of 34 national organizations representing underground construction contractors, design professionals, manufacturers and suppliers, labor representatives and others committed to ensuring a high quality of life through sound environmental infrastructure. These industries work collectively to improve critical underground systems that unquestionably enhance America's quality of life. For your reference, a list of CWC members is attached to this testimony.

NUCA commends you for your past efforts to make environmental infrastructure investment part of legislation dealing with economic recovery, reauthorization of the Environmental Protection Agency's Clean Water State Revolving Fund, as well as in several proposed "jobs" bills.

#### **CONSTRUCTION CONTINUES TO FACE STEEP UNEMPLOYMENT**

The water infrastructure market has gone from bad to worse in recent years. In addition to relatively stagnant levels of federal funding to refurbish these systems, state budgets have been hit hard because of the downturn in the housing market, which in turn has lowered revenues from property taxes. The most recent job-loss numbers released by the U.S. Department of Labor's Bureau of Labor Statistics (July 2<sup>nd</sup>) reports that the unemployment rate in construction is currently at 20.1 percent—more than twice the national unemployment rate. The industry lost 22,000 jobs in June, following the loss of 35,000 jobs in May. There are approximately 1.4 million construction workers currently out of a job as the industry continues to recover from the economic downturn.

To make matters worse, the rising cost of construction materials and labor has reduced the purchasing power of public works dollars. Fewer contracts are going out to bid, which only increases the number of bids competing for limited projects. The inevitable result is less work on this deteriorating infrastructure and fewer jobs for those who do this critical work. By neglecting this fundamental infrastructure, we're not just turning our back on public health and environmental protection. We're also missing huge opportunities to put Americans in a broad range of industries back to work.

#### **ECONOMIC BENEFITS OF INFRASTRUCTURE INVESTMENT**

Underground water and wastewater projects are generally recognized for their effectiveness in enhancing public health and environmental protection. Often overlooked, however, are the *economic* benefits that result from this work. It is not an exaggeration to say that clean water projects go hand-in-hand with a healthy economy in that they create jobs, expand the local tax base and improve our overall quality of life.

Tens of thousands of quality, high-paying jobs are created with every \$1 billion in federal funding. Importantly, the job creation and increased economic activity that comes with it enhances local economies and provides disadvantaged communities with opportunities to revitalize and empower themselves.

It is important to highlight three important types of economic impacts that are associated with water and wastewater infrastructure projects. There are:

- **Direct effects:** The output, jobs, and income that are directly related to the construction of the project.
- **Indirect effects:** The additional output, jobs, and incomes for suppliers and vendors indirectly related to the construction project. These reflect the broader impacts in the community such as expanding business among local vendors and suppliers.
- **Induced effects:** The expansion of local commercial business as a result of income re-spent by persons employed by the construction project sector or by the suppliers and vendors that indirectly support that sector.

#### **SUDDEN IMPACT OF FUNDING WATER INFRASTRUCTURE PROJECTS**

Last year, the Clean Water Council released a new economic impact study on the job creation and economic benefits that come with water and wastewater infrastructure projects. *Sudden Impact; an Assessment of Short-Term Economic Impacts of Water and Wastewater Construction Projects in the United States* takes a comprehensive look at 116 water and wastewater infrastructure projects in five states and 73 counties conducted in 2006 and 2007. The study has been sent to all House and Senate offices and is referred to in advocacy efforts conducted by the CWC to educate policymakers, media, industry and the general public. Copies of the study in print and/or electronic format are available to members of the subcommittee upon request.

The study provides fresh answers to a number of important questions, and hard data to back them up. How many jobs are created by a typical water or sewer construction project? What are these jobs? How much do they pay? How much additional income accrues because vendors and suppliers experience greater demand for their services? To what extent do benefits—such as jobs, personal income, capital expenditures—impact local economies?

Taking a case study approach on projects in Minnesota, California, Pennsylvania, New Mexico, and Georgia, *Sudden Impact* contains detailed data from recently completed water and wastewater construction projects from diverse communities across the country. Projects of varying sizes in urban, suburban and rural areas are evaluated, and the type of construction (new vs. replacement, open cut vs. trenchless, pipeline vs. treatment plant), as well as factors that affect labor and supply costs, are considered. The report also provides a detailed analysis of the economic impact of each job, with particular attention paid to the local economic impacts.

*Sudden Impact* finds that indeed, investment in underground environmental infrastructure projects results in significant job creation, and jobs are created in scores of industry sectors outside of construction. Additionally, the study indicates that the economic benefits that come with funding water infrastructure are not limited to job creation. Significant impacts on national output, personal spending, and state and local tax bases also transpire.

#### **JOB CREATION AND THE “RIPPLE EFFECT”**

The CWC evaluated the total effect of a \$1 billion investment in water and/or wastewater infrastructure in terms of job creation and other important economic factors. *Sudden Impact* found that every \$1 billion creates up to approximately 27,000 jobs. Average annual earnings within the pipe construction sector were found to be more than \$50,000, and about one-half of these jobs are in industries outside of water and wastewater construction, illustrating the broad reach of investment in this infrastructure.

The “ripple effect” of economic activity that comes with construction projects cannot be understated. Outside of construction jobs, investment in water and wastewater infrastructure projects can generate



measurable employment in 325 other standard industry classifications. Industries such as food services, real estate, health care, automotive repair and maintenance, legal services, retail sales, insurance, amusement and recreation, and various other industry sectors benefit when these projects get off the ground. The ripple effect on economic demand amounts to approximately \$950 million per \$1 billion invested.

The total effect of a \$1 billion investment almost triples national output to an estimated \$2.87 to \$3.46 billion in economic demand for goods and services from other industries such as engineering, manufacturing, distribution and supply. Investment in underground environmental infrastructure also generates approximately \$1.06 billion in personal (household) spending.

Importantly, the study reports that approximately \$82.4 million is generated for state and local tax bases with every \$1 billion invested in these projects. At a time when state and local governments continue to scramble to balance budgets, the need to expand local tax bases is greater now than ever.

The message behind these statistics is clear: investment in water and wastewater infrastructure projects is investment in an American asset, creating countless American jobs in hundreds of American industries, generating state and local tax revenue, and turning out considerable fiscal activity through local economies while rebuilding critical infrastructure at the same time.

The fact that healthy infrastructure is needed to provide for safe drinking water and effective wastewater treatment are fundamental considerations, but think about the economic importance of clean and safe drinking water itself. A community and indeed, an effective society cannot do so without either. Clean water enhances individual productivity through reduced sickness and missed work opportunities, as well as increases community productivity through the influx of new residents and businesses resulting from revitalized neighborhoods. In times of economic difficulty, the funding of construction projects is therefore an effective way to stimulate growth and development far beyond the construction industry.

#### CONCLUSION

America's underground infrastructure connects America, and we could not function without it. Underground systems that move natural gas, telecommunication systems, drinking water and wastewater are fundamental to a vibrant American economy. NUCA submits that ensuring for clean water is not only an obligation but also good business. Investment in this infrastructure creates jobs here—these jobs cannot be outsourced overseas. Investment from any funding source—public or private—will create jobs and generate the economic benefits for countless Americans, regardless of where the money comes from.

The benefits are clear: this investment creates jobs in hundreds of industry sectors, enhances local communities, and expands the local tax bases at a critical time in our economic recovery. The Environmental Protection Agency estimates that \$334 billion is needed for drinking water systems and \$298 billion for wastewater systems over the next 20 years. Recognizing that this critical infrastructure faces nationwide funding needs in the hundreds of billions of dollars, investment in our underground environmental infrastructure should be considered necessary to enhance public health and environmental protection. This, in addition to the significant economic contribution these investments bring, should clearly show that investing in our underground infrastructure is a prime example of good government.

Thank you for the opportunity to submit testimony before the subcommittee, and NUCA is available to answer any questions or provide any further information you require.

### Clean Water Council

	American Concrete Pavement Association		Laborers-Employers Cooperation and Education Trust
	American Concrete Pipe Association		Laborers' International Union of North America
	American Concrete Pressure Pipe Association		Mason Contractors Association of America
	American Council of Engineering Companies		National Association of Sewer Service Companies
	American Public Works Association		National Association of Women in Construction
	American Rental Association		National Precast Concrete Association
	American Road and Transportation Builders Association		National Ready Mixed Concrete Association
	American Society of Civil Engineers		National Society of Professional Engineers
	American Subcontractors Association		National Stone, Sand and Gravel Association
	American Supply Association		National Utility Contractors Association
	Associated Equipment Distributors		Plastics Pipe Institute
	Associated General Contractors of America		Plumbing-Heating-Cooling Contractors Association
	Association of Equipment Manufacturers		Portland Cement Association
	Construction Management Association of America		Uni-Bell PVC Pipe Association
	Ductile Iron Pipe Research Association		The Vinyl Institute
	Interlocking Concrete Pavement Institute		Water and Sewer Distributors of America
	International Union of Operating Engineers		Water and Wastewater Equipment Manufacturers Association



## Washington Suburban Sanitary Commission

14501 Sweitzer Lane • Laurel, Maryland 20707-5901

COMMISSIONERS  
Antonio L. Jones, Chair  
Dr. Roscoe M. Moore, Jr., Vice Chair  
Prem P. Agarwal  
Gene W. Counihan  
Hon. Adrienne A. Mandel  
Joyce Starks

GENERAL MANAGER  
Jerry N. Johnson

July 15, 2010

The Honorable Eddie Bernice Johnson  
Chairwoman  
Subcommittee on Water Resources and Environment  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Chairwoman Johnson:

On behalf of the Washington Suburban Sanitary Commission (WSSC), I want thank you and your Subcommittee for holding your July 15, 2010 oversight hearing on the role water quality infrastructure serves in the creation of jobs to improve the overall economy. As the eighth largest combined water and wastewater utility in the nation, WSSC believes that a steadfast federal financial commitment to improving water-related infrastructure is critical.

The federal government cannot solve the problem alone, but it surely must be a part of the solution. Water is the basic building block to life and reliable, safe water production and delivery is vital to sustainable economic growth. With ever increasing federal mandates and investment needs, I would like to take this opportunity to provide the Subcommittee with WSSC's views on this important issue. I request that our comments be included in the official record of the hearing.

Throughout our 92 year history, WSSC has been committed to being an industry and national leader in water production and wastewater treatment. More recently, we have worked diligently to meet the challenges of restoring our deteriorated infrastructure despite and an almost unprecedented period of economic challenges. As our ratepayers face annual rate increases required largely by the rising cost of doing business, the financial burden they have been forced to shoulder to combat aging and deteriorating infrastructure is staggering. With WSSC estimates in excess of \$10 billion over the next thirty years and national estimates well over a \$1.3 trillion, the time for federal leadership in risk-based financial investments is now.

We appreciate the enactment of the American Recovery and Reinvestment Act (ARRA) that provided assistance to communities to invest in water infrastructure. The amount of funding provided under ARRA was a small step in the right direction.

The Honorable Eddie Bernice Johnson  
July 15, 2010  
Page 2

However, WSSC found that its ability to secure federal funding for more than \$75 million of shovel-ready projects submitted was severely restricted due to the distribution formulas and mechanisms employed. In fact, WSSC found itself at a distinct disadvantage because of a priority placed upon the use of disadvantaged community criterion. The definition employed by U.S. Environmental Protection Agency (EPA) and the State of Maryland precluded approval for many worthy WSSC projects, largely ignoring other criteria including our 1,000 square mile service area and our many advances in asset management and strategic infrastructure planning.

WSSC fell to the bottom of the funding priority list despite the reality that our shovel-ready projects would have provided immediate and direct benefits to disadvantaged communities within Prince George's and Montgomery Counties. Additionally, this once again shifted the burden of repairing and/or replacing deteriorating infrastructure squarely on the backs of WSSC ratepayers during difficult economic times.

I believe that WSSC's experience can serve as a lesson learned from the approaches used in the distribution ARRA funds as the Congress continues to evaluate policy funding decisions, such as those your Subcommittee is considering with this legislation. Specifically, Congress should consider making the approach to distributing funds more flexible by, for example, directing the EPA to revise its definition of disadvantaged communities to clarify that such a definition should be used targets communities, rather than applying the definition only to the geographic region served by the Publicly Owned Treatment Works (POTW). Additionally, Congress should employ a risk-based approach for the distribution of federal assistance in a more targeted way that ensures the federal government and American tax payers a more meaningful return on federal investments. Eligibility should be based on multiple criterion including sound infrastructure asset management and strategic plans, and risk based methodology already employed in defining critical assets for national security needs. If these sorts of revisions are made, communities like those served by WSSC will be in a better position to use limited federal assistance in a manner that will improve water quality, invest in our infrastructure for future generations, and create the largest number of jobs possible.

We would be happy to answer any questions you may have or to provide further information as you consider this important legislation. I thank you for your continued leadership and the Subcommittee for its hard work in this area.

Sincerely,



Jerry N. Johnson  
General Manager/CEO