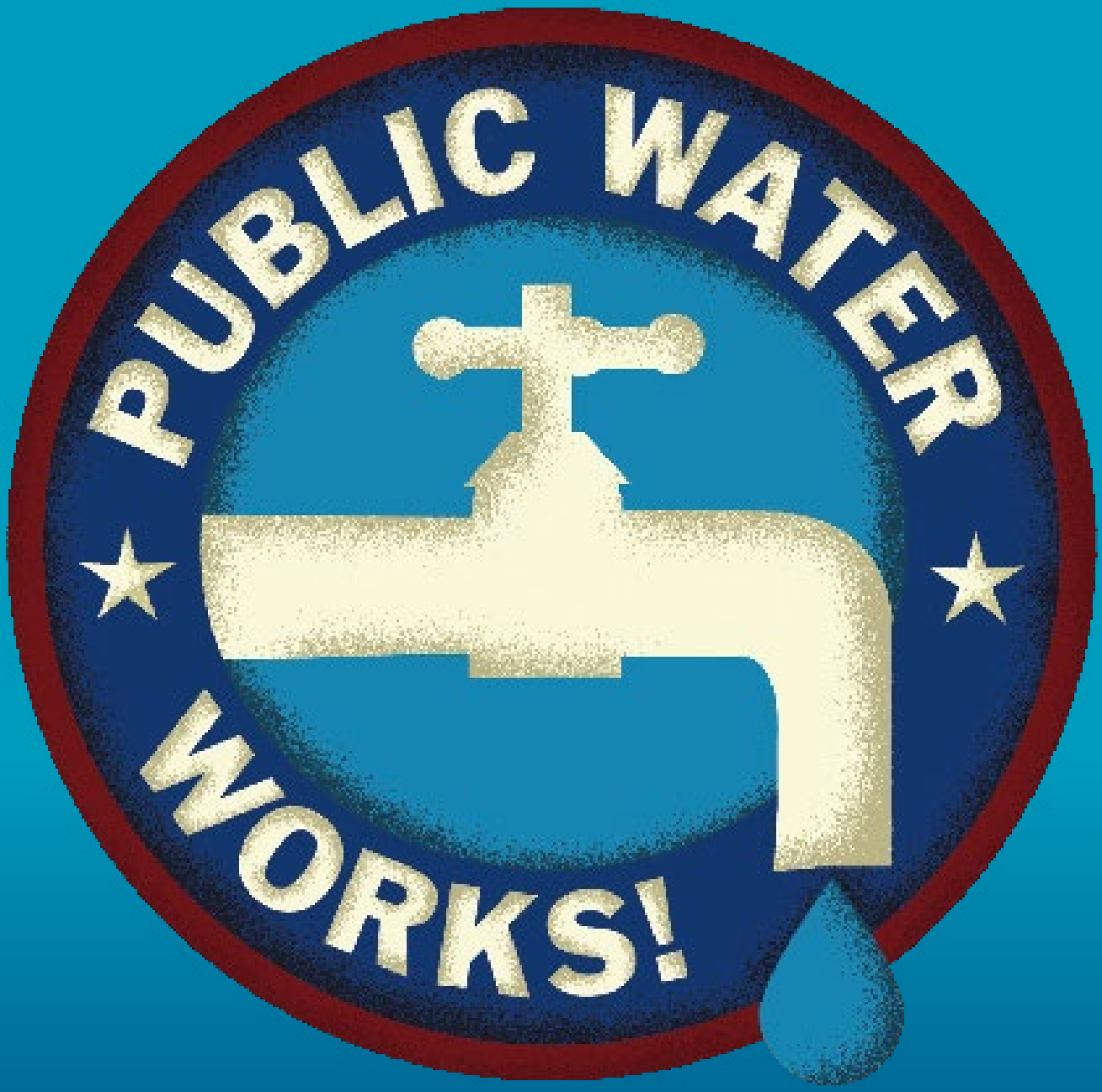

The case for prioritizing our most essential public service

Public Water Works!

The case for prioritizing our most essential public service

Corporate Accountability International, a membership organization, has worked to protect human rights, public health and the environment for 35 years by waging and winning campaigns challenging corporate abuse.

CORPORATE ACCOUNTABILITY INTERNATIONAL
CHALLENGING ABUSE, PROTECTING PEOPLE

Public Water Works! is a national public education and action campaign uniting a wide range of individuals, organizations, and decision makers in calling for something we can all agree on: reinvestment in our most essential public service.

PUBLIC WATER WORKS!

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Executive Summary

Our nation's water systems are on the verge of collapse; if nothing is done, the U.S. will face dire economic and public health consequences. *Public Water Works!* exposes the great need to reinvest in the country's public water systems, and reveals the high value people in the U.S. place on safe, public water. This public sentiment is not reflected in the nation's current investment priorities: water systems receive neither the attention nor the resources that are both necessary and valued by the public. The time has come for this to change.

The evidence presented in *Public Water Works!* point to a clear choice: either infuse public funds into the nation's failing water systems now so that they can once again be strong drivers of the economy, or "kick the can down the road" – put off the inevitable and shoulder future generations with an even larger financial burden. This report establishes an economic case that investing now is not only critical to protect public health, but also to keep the country's economy headed upwards during its fragile recovery.

From almost the beginning of the nation's history, public water systems in the U.S. have consistently brought two interrelated benefits: improved health and prosperity. For example, the rate of return on investment in clean water technologies in the early 1900s was about 23 to 1 over the following hundred years. Such investments resulted in longer lifespans, more productivity and drastically reduced illness and death; for example, three quarters of the decline in infant mortality and two thirds of the decline in child mortality during the beginning of the twentieth century can be attributed to the public's access to cleaner water. Another wave of water infrastructure investment in the 1950s and the implementation of strong federal regulatory oversight of water systems ensured that, today, more than 99 percent of U.S. households have complete access to water. (See "History")

But in the 1980s, with the establishment of "State Revolving Funds," the federal government transitioned from grant provider to lender. The pace and scope of capital needs and the loan-based structure of these funds made them inadequate for the task of replacing these grants. As a result, the federal government's share of funding for water systems fell from 75 percent in the 1970s to 10 percent in the 1990s - a

"Well-constructed governmental expansions of our water and sewer systems can help keep good companies busy and good workers busy.... If we are going to attempt to stimulate the economy, it's better to do it in ways that create real jobs in the United States, producing something that provides a long-term-infrastructure benefit to America."

-Senator Jeff Sessions (R-AL) [1]

"Americans depend upon turning on their faucets and getting clean water...We are concerned whether the status of our water infrastructure in this country will guarantee in the future that will be the case...The good news is that...investment in water infrastructure will return big dividends to the economy as far as job growth is concerned."

- Senator Ben Cardin (D-MD)[2]

percentage that continues to fall. This leaves states and municipalities scrambling to cover a gap that will be exacerbated by over $600 billion in needed funds over the next twenty years.
And the situation will only worsen if nothing is done: because of the lifespan of the nation's water infrastructure almost every network of pipes in the country will require replacement in the next thirty years. (See "Expanding needs")

Underfunded and crumbling infrastructure has very real health and economic impacts. Unreliable water infrastructure causes more than 22 million people a year to get sick from waterborne illnesses, the wasting of billions of gallons of water, and billions in added costs for individuals and businesses. (See "Getting sick")

The good news is public reinvestment in the nation's water systems not only addresses the problems mentioned above, but also spurs economic growth. Infrastructure investment, in general, and water infrastructure investment, in particular, creates many more jobs than tax cuts and grows the GDP. (See "Investing in public water to create jobs and spur the economy")

The longer-term promise can be hard to see, however, beyond the shadow of immediate budget realities. But, as *Public Water Works!* documents, short-term fixes such as municipal bulk bottled water contracts and the privatization of public water systems, as well as their assets, instead of facilitating sustained economic growth, kick today's tap water challenges down the road. Municipalities like Atlanta have suffered the negative effects of water system privatization: higher rates for poorer service, cost-cutting measures that put the public's health and the environment at risk and job layoffs of public workers. One survey found privatization of public water systems leads to an average job loss of 34 percent. (See "Privatization")

As this report finds, the public is skeptical about the ability of the private sector to control and own water systems. A poll conducted for this report finds that most people in the U.S. trust local governments over private corporations to provide public water services and broadly support keeping control of water in the hands of local government. The "Findings" section of *Public Water Works!* provides additional insights from this national poll, further affirming that the value the federal government puts on water investment is out of touch with the value people in the U.S. — across party lines — put on its doing so.

What is needed now is the political will to reinvest in public water systems. As this report went to print, decision makers from cities across the country to the federal government signed on to a call for such a reinvestment. And, many have already begun that

KEY FINDINGS

According to a 2012 Corporate Accountability International poll conducted by Lake Research Partners:

- **73%** of people in the U.S. believe ***GOVERNMENT INVESTMENT*** in safe, public water systems is either extremely or ***very important.***

- **71%** of people in the U.S. ***TRUST LOCAL GOVERNMENTS to provide water*** over private corporations.

- Of that 71%, ***almost half*** (44%) feel "strongly" that they ***TRUST LOCAL GOVERNMENTS*** over a corporation to provide their water.

- ***Support*** for a reinvestment in public water infrastructure and public control of these systems ***CROSSES PARTY LINES*** with majority support from Republicans, Independents and Democrats alike.

› LEFT: Philadelphia Water Works, Philadelphia was the first major city to institute a public water system in the U.S.
› RIGHT: Minneapolis Mayor R.T. Rybak pictured here after he committed his city to go bottled-water free in 2007. Since then he has proposed substantial investments in water infrastructure improvements.

reinvestment process. Mayors such as R. T. Rybak of Minneapolis have proposed substantial investments in their cities' infrastructure. To date, signers include 30 mayors such as Ralph Becker of Salt Lake City and Stephanie Rawlings-Blake of Baltimore, public water system directors such as George Hawkins, General Manager of DC Water and Sewage Authority and members of Congress such as Rep. Earl Blumenauer from Oregon. Leaders across civil society such as Public Services International have also linked the importance of strong public water systems to the continued success and prosperity of the nation.

To this end, *Public Water Works!* calls on the nation's leaders in the "Recommendations" section to:

- **Assert water as a national priority** reflective of the value the U.S. public puts on it, elevating water reinvestment to the same level in the public discourse as other essential public services.
- **Create new and improved funding mechanisms for public water systems**, supporting measures like a Water Infrastructure Trust Fund or Infrastructure Bank that provide permanent annual funding for municipal water systems.
- **Make strong political commitments to public water** by taking a stand for public control of water systems.

Our nation is at a critical juncture as the water systems foundational to public health, economic prosperity and all other public services face what has been dubbed the "Replacement Era." Already requiring hundreds of billions of dollars to maintain and keep up with growth, the nation's networks of pipes are due for replacement. Since the first system's groundbreaking in Philadelphia, public water has worked, but drastic action is required to make sure it continues to do so.

KEY FIGURES

- In FY 2010, the federal government's contribution to drinking water systems was less than 1/10 of the annual investment gap facing water systems over the next 20 years.
- Wastewater systems across the country will need $298.1 billion in infrastructure funding over the next twenty years, and drinking water systems will require an additional $334.8 billion in funding over the same time period.
- Every day, leaky pipes account for the loss of seven billion gallons of clean drinking water, or 16 percent of total use: enough to supply drinking water to the ten largest cities in the U.S. for a day, or almost double the daily water needs of every person living in sub-Saharan Africa.
- U.S. business will lose $734 billion between now and 2020 because of costs and sales lost due to unreliable water infrastructure.
- Infrastructure investments create more than 16 percent more jobs than equal spending on a payroll tax holiday, almost 40 percent more jobs than an across-the-board tax cut, and more than five times as many jobs as temporary business tax cuts.

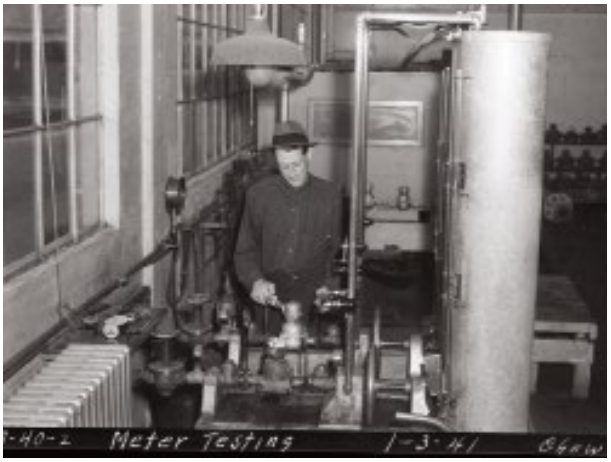
History of Public Water

The statesman Benjamin Franklin asserted, "When the well's dry, we know the worth of water." The residents of Philadelphia in the late 1700s might have added, "when the well's fouled, we know the worth of water."[3] When a series of yellow fever plagues swept the city and killed thousands, residents, who thought at the time that the illness was water-borne, blamed waste by privies and cesspools located near the wells from which the city drew its water. The public clamored for safer drinking water, and the city rose to the challenge. In 1801 the "Cradle of Liberty" unveiled the country's first public water system, now almost as old as the nation itself.[4]

Public water systems have been fundamental to the economic and social advancements of the United States. Following Philadelphia's lead, other cities began implementing public water systems to improve sanitation, provide residents access to healthy drinking water and prevent devastating fires. For example, New York City bolstered its water system by building the Croton Aqueduct in 1842 after both a deadly cholera epidemic and a large fire caused extensive damage to the city.[5] Around the country, communities benefited from investment in public water systems and the resulting proliferation of technologies like sand filtration and chlorination. For the past two centuries, these systems have proved essential to providing the daily water necessary for everyday life and are key to maintaining the country's health, safety, and prosperity.

ADVANCES IN TREATMENT TECHNOLOGY IMPROVE HEALTH AND GROW THE ECONOMY

As scientists began to develop an understanding of how disease was spread, the first basic treatment technology was developed: sand filtration. Although a primitive process compared to our modern techniques, it reflected the basic understanding of the pathogens that caused waterborne illnesses, and it had a significant effect on the safety of drinking water.[6] Still, water pollution continued to be a major public health issue. At the beginning of the 1900s, waterborne illness accounted for 44 percent of deaths in cities.[7]



> LEFT: Old Croton Aqueduct, finished in 1842 this public works project greatly augmented New York City's public water system.
> RIGHT: An employee of Seattle's Water Department in 1941 testing water meters. Now, Seattle Public Utilities, it's been publicly owned and operated since 1891.

It was the discovery of the benefits of disinfectants such as chlorine to purify water that led to a breakthrough in the ability of cities to deliver safer drinking water and drastically improve the health of their residents. Chlorine was first put to use in Jersey City, N.J. in 1908 and quickly spread to water systems around the country, with dramatic effects.[8] By one estimate, water filtration and treatment improvements were responsible for nearly half of the overall reduction in mortality in the early twentieth century, including three quarters of the decline in infant mortality and two thirds of the decline in child mortality.[9]

These benefits were not simply public health successes; they also contributed to economic growth and development. Conservative estimates put the rate of return on investment in clean water technologies in the early 1900s at about 23 to 1 over the next hundred years. In other words, technological advances resulted in a healthier, more productive work force.[10]

POLITICAL SUPPORT BRINGS SAFE WATER TO THE NATION

In the second half of the twentieth century, economic investment in water infrastructure was coupled with important legislation that represented the growing value the public placed on clean water. President Lyndon Johnson reflected the sentiment of the nation when he said: "The banks of a river may belong to one man or one industry or one state, but the waters which flow between the banks should belong to all the people."[11]

While the nation's urban areas in the early twentieth century saw the growth of technologies and the expansion of water systems, many people outside of cities did not have access to clean water. In 1950, more than one quarter of U.S. households lacked complete plumbing facilities, including half of all rural residents.[12] But following World War II, infrastructure investment, including for public water, became a priority and a driver of economic development. From 1950 to 1979 public investment in services such as transportation, water management, and electricity transmission grew at an average annual rate of four percent.[13] In particular, this period witnessed a dedicated effort to extend the safety and conveniences of modern clean water to rural areas. Federal and state support was especially crucial because small communities often lack the resources to install and maintain water systems on their own. Accompanying this overall infrastructure investment, economic growth (GDP) averaged 4.1 percent per year during this time.[14]

This public spirit for water protection and public investment in water systems blossomed in the 1970s. In 1972, sweeping amendments to the Federal Water Pollution Control Act (later known as the Clean Water Act) created the basis for pollution controls over rivers, streams and other water sources for public water systems.[15] Then, in 1974 the Safe Drinking Water Act gave the EPA similar control over national standards for the drinking water that flowed from the taps.[16]

In 1977, ensuring safe public water was so important to voters that the Clean Water Act was amended to give the EPA more authority to set pollution treatment standards and fund projects to help protect water supplies.[17] Following this wave of public and political support for water systems in the seventies, President Reagan signed the 1986 amendments to the Safe Drinking Water Act, raising standards for drinking water and requiring even more stringent treatment.[18]

Today, thanks to the nation's historical support of public water systems, more than 99 percent of U.S. households have complete access to water.[19] And our public water systems remain as vital as ever. As Shirley Franklin, the former mayor of Atlanta (2002-2010), put it, "Without wastewater infrastructure, and without drinking water infrastructure, the economy will stop."[20]

Public water changed the lives of Philadelphians in 1801, and today, the nation's water systems ensure near universal access in the U.S. But water, like the freedoms upon which the nation was built, requires an ongoing commitment – one that has languished. Faced with a sour economy and budget cuts, public officials have reduced investment in public water systems – a short-term expedient with dire long-term consequences. The consequence of this lack of funding is a rapidly expanding gap between the money that must be invested to maintain public water systems and the money that is actually being spent to do so.

The Expanding Need

After enjoying two centuries of strong public support, U.S. water systems now face a critical time of need. Over the past twenty years the way water is funded in the U.S has fundamentally changed, with the cost largely landing in the laps of local officials and individuals. But neither group can easily afford the costs of maintaining and expanding water infrastructure and technology. The result is a severe lack of necessary resources. At the same time, most of the water infrastructure network in the U.S. is nearing the end of its intended lifespan, while population changes promise to further push the limits of these aging systems. Exacerbating the problem, the bottled-water industry's misleading marketing has weakened public confidence in and the consequent political will to adequately fund the tap. At this critical time, lack of investment in infrastructure is simply transferring an even greater burden on to the shoulders of future generations.

FUNDING SHIFTS FROM GRANTS TO "REVOLVING FUND" LOANS

As indicated in the previous section, investment in public water systems has traditionally been a partnership between federal, state and local governments. Together, they set standards for water quality, identified the most critical actions required to meet these standards and funded the execution of plans to accomplish this end.

The Clean Water Act is a primary example. In 1972, the federal government passed amendments to the Act, setting more stringent water treatment standards and giving the federal government more control over the projects funded by federal grants. Along with these higher standards and increased control, the Act increased the federal government's share of water funding to 75 percent and provided funding for grants to increase by a billion dollars a year for three consecutive years. The federal government acted on the best available science to advance safe water technologies, providing the funding necessary to make the established standards a reality. Until 1985, funding to support the Clean Water Act was the largest non-military public works program since the Interstate Highway System.[21] The rest of the investment came from state and local governments in the form of revenues from ratepayers and state and local funds allocated to water systems. This system worked well because it was a true partnership based on manageable allocations of funds between the federal government, smaller state government budgets and end users who paid the utility based on their water usage.

But in the 1980s this system of partnership between the different levels of government began to break down. The Reagan Administration radically changed the federal government's role in water funding, even as it raised standards in the Safe Drinking Water Act. President Reagan began a phase-out of the Clean Water Act's federal grant program in his second term: the same grant program that had sustained the country's water infrastructure for the prior 40 years. Grant programs for water funding were replaced with "State Revolving Funds." In 1987, an amendment to the Clean Water Act created the Clean Water State Revolving Fund, and amendments to the Safe Drinking Water Act in 1996 created a similar fund for programs specific to drinking water.[22]

The purpose of the State Revolving Funds was to change the federal government's role from a grant-maker to a banker. President Reagan intended the State Revolving Funds to replace the need for federal grants, with the federal government providing only a limited amount of seed money to each fund. The funds were to provide capitalization funds to states, which would match a portion of those funds and make

> LEFT: Owens aqueduct above ground pipe in California desert. Need is expanding faster than our infrastructure can keep up.
> RIGHT: Utility workers repairing a water main in San Francisco. Due to the aging lifespan of the nation's water infrastructure almost every network of pipes in the country will require replacement in the next thirty years.

loans to municipalities for clean water projects. Once these projects were complete, the municipalities were to repay the loans over time, allowing the states to replenish the States Revolving Fund for the next projects.[23]

In actuality, the State Revolving Funds have turned out to be woefully inadequate in both structure and funding level. They were supposed to become self-sufficient almost twenty years ago, replenished by state loan repayments. But the costs associated with ever-changing standards and technologies required to keep water clean, in addition to the money needed to maintain aging infrastructure, are too much for cities and states to bear on their own. States have needed more money to adequately fund water infrastructure, and the federal government has been forced to continue reauthorizing money to the funds, with no end in sight.[24]

The move from the grant programs to the State Revolving Funds has had dramatic effects. In 1972 the federal government was funding 75 percent of water system needs; by 1997 the federal government's share was reduced to 10 percent.[25] State and local governments have been left scrambling to maintain and improve their water systems. The Congressional Budget Office recently reported that from 2003 to 2007 annual state and local investment in drinking water and wastewater utilities rose by three percent while federal expenditures declined by 13 percent.[26] Municipalities' capital funding needs have risen due to increased costs, but the federal contribution to the State Revolving Funds has stagnated over the past twenty years.

All of this has led to a staggering build-up of investment needs and an even more alarming gap between the amount of funding needed to keep our public water systems safe and the meager funding actually provided to these systems. In the EPA's most recent needs surveys, the agency reported that wastewater systems across the country will need $298.1 billion in infrastructure funding over the next twenty years, and drinking water systems will require an additional $334.8 billion in funding over the same time period.[27,28]

To put this in perspective, the FY 2010 federal appropriation to the Drinking Water State Revolving Fund was one of the highest annual funding levels in the sixteen year history of the fund. Yet the amount was less than $1.4 billion,[29] or, only 0.4 percent of the funds required by drinking water systems nationally over the next twenty years. The last time the EPA calculated the gap between real funding and actual needs was in 2002 when the agency found that water systems were receiving up to $23 billion a year less than what they needed for infrastructure investment.[30] Given the expansion in needs and the lack of funding that have occurred since that report, this figure is likely a conservative estimate of the dire funding gap that our nation's water systems face.

RISING RATES NO MATCH FOR RISING COSTS

The funding challenges public water systems now face are not due to a lack of commitment from end users. Ratepayers have paid their fair share of the increasing costs of water distribution — the typical bill for a residential water user increased by an average of 5.3 percent every year from 2001 to 2009, more than double the rate of inflation.[31] This increase is no surprise; it occurred as municipalities were forced to find ways to replace federal funds that had once been an essential source of water-systems support.

Local governments simply do not have the funds to replace the role of the federal government. According to a study survey of over a thousand drinking water systems and over 2,000 wastewater systems in 2002 by the Government Accountability Office, only 21 percent of drinking water utilities and 23 percent of wastewater utilities indicated any local sources of funding besides user charge.[32]

With ever increasing need, this trend has worsened. Water and wastewater rates rose at an even higher average of 8.1 percent between July 2010 and July 2011.[33] These rates are still not enough to save public water systems. Even when rates are high enough to cover day-to-day operational costs, almost one-third of utilities must defer infrastructure maintenance because of insufficient funding.[34]

SYSTEMS CHALLENGED BY AGING INFRASTRUCTURE AND INCREASED DEMAND

In fact, the federal government could not have left states and municipalities to fend for themselves in a worse time when it comes to maintenance needs. The American Water Works Association has called the first thirty years of this century the "Replacement Era" because of the lifespan of the materials used to create the country's water infrastructure, systems across the country are facing the highest need for replacement since their original construction. At the same time, population density changes in the U.S. are straining the current system.

Changes to water pipe manufacturing produced thinner and lighter pipes that were more resistant to corrosion but with shorter lifespans. The first set of water pipes laid in the late 1800s was made from cast iron with a life expectancy of approximately 120 years, putting them in current need of replacement or in danger of imminent failure. The next great wave of infrastructure construction came in the 1920s when changes to manufacturing and installation methods gave these pipes 100-year lifespans, forecasting a need for replacement within the next decade. The post-World War II boom, the last great period of infrastructure investment, installed pipes that were expected to last approximately 75 years. These last set of pipes will also need to be replaced in the next decade. The bottom line: almost every pipe system in the country will require replacement in the next several decades — an unprecedented challenge for all levels of government.[35] (See table - page 12)

The other challenge for the nation's water infrastructure is the growing and changing population of the U.S. Nationally, efforts to conserve household water and implement green technologies have done much to keep water withdrawals stable for the past twenty years. However, increases in population threaten to put a heavier burden on already strained water systems.[36]

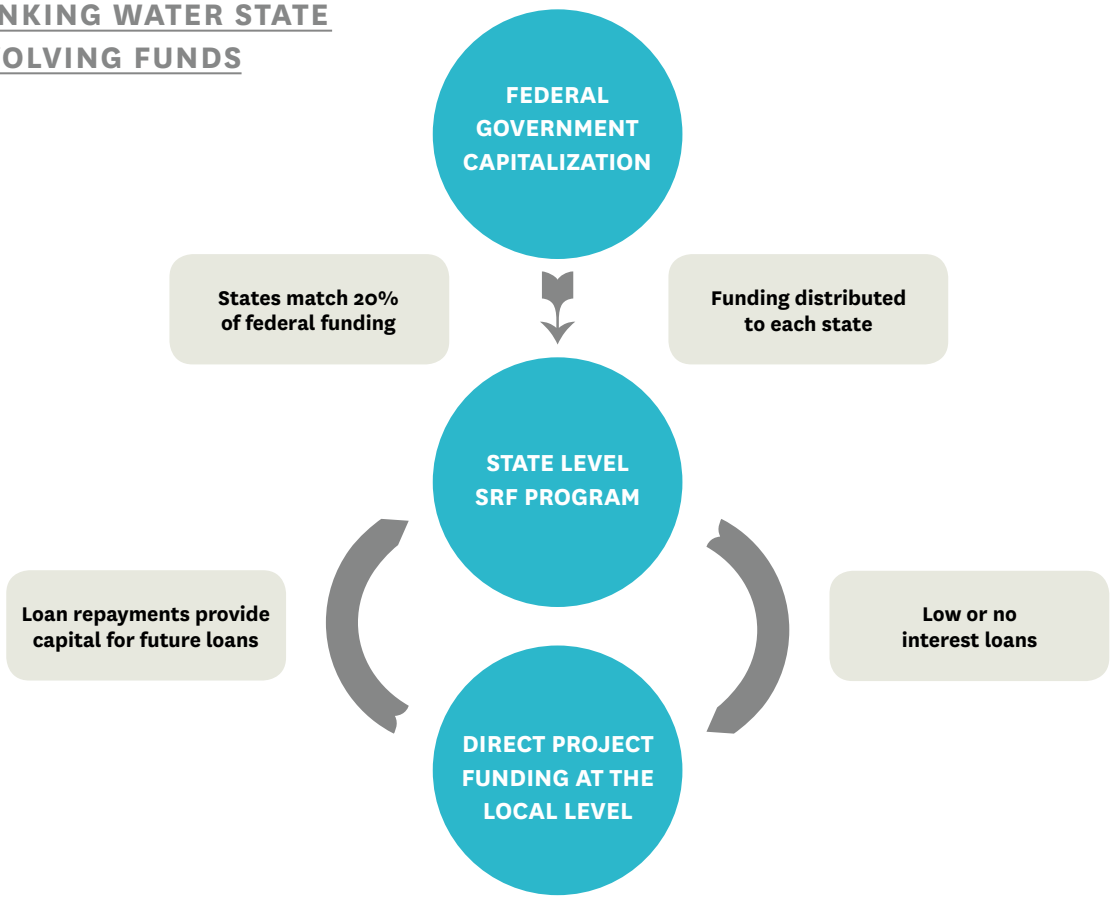
The shifting population of the U.S. presents particular difficulties. Future population growth is predicted to be concentrated on the West Coast, the Southeast, and Southwest of the U.S. These areas are all particularly water stressed, and the systems in these regions are some of the least developed, creating more need than anywhere else in the country. Meanwhile, many northern cities will experience stagnant or lower populations, forcing fewer people to shoulder the rising costs of maintaining large – and aging – public water systems.[37]

BOTTLED-WATER INDUSTRY PLAYS KEY ROLE IN DIMINISHED SUPPORT FOR THE TAP

The current crisis has been compounded by actions of corporations seeking to profit from the sale of water. In the 1970s, with the passage of the Clean Water Act and strong federal grant programs, widespread consumption of bottled water was unimaginable. But as the federal government scaled down its funding of public water, the bottled-water industry saw an opening to expand its markets. For the last several decades the industry has attempted to convince communities and individuals that the only way to get clean, safe water is from a bottle. In reality, almost half of bottled water is sourced from public water[38] and bottled water is not regulated as vigorously as the tap.[39] Yet the industry's misleading marketing sold the idea that bottled water was somehow more pure and safer than tap water leading three in four people in the U.S. to drink bottled water by the early 2000s.[40]

Local, state and federal government agencies even began spending money on bottled water, sending the wrong signal about government's commitment to the nation's treasured public water systems.[41] This spending did nothing to remedy challenges faced by neglected public water systems. As the bottled-water industry's revenue quadrupled, the tap faced spending cuts and lost the political support it once enjoyed. In 2010, even as the bottled-water industry confronted stagnating sales, it still generated revenues eight times higher than the federal contribution to the Drinking Water State Revolving Fund.[42]

CLEAN WATER AND DRINKING WATER STATE REVOLVING FUNDS

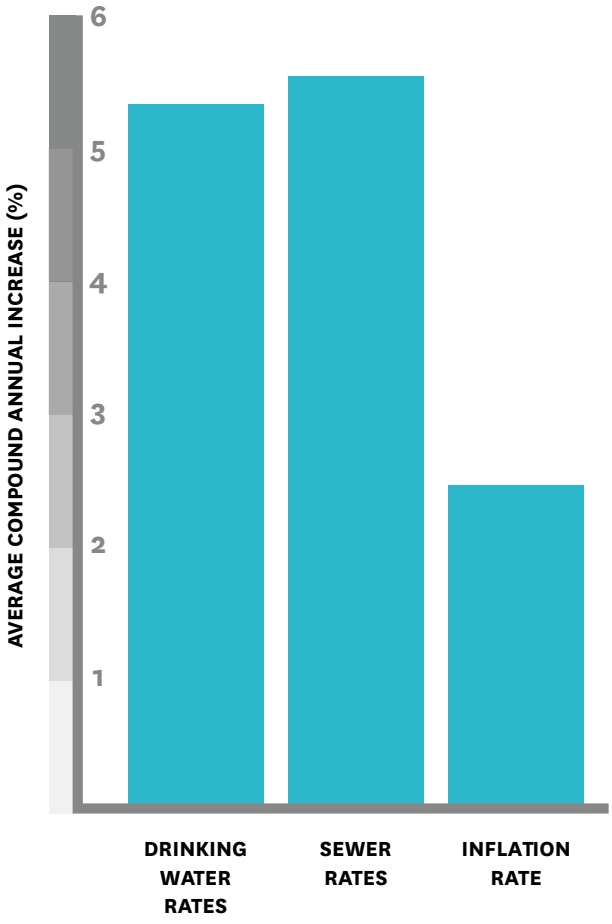


United States Environmental Protection Agency, "CWSRF Program Diagram," http://water.epa.gov/grants_funding/cwsrf/cwsrf_diagram.cfm (accessed February 21, 2012).

However, the public climate is shifting significantly as people discover the truth behind the industry's marketing. A 2010 Harris Poll reported that 40 percent of people in the U.S. had switched from bottled water back to the tap,[43] and in the past four years there has been a dramatic reversal of the growth of the industry.[44]

As more and more consumers understand the harmful environmental impacts of bottled water and refuse to buy into misleading marketing of bottled-water safety, there is a vital opportunity to turn public attention back to the tap. This opportunity must be harnessed, given the urgent needs of our water infrastructure. The radical change in water funding described above has left our public water systems to deteriorate so far that the American Society of Civil Engineers gave them a grade of D-.[45]

WATER RATES ON THE RISE 2001-2009



Black & Veatch, "50 Largest Cities Water/Wastewater Rate Survey," 2009/2010, http://www.bv.com/Downloads/Resources/Brochures/rsrc_EMS_Top50RateSurvey.pdf (accessed February 15, 2012).

Health and Economic Impacts

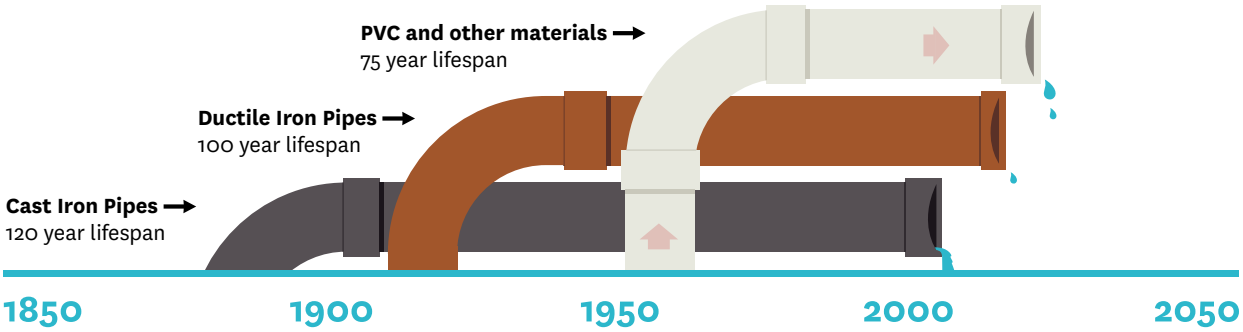
Clean water flowing from the tap keeps people healthy and the economy moving. When the pipes begin to crumble and infrastructure fails to keep up with new challenges, public health and national prosperity suffer serious consequences. Historically, strong legislation and scientific advancement have dramatically improved and protected the quality of U.S. water. But failure to maintain and expand our infrastructure puts people at risk of contracting waterborne illness. Furthermore, healthcare costs of such illnesses take a toll on people's wallets and the economy at large. In addition, poor infrastructure leads to wasted water and higher costs for businesses and residential households. The costs associated with a lack of investment will end up greatly outpacing the funding needs of public water systems unless the country takes urgent action.

WATER CONTAMINATION RISKS PUBLIC HEALTH

People served by underfunded water systems are put at risk of catching waterborne diseases. In 2007 and 2008, there were 21 reported outbreaks of waterborne diseases in the U.S. caused by contaminated sources of drinking water and deficiencies in treatment and distribution.[46] Many more such cases go unreported or unrecognized; by some estimates more than 19 million people get sick from illnesses attributed to drinking water contamination every year.[47] Although symptoms include debilitating diarrhea and vomiting that can last for weeks, these serious illnesses often are not reported as waterborne illnesses.[48]

Drinking water contamination is not the only threat to public health: wastewater can pollute swimming and recreational waters. Lack of funding and poor design means there are more than 700 systems around the country today that combine storm water and wastewater drainage.[49] When heavy rain, extreme snowmelt, or other flooding situations overwhelm the capacity of wastewater treatment plants, the excess mix of storm water and wastewater flows into watersheds. Every year, about 900 billion gallons of raw sewage flows into waterways because of these combined sewer overflows.[50] The result: up to 3.5 million people in the U.S. contract an illness from swimming in waters contaminated by parasites, viruses and bacteria from these overflows.[51]

TIMELINE OF "REPLACEMENT ERA"



American Water Works Association, "Dawn of the Replacement Era: Reinvesting in Drinking Water Infrastructure," May 2001, http://www.win-water.org/reports/infrastructure.pdf (accessed February 21, 2012).

THE ECONOMIC TOLL ADDS UP

In addition to harming public health, waterborne illnesses also exact an economic toll. Treatment of the three most common waterborne illnesses in the U.S. — cryptosporidiosis, Legionnaires, and giardiasis — costs an estimated $500 million-plus per year.[52] That's money that could be well spent on preventing such illnesses in the first place.

The costs associated with a case of drinking-water contamination in Milwaukee, Wis. are a vivid illustration: in 1993 the city's water system was contaminated with the parasite cryptosporidiosis, causing over 403,000 people to fall ill. On average, the cost of hospitalization ranged from $3,000 to $17,000 per person, with those who suffered from existing illnesses and weakened immune systems undergoing longer hospital stays and shouldering additional costs. In the end, healthcare costs and productivity losses from the outbreak added up to $96.2 million. In addition, the city racked up a $2 million-plus bill in legal fees and other costs associated with safeguarding the public during the contamination period, and individual households paid the cost of preventative measures (buying bottled water, for example).[53] In the end, the total dollar amount of healthcare costs and productivity losses from this single outbreak added up to almost one and a half times the operating budget of the Milwaukee Water Works for one year.[54]

Too often, the economic toll of waterborne illness falls on those who are least able to pay the price of both securing clean alternatives to contaminated water and treating waterborne illness. With healthcare costs that can add up to more than $30,000 per person, these illnesses have a particularly acute effect on low-income communities and those without healthcare insurance.[55] Low-income communities and communities of color can be at greater risk for drinking water contamination and therefore disproportionately shoulder the cost of buying alternatives to tap water. Similarly, the burden of wastewater pollution falls most heavily on low-income communities that do not have the funding to support the costs of maintaining expensive treatment systems and instead are forced to dump raw sewage directly into waterways.[56]

BILLIONS OF GALLONS OF WATER WASTED

When there is little funding to maintain infrastructure, water delivery inefficiency can become a serious problem. Every year there are 240,000 water-main breaks in the U.S., and these leaks add up.[57] Every single day, seven billion gallons of clean drinking water, or 16 percent of total use, are lost through leaky pipes in need of repair.[58, 59] That's enough to supply drinking water to the ten largest cities in the U.S. for a day,[60] or almost double the daily water needs of every person living in sub-Saharan Africa.[61] In an increasingly water-scarce planet, this waste also comes with environmental costs.

Ratepayers are shouldering the cost. U.S. households pay an extra $6 billion, and businesses shell out $15 billion in costs connected to deficiencies in water systems. Examples of such costs include higher water rates and taxes, purchase of water when public systems cannot meet demand and forced relocation in search of adequate water supply and delivery. And in less than ten years, these costs will rise to $28 billion for households and $74 billion for businesses. That's more than the current annual need of the entire system.[62] In other words, investing now to improve our public water systems means significant savings in the long run. If we do not invest, individuals and businesses — large and small — will be forced to pay more to fix problems that could have been averted.

Failing water systems in areas prone to water shortages put the people they serve at even greater risk of losing clean water. For example, the town of Kemp, Texas has had three "boil-water notices" in the past two years. Two were in August 2011, when a heat wave caused demand to spike. The crumbling system was unable to handle the extra demand, and the city's pipes, more than three decades old, burst under the strain. The main break drained the already diminished water supply — leaving residents without water service in sweltering heat for 48 hours while water supplies recharged. Families had to rely on containers of water filled elsewhere to flush their toilets. It was the second time in two years the town had to shut down its water system, and the city has yet to find funding to adequately prevent similar problems in the future.

Small towns like Kemp lack the tax base to fund expensive infrastructure improvements or repay loans to the state or federal government. Kemp's water department works with an annual budget of only $688,000 — barely enough to cover operations costs, and it applies for scarce funding every two years. So far, those applications have yielded funding to replace less than two miles of the town's 30-mile long infrastructure network — a fraction of the projects that officials have deemed vital to saving the water system.[63]

THE BIG PICTURE: AGING INFRASTRUCTURE THREATENS THE NATION'S ECONOMIC RECOVERY

Kemp, Texas is but one of many places around the country struggling with their aging water infrastructure. Their struggles are a threat to economic recovery. Business will lose $734 billion between now and 2020 because of costs and sales lost due to unreliable water infrastructure. This expense will drive a $416 billion reduction in GDP for the nation: an amount that dwarfs the $335 billion required to fund the needs of drinking water systems nationwide.[64, 65]

The business costs will manifest in job losses in all parts of the economy. By 2020, almost 500,000 jobs will be threatened and even lost because of the costs associated with poor water infrastructure in sectors such as agriculture, food service, entertainment, construction, and manufacturing — industries that have been traditional employers of entry-level workers and people without advanced degrees. Additionally, high-end sectors of the economy such as knowledge sector services, medical services, and technology will be at risk to lose 184,000 jobs.[66]

As the country slowly recovers from the recent financial crisis, we must protect and encourage rising job growth numbers. Unreliable water systems put our economic recovery at risk — but reinvesting in public water systems promises to drive economic growth and job production.

INVESTING IN PUBLIC WATER TO CREATE JOBS AND SPUR THE ECONOMY

As has been detailed in previous sections, without water-infrastructure investment, public health will suffer, healthcare and business costs will rise, and the economy will suffer. Conversely, investment in the nation's water infrastructure will not only improve public health and quality of life, but also create jobs and grow the economy. Infrastructure investment has proven effective in staving off the worst effects of the current economic crisis and will be key to our continued recovery. In particular, investments in water create more quality jobs than any tax cut or infrastructure investment in any other sector.

PUBLIC WATER: A JOB CREATOR

A recent report by the green jobs advocacy group Green for All estimated a strengthened investment in wastewater systems of $188 billion over the next five years, a number based on projections of short-term wastewater system needs, would create close to 1.9 million jobs. These jobs would span at least fifteen occupation types, including engineers, pipe fitters, masons, and construction managers, many requiring only a high-school degree.[67] This broad array of opportunity and accessibility is key to ensuring that everyone in this country benefits from economic recovery. While this jobs figure is based on one sample investment in wastewater systems, it exemplifies the kind of job creation possible from a strong and sustained investment in both our drinking water and wastewater systems. In fact, the Associated General Contractors of America testified to Congress that every $1 billion invested in drinking water and wastewater systems could add close to 28,500 jobs to the economy.[68]

Not only will investments in public water systems create more jobs, it will spur vital economic growth. Green for All estimated that their sample investment of $188 billion would generate over $265 billion in economic activity, or growth in Gross Domestic Product (GDP).[69] The U.S. Conference of Mayors,

> A commitment to building and maintaining public water infrastructure is a commitment to job creation in the U.S. From engineers to construction workers, water infrastructure investment creates nearly 40 percent more jobs than across-the-board tax-cuts.

a non-partisan body representing nearly 1,300 cities across the country, reported every dollar invested in public water systems increases GDP by $6.35 in the long term.[70] To complement the economic stimulus from this investment, safety enhancements to water systems could prevent much of the costs associated with illness and lost productivity that were profiled in the previous section.

INFRASTRUCTURE INVESTMENT PAYS DIVIDENDS

During the financial crisis of 2009, the U.S. government's spending on infrastructure helped prevent an economic downturn that could have rivaled the Great Depression, and has driven the nation's economy during a delicate recovery effort. The American Recovery and Reinvestment Act of 2009 has so far distributed $840 billion stimulus funds, including over $59 billion in transportation and infrastructure funding.[71] According to a report by leading economists, the stimulus raised inflation-adjusted GDP in 2010 by about 3.4 percent, held the unemployment rate about one and half percentage points lower than it would have been otherwise and added almost 2.7 million jobs to U.S. payrolls. According to a report by leading economists, without this spending, real GDP would have fallen by a total of almost 12 percent from the start of the crisis, compared to an actual decline of about four percent. And, twice as many jobs would have been lost. The federal debt has garnered much attention recently, but without a strong stimulus package, the federal budget deficit would have been over $2 trillion in fiscal year 2010 and would have reached $2.25 trillion in FY 2012: twice as high as the latest Congressional Budget Office projections.[72]

WATER INVESTMENT LEADS THE WAY IN GROWING THE ECONOMY

Infrastructure investment creates jobs and stimulates the economy more effectively than any tax cut according to Mark Zandi, Chief Economist of Moody's Analytics. While some contend that tax cuts free up money that can be used for increased hiring, this is an ineffective job creation policy compared to other measures. Infrastructure investments create over 16 percent more jobs than equal spending on a payroll tax holiday, almost 40 percent more jobs than an across-the-board tax cut, and more than five times as many jobs as temporary business tax cuts.[73] Infrastructure investment also creates more economic growth than other stimulus options. For example, a dollar spent on a corporate tax cut will only grow the economy by 32 cents in one year, but a dollar spent on infrastructure results in a $1.44 in economic growth. And, when there's infrastructure investment

at the federal level, states and municipalities do not need to pass steep tax hikes to fund necessary projects, which in turn allows consumer spending to recover more rapidly.[74]

While investment in all kinds of infrastructure is the most effective way to stimulate the economy, water infrastructure investment, in particular, creates more jobs than any other sector. On average, an investment in the water sector creates more jobs than an equal investment in transportation, energy or school buildings because of the very nature of the work that goes into public water systems.[75] In addition to the heavy construction and installation that is required to repair, replace, and lay new water infrastructure, water systems also employ people to design, manufacture, install and monitor these new systems.

And the jobs created by public water systems are good ones. Jobs in the water sector have a high rate of unionization, as high as 38 percent, well above the national average of just over 10 percent. As a result, most of these jobs meet or exceed a living wage standard and offer career advancement options even for "middle-skilled" workers without college degrees.[76]

In particular, these jobs will train a generation of green technology specialists who will be essential to the future of our economy. Environmentally friendly technology is becoming recognized as an essential part of water system management because it lasts longer, works better than traditional "gray" technology and saves money. As more jobs require these "green" skills in the future, investment in public water systems will be an effective way to increase capacity in this vital sector.[77]

As the economy slowly improves, infrastructure spending will be key to ensuring continued recovery. Investments in public water infrastructure will be public money well spent.

Water infrastructure investment, in particular, creates more jobs than any other sector. On average, an investment in the water sector creates more jobs than an equal investment in transportation, energy or school buildings because of the very nature of the work that goes into public water systems.

The Problems with Privatization

Some public officials who face budgetary uncertainty, yet who understand the need and benefits of water infrastructure investment, have turned to the false promise of privatization. Many privatization contracts even contain large upfront payments, understandably attractive to cities facing looming budget deficits. Often these deals seem too good to be true — because they are. Just as not investing adequately only exacerbates problems down the road, so too does privatization and the many forms it takes ("public-private partnerships" being the most popular characterization of the privatization of public services).

Some of the world's most powerful corporations are in the business of buying and operating water systems for profit. These corporations are attempting to use the challenges facing public water systems as an opportunity to promote private sector involvement in providing water services. But the promise of enriching shareholders while simultaneously serving the public has proven false time and again. Privatized water systems have routinely failed to invest in infrastructure and offered promises that they cannot deliver, all the while doing nothing to address the lack of funding for public water systems. And, privatization has often led to rate hikes, job cuts and public safety risks. Where cost efficiencies are put into place, the savings become dividends for investors rather than funds for reinvestment into the systems. To overcome public resistance of privatization projects, corporations have developed a number of tactics to capture the market — from outright bribery to legal challenges to PR campaigns.

FALSE PROMISES

Perhaps the most attractive, and misleading promise that corporations proffer is that they can finance expensive infrastructure costs more easily than governments. However, this selling point is at odds with the very nature of water delivery. Water delivery and treatment is a natural monopoly. Water systems require massive amounts of buried infrastructure, so it does not make sense to have two sets of pipes operated by multiple corporations. Without this competition there is little incentive for private corporations to invest in infrastructure that extends access and improves quality.

But corporations often promise they can finance expensive infrastructure costs more easily than governments. In truth, the length of privatization contracts, while long, is often not long enough for corporations to reap gains from infrastructure investment. Therefore, without public accountability, corporations have little reason to invest in unprofitable infrastructure, regardless of the effect on the public.[78] Instead, the local government is often left to foot the bill for infrastructure improvements while the corporation collects the profits from the more lucrative business of operation and management. The CEO of Veolia Environment, the world's largest water privatizer, admitted this very premise of his business model when he said, "Many of the best performing contracts are those where a private operator assumes the operational and commercial risks, but not the major capital expenditures."[79] What he did not say is — despite promises to the contrary — corporations rely on governments to absorb these "capital expenditures," (e.g. infrastructure costs).

What took place in West Virginia is a clear example of communities sorely in need of infrastructure improvement being left out to dry by the hollow promises of infrastructure investment. West Virginia American Water, a division of American Water Works Company — the largest privatizer in the country, promised millions of dollars in support to several communities. Its CEO extolled the benefits of privatization for cash-strapped cities: "Now is the time to enable the private sector to provide resources to help financially distressed municipal

> When water systems are privatized, corporations focus on maximizing profits, often leading to a lack of infrastructure maintenance. In some cases, this can cause raw sewage overflows into lakes and rivers. Meanwhile, corporations raise rates and find other means of profit-making. For example United Water (RIGHT) was sued by residents in New Jersey in 2010 for allegations that it was selling useless warranties to cover repairs for broken pipes.

systems update, maintain and operate their facilities in a true partnership." But after proposing an exorbitant 13 percent rate hike, which was denied by the community, the corporation decided it would no longer work to extend service to those areas.[80] It walked away from critical expansion and maintenance of infrastructure simply because it was not profitable.

CORPORATIONS INCREASE THE BOTTOM LINE BY RAISING RATES

Since most infrastructure investments do not deliver the necessary level of profit demanded by a private corporation, water privatizers rely on rate increases and cutbacks in operation and maintenance. Because private corporations do not have the kinds of financing options or tax revenues that public systems can use to keep rates down, and because rates are an obvious way for corporations to increase revenue, residents served under privatized systems often pay increasingly more for their water. In fact, Janney Montgomery Scott, a private water industry analyst firm, rates states on their leniency in granting rate increases as a means of recommending target markets and predicting performance.[81] The industry measures the "success" of water privatization projects by its ability to generate revenue rather than to guarantee access, and in a non-competitive market there is little profit-motive to improve water quality and service.

This means that people served by private systems can pay more than double what those served by public systems pay. A 2008 analysis found that privately owned water utilities charge on average anywhere from 13 to almost 50 percent more than nearby public water system counterparts.[82] In one case, a private operator in New York asked for a 12 percent rate increase from residents who were already paying nearly three times the local public utility rate. Facing continually rising water costs in a time of economic uncertainty, one resident noted starkly: "People cannot afford to live or retire here anymore...we are all struggling to survive."[83]

...cutting jobs...

In the name of cutting costs, the first step in the privatization of a water system is often sweeping layoffs and reductions in salaries and benefits. The result: water systems become understaffed, while the workers that remain see their income reduced and are forced to try to make up for the shortcomings of an understaffed water system.

One survey of privatization cases found that privatization of public water systems leads to an average job loss of 34 percent.[84] United Water halved the water workforce in the city of Atlanta during the time it ran the city's water system from 1999-2003.[85] This led to rapid declines in water quality, even as rates rose each year. The city amassed a backlog of 14,000 work orders and struggled to maintain a 50

percent completion rate of required repairs.[86] The situation became so bad that the city was forced to spend $1 million to hire inspectors of its own to audit the work done by United Water.[87]

...and cutting corners

Corporations also attempt to increase profit by cutting corners, which can lead to environmental damage. These environmental costs are then shouldered by already strapped taxpayers.

A few years after Milwaukee suffered a water contamination outbreak (see "Health and economic impacts"), United Water took over the operation of the city's water treatment. While United Water was running the sewer system, several rain storms resulted in billions of gallons of raw and partially treated sewage flowing into Lake Michigan. Alerted by what seemed like an extraordinary rate of spilling, city officials decided to audit United Water's operations. Their findings showed the corporation was shutting down treatment pumps to cut costs and allowing untreated water to flow into the lake. In one instance the corporation attempted to save $515,000 by allowing more than 100 million gallons of sewage overflow into Lake Michigan, putting those who use the water at risk of contracting bacterial illness from fecal coliform contamination.[88] An ensuing lawsuit and further audit of operations found that inadequate maintenance and low staffing levels contributed to the discharge.[89]

It was the same story in two California Bay Area cities, Richmond and Burlingame. Veolia's U.S. based subsidiary, Veolia Water North America, spilled millions of gallons of sewage into the San Francisco Bay before it was sued by a pollution watchdog group.[90, 91]

In the end, municipalities are responsible for their water systems, privatized or not. In both the California cities and in Milwaukee, therefore, city taxpayers were left paying for fines, fees and upgrades mandated by the lawsuits, along with the beach closings and other tolls of the pollution in their own communities.

Some additional egregious examples include:

- **Gary, Ind:** United Water employees were charged with 26 counts of felony violations of the Clean Water Act for manipulating water quality tests and safety procedures in order to cut costs. Two workers conspired to raise disinfectant levels to proper standards only before inspections so that the corporation could save money. United Water's actions threatened the safety of the drinking water of more than 100,000 people with possible E. coli contamination.[92]
- **Indianapolis, Ind:** After a Veolia employee error sent the wrong treatment chemicals into the city's wastewater system, it took twelve hours for the corporation to publicly report the mistake. Some customers were not informed of numerous boil water notices for the city's water system until days after problems in the water were identified.[93]
- **Atlanta, Ga:** Insufficient treatment by United Water caused brown and orange tinged water to flow from Atlanta's faucets and forced residents to boil their water.[94]

EFFICIENCY SAVINGS END UP IN CORPORATE COFFERS, NOT IN COMMUNITIES SERVED

One of privatization's promises is that the private sector possesses greater knowledge and ability to "trim the fat" and run systems at lower costs. While that often translates to job cuts and cutting corners, sometimes private sector operations do identify legitimate cost efficiencies. Unfortunately for the communities served by these systems, these cost savings translate into corporate profits not community benefits, such as lower water rates.[95]

For example, the town of Redding, Calif. recently confirmed this reality when it commissioned a study to assess the possible cost savings that would accompany privatization of its water system. The report found costs associated with the privatization contract and the corporation's need to show profit would offset any savings. As a result, Redding decided to keep its water public.[96]

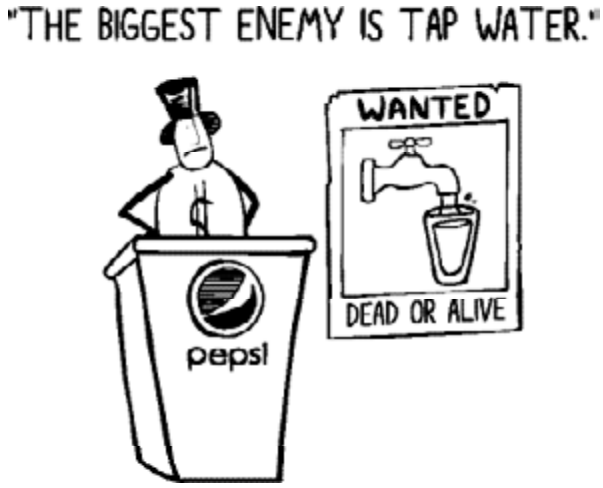
WATER CORPORATIONS UNDERMINE DEMOCRATIC CONTROL OF WATER

As cases like Redding demonstrate, many public officials understand that although privatization might appear a viable solution, the drawbacks are great. In response, corporations have resorted to a range of unsavory tactics in their attempt to capture the U.S. water market.

Using resources that dwarf those available to public officials, for instance, corporations are able to run slick political campaigns that support privatization initiatives. The city of Trenton, N.J. is one example of a city forced to confront an expensive corporate-run campaign. New Jersey American Water spent nearly $250,000 on mailings, advertisements, telephone polls, and canvassing in an unsuccessful effort to convince voters to approve the sale of their water system.[97] According to a former New Jersey public official who has consulted with water companies, corporations try to court "champion" members of governments to represent their interests in these types of campaigns, even paying people to show up at public meetings and write letters to officials.[98]

In Stockton, Calif., a water corporation attempted to circumvent the democratic process. Residents circulated a ballot initiative that would have required a public vote before the water system could be handed over to a corporation. But, after speaking with industry representatives, Stockton public officials rushed to complete the contract signing two weeks before the election in order to avoid public interference with the plan put forward by private water corporation OMI-Thames. On Election Day, the initiative passed with a 60 percent margin, but it was too late. The deal had already gone through despite the obvious community opposition.[99]

At times, there is even outright bribery. In East Cleveland, Ohio, CH2M Hill, a private corporation involved in water engineering and operations, bribed the mayor's office in order to gain a no-bid contract to run the city's water system. The contract eventually paid out $3.9 million to the corporation for services that the city had been providing for less than half



of that cost. The mayor and an employee of the corporation have been convicted on racketeering and other charges, and the city was forced to sue the corporation for $14 million for a breach of contract.[100]

In another case, a wastewater treatment corporation admitted to bribing a New Orleans Sewerage and Water Board official in exchange for favorable treatment. The city officials were eventually charged with conspiracy, bribery, and fraud after an FBI investigation that also yielded a $3 million fine for CH2M Hill.[101, 102]

RETURNING WATER TO PUBLIC HANDS A CHALLENGE

Once cities realize the pitfalls of privatization outweigh any short-term benefits they might provide, they often face uphill battles to regain control of their water systems. Corporations fight costly campaigns and force long legal battles to prevent community action.

What happened in Lexington, Ky. is a tough lesson in the difficulties cities and residents face in standing-up to the considerable resources of private water interests. Residents wanted their water system back from Kentucky American Water so much that they elected a mayor who ran on a platform that included remunicipalizing the city's water system. (One of her first acts in office was to remove a direct phone line to the private water corporation that had been installed in the mayor's office.) Soon after her election, local

residents pulled together to come up with a $750,000 loan to the city to help buy back the water system. Polls showed residents supported the city's plan to take back control of their water. During the first six months of the struggle, the city spent close to $300,000 in legal fees while American Water spent close to $1 million.

In addition to forcing a costly legal battle, the corporation hired several public relations firms to shape media coverage and manipulate public opinion. The firms reframed the issue as a "costly condemnation" and a referendum on the use of eminent domain, a policy mechanism that allows municipalities to purchase property in the name of the public good. Through this PR work, American Water eventually won a citywide vote against pursuing public control of the city's water system.[103]

This strategy is not isolated to Lexington. The same public relations firm that worked in Lexington also represented American Water in California and Illinois in similar cases, and even won an award for their work in Kentucky.[104]

PUBLIC'S MISGIVINGS ABOUT PRIVATIZATION MET WITH SPIN DOCTORING

Because of skepticism from the U.S. public, private water corporations are increasingly finding new ways to encourage municipalities to look favorably on private sector involvement in water system operations. The CEO of Veolia Water Americas admitted that, "[t]he challenge for the private sector is to...package our offer in a different manner so it's more digestible."[105]

Water corporations also work to gain access to events aimed at empowering public officials. The Stockton officials, for example met OMI-Thames at the U.S. Conference of Mayors, a bi-partisan meeting of mayors from across the country where the private-water industry sponsors events and policy discussions with the aim of presenting itself as an authoritative voice on water systems.[106]

These corporations have also found ways to "repackage" what they do. They are now in the mode of offering consulting contracts as a means to get a foot in the door of large public utilities and make officials more comfortable with the idea of private sector involvement in water provision.

For example, Veolia Water North America recently signed a $4 million contract with New York City to act as a consultant to the city. It produced a plan to cut between $100 million and $200 million from the city's $1.2 billion operations budget.[107] While this arrangement avoids the problems that arise when corporations control operations, it is still a "Band-Aid" solution that does not solve the root problems. New York City's system would be well served by increased public funding and support; instead, city officials have handed over the management of their employees to a private corporation. As one union official in New York City put it, "We have a management in New York that is so removed from its own employees that it has to hire a third-party private concern to speak to its own employees...What the heck are you spending $4 million for?" [108]

The good news for public water is that only 10 percent of water systems in the U.S. are privately run, and cities are starting to take steps to ensure that it stays that way. Additionally, almost ten percent of U.S. cities that were under private contract remunicipalized between 2002 and 2007.[109] After turning down an offer from United Water, the city of Gloucester, Mass. voted to make it illegal for the city to sell its water system or infrastructure associated with the system without a public vote, similar to the measure enacted by the city of Stockton as described above.[110] And Stockton itself celebrated a victory: after five years of infrastructure neglect and contract non-compliance, Stockton eventually had their contract with OMI-Thames overturned and now enjoys municipal control of their water system.[111]

These examples help explain the findings of the following section. People in the U.S. know that public officials and institutions are best positioned to manage their water systems, and the challenges faced by these systems are best addressed by strong public commitment, not private sector interference.

Findings

People across the U.S. support public water systems investment, but current public financing realities are woefully out of touch with public concerns. What's more, even as budget deficits and an uncertain economy looms, the public trusts local governments over corporations to provide our most essential public service.

A 2012 Corporate Accountability International poll, conducted by Lake Research Partners, finds: [112]

MAJORITY SUPPORT GOVERNMENT INVESTMENT IN PUBLIC WATER

Three-quarters (73 percent) of people in the U.S. believe government investment in safe public water systems is important, and about one-third (32 percent) feel this investment is "extremely important." This sentiment is reflected across the political spectrum: a majority of Democrats (81 percent), Independents (71 percent), and Republicans (63 percent) value investment in safe public water systems.

Despite popular support for investment in public water systems across party lines, the political will to fund these systems has dwindled. As a result, our water systems will face more than $600 billion in needs over the next twenty years, with dire consequences, as outlined above. These findings suggest that public officials looking to reinvest in public water not only have a strong public health and economic justification for doing so, but also the broad backing of their constituents.

MAJORITY TRUSTS LOCAL GOVERNMENTS OVER CORPORATIONS TO MANAGE THEIR WATER

Corporations are promising cost savings to cities in their increasing attempts to expand their markets. But the public is not sold on the appeal. The same poll reported 71 percent of people in the U.S. trust local governments over private corporations to provide public water, including 81 percent of Democrats, 80 percent of Independents, and 56 percent of Republicans. Almost half of the total sample (44 percent) "strongly" trusted local governments to provide their water over any other entity.

In light of the role large corporations have played in the economic downturn, it is no surprise widespread skepticism prevails when it comes to private control and management of our most essential resource. Such findings may also point to growing awareness of well-documented privatization failures like that of Atlanta. And, certainly, the flawed economics of water privatization will continue to present problems under privatized systems. Given as much, public support for local and democratic control is unlikely to change.

Instead, people are looking back to the history of success that has flowed from strong public water systems. These findings suggest the public is looking to public sector solutions to continue to safeguard health and safety through financial and political commitments to water. This sentiment should only be strengthened by the fact that this investment will boost the economy and job growth at such a critical time.

Conclusion

The state of public water systems in the U.S. deserves immediate attention. Underfunded and facing unprecedented needs, water infrastructure presents both a critical challenge and a unique opportunity for public officials charged with promoting public health, job growth and economic development.

Since Philadelphia led the nation in 1801 with the country's first water system, investments in water distribution and treatment have driven profound public health advancements. The deadliest waterborne diseases that once caused huge losses of life have been virtually eradicated. These advancements allowed the economic development of the twentieth century to occur.

In the past 20 years, however, there has been a change in the way that water systems receive funding, and the current investment funds are inadequate to meet our needs. In the middle of the twentieth century, the federal government took a strong role in increasing regulations on water pollution and drinking water quality in order to properly protect public safety. Along with these increased regulations came higher levels of grant money from the federal government, which once funded 75 percent of capital projects. But recently, programs like the State Revolving Funds have shifted the funding burden to states and municipalities who cannot foot the bill on their own.

This inadequate funding leads to problems in water systems that erode our economic growth, create public health risks and escalate infrastructure costs. Postponing this funding only leaves a heavier burden on future generations.

Band-Aid solutions like privatization and purchasing bottled water do not address the heart of the problem: lack of sustained political support and investment. On the other hand, addressing this core issue by increasing investment will create opportunities for job creation and economic growth. More than any other sector's infrastructure, water capital investment creates more jobs, and it stimulates the economy more than any tax cut.

The U.S. public is behind public water systems. The challenges facing public water systems demand immediate action, and the benefits of increased investment could not come at a more opportune time. Public water works — we must ensure it continues to do so for future generations.

› Congresswoman Eleanor Holmes Norton (RIGHT) announcing her office's end to spending on bottled water, a first step in supporting federal funding for public water infrastructure. Pictured here with *Think Outside the Bottle* Director, Kristin Urquizia.

Recommendations

Meeting the total short-term and long-term needs of our public water systems is ambitious, but possible. Together, public officials at all levels of government and the communities they serve can take steps to engender the public climate and build the political will necessary to guarantee water systems for generations to come. Indeed the nation's future prosperity and public health depend on it. And to this end, we know public, democratically-governed, water systems work best.

THE PRESIDENT AND MEMBERS OF CONGRESS:

- **Assert water as a national priority** reflective of the value the U.S. public puts on it, elevating water reinvestment to the same level in the public discourse as other essential public services.
- **Create new and improved funding mechanisms for public water systems**, supporting measures like a Water Infrastructure Trust Fund or Infrastructure Bank that provide permanent annual funding for municipal water systems.
- **Increase the federal share of grants for water infrastructure** akin to the Clean Water Act amendments of the 1970s that offered up to five times more in annual grant funding than was added to Drinking Water State Revolving Fund in 2010 for loans.
- **Ensure that the EPA has dedicated funding and support to regularly update and enforce water quality standards**, guaranteeing state and local systems are sufficiently resourced to meet these standards.

STATE AND LOCAL OFFICIALS:

- **Prioritize local tax dollars for public water systems**, helping supplement federal funds.
- **Cut wasteful government spending on bottled water**, reallocating the funds to bottle-less water coolers and public water systems at large.
- **Prioritize "green" infrastructure projects to reduce waste and increase efficiency.** Examples include the construction of permeable pavement, greenways, and wetlands that promote natural drainage (for more info see "Water Works" by Green For All).[113]

COMMUNITIES:

- **Join the *Public Water Works!* campaign.** Start by signing our open letter calling on public officials to reinvest in the tap at PublicWaterWorks.org.
- **Advocate strong political commitments to public water** by challenging candidates to take a stand for public control of water systems and the need for renewed investment in these systems.
- **Publicize attempts by private water corporations to own, operate or manage water systems** in your community.
- **Advocate community water rights**, introducing and supporting ordinances like those passed in Stockton, Calif. or Gloucester, Mass. (see Problems with Privatization section for details) that give the public a voice in any conversation concerning the privatization of public water supplies or systems.
- **Return private water systems to public control.** If your water system is privately owned or operated, call on public officials to remunicipalize or explore means of doing so.
- **Expose abuses by your private water provider** at PublicWaterWorks.org that may result in breaches of contract or public health threats.

PRIVATE WATER INDUSTRY:

- **Act within the law** and cease unethical practices such as purchasing favor with public officials through political contributions, aggressive lobbying and outright bribery.
- **Stop exploiting public water systems for private profit** by negotiating sweetheart deals to bottle public water for resale.
- **Do not interfere with national water policy, efforts to remunicipalize water systems at the local level,** or policies allowing communities to assert their right to a democratic voice in discussions about the ownership or operations of their water system.

END NOTES

1 United States Senate Committee on Environment and Public Works, Subcommittee on Water and Wildlife hearing entitled, "Our Nation's Water Infrastructure: Challenges and Opportunities," December 13, 2011, http://www.epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=1e6b5ff0-802a-23ad-4dbb-4683dd40ae03 (accessed February 22, 2012).

2 United States Senate Committee on Environment and Public Works, Subcommittee on Water and Wildlife hearing entitled, "Our Nation's Water Infrastructure: Challenges and Opportunities," December 13, 2011, http://www.epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=1e6b5ff0-802a-23ad-4dbb-4683dd40ae03 (accessed February 22, 2012).

3 Franklin, Benjamin, *Poor Richard's Almanack*, 1746, http://www.vlib.us/amdocs/texts/prichard46.html (accessed February 21, 2012).

4 Kramek, Niva and Lydia Loh, "The History of Philadelphia's Water Supply and Sanitation System," University of Pennsylvania: Philadelphia Global Water Initiative, June 2007, http://www.pgwi.org/documents/Philalessonsinsustainability.pdf (accessed February 21, 2012).

5 Salzman, James, "Thirst: A Short History of Drinking Water," 17 *Yale Journal of Law & the Humanities*, 94-121, 2006, http://scholarship.law.duke.edu/faculty_scholarship/1261 (accessed February 21, 2012).

6 United States Environmental Protection Agency, "The History of Drinking Water Treatment," February 2000, http://www.epa.gov/ogwdw/consumer/pdf/hist.pdf (accessed February 15, 2012).

7 United Nations Development Programme 2006 Human Development Report, "Beyond scarcity: Power, poverty and the global water crisis," 2006, pps. 29-32, http://hdr.undp.org/en/reports/global/hdr2006 (accessed February 21, 2012).

8 United States Environmental Protection Agency, "The History of Drinking Water Treatment," February 2000, http://www.epa.gov/ogwdw/consumer/pdf/hist.pdf (accessed February 15, 2012).

9 Cutler, David and Grant Miller, "The Role of Public Health Improvements in Health Advances: The 20th Century United Sates," February 2004, p 6, http://www.economics.harvard.edu/faculty/cutler/files/cutler_miller_cities.pdf (accessed February 21, 2012).

10 Cutler, David and Grant Miller, "The Role of Public Health Improvements in Health Advances: The 20th Century United Sates," February 2004, p 6, http://www.economics.harvard.edu/faculty/cutler/files/cutler_miller_cities.pdf (accessed February 21, 2012).

11 Seattle Public Utilities, "Clean Water Act," http://www.seattle.gov/util/Services/Drainage_&_Sewer/Keep_Water_Safe_&_Clean/CSO/CleanWaterAct/index.htm (accessed February 15, 2012).

12 Rural Community Assistance Partnership, "Still Living Without the Basics in the 21st Century," p 3, http://win-water.org/reports/RCAP_full_final.pdf (accessed February 21, 2012).

13 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

14 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

15 United States Environmental Protection Agency, "Summary of the Clean Water Act," http://www.epa.gov/lawsregs/laws/cwa.html (accessed February 21, 2012).

16 United States Environmental Protection Agency, "Safe Drinking Water Act (SDWA)," http://water.epa.gov/lawsregs/rulesregs/sdwa/ (accessed February 21, 2012).

17 United States Environmental Protection Agency, "History of the Clean Water Act," http://www.epa.gov/lawsregs/laws/cwahistory.html (accessed February 21, 2012).

18 United States Environmental Protection Agency, "25 Years of the Safe Drinking Water Act: History and Trends," 1999, p 7, http://permanent.access.gpo.gov/websites/epagov/www.epa.gov/safewater/consumer/trendrpt.pdf (accessed February 21, 2012).

19 Rural Community Assistance Partnership, "Still Living Without the Basics in the 21st Century," p 16, http://win-water.org/reports/RCAP_full_final.pdf (accessed February 21, 2012).

20 Penn State Public Broadcasting, "Liquid Assets: The Story of Our Water Infrastructure," Overview Video, 2008, http://liquidassets.psu.edu/#overview (accessed February 15, 2012).

21 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012).

22 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, pp 5-6,http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012).

23 United States Environmental Protection Agency, "CWSRF Program Diagram," http://water.epa.gov/grants_funding/cwsrf/cwsrf_diagram.cfm (accessed February 21, 2012).

24 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012).

25 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012) citing U.S. House, Committee on Transportation and Infrastructure, Subcommittee on Water Resources and the Environment, Meeting Clean Water and Drinking Water Infrastructure Needs, Hearing, 105th Congress, 1st session, April 23, 1997 (105-18). p. 307.

26 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, p 21, http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012) citing U.S. Congressional Budget Office, Public Spending on Transportation and Water Infrastructure, 4088, November 2010, p. 11, http://www.cbo.gov.

27 United States Environmental Protection Agency, "Clean Watersheds Needs Survey 2008: Report to Congress," 2008, p 2-1, http://water.epa.gov/scitech/datait/databases/cwns/upload/cwns2008rtc.pdf (accessed February 21, 2012).

28 United States Environmental Protection Agency, "Drinking Water Infrastructure Needs Survey and Assessment: Fourth Report to Congress," February 2009, p 1, http://water.epa.gov/infrastructure/drinkingwater/dwns/upload/2009_03_26_needssurvey_2007_report_needssurvey_2007.pdf (accessed February 15, 2012).

29 United States Environmental Protection Agency, "Final Distribution (State Allotment) of Drinking Water State Revolving Fund Appropriation for Fiscal Year 2010," http://www.epa.gov/ogwdw/dwsrf/allotments/funding_dwsrf_allotments_2010.html (accessed February 21, 2012).

30 Claudia Copeland and Mary Tiemann. "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," Congressional Research Service Report, December 21, 2010, p 8, http://www.fas.org/sgp/crs/homesec/RL31116.pdf (accessed February 21, 2012)

31 Black & Veatch, "50 Largest Cities Water/Wastewater Rate Survey," 2009/2010, p 2, http://www.bv.com/Downloads/Resources/Brochures/rsrc_EMS_Top50RateSurvey.pdf (accessed February 15, 2012).

32 United States General Accounting Office, "Water Infrastructure: Information on Financing, Capital, Planning, and Privatization," August 2002, p 29, http://www.gao.gov/new.items/d02764.pdf (accessed February 15, 2012).

33 "Cities Hike Water Charges as Financing Options Evaporate," American Water Intelligence, Vol 2, Issue 9, September 2011, http://www.americanwaterintel.com/archive/2/9/analysis/cities-hike-water-charges-financing-options-evaporate.html (accessed February 15, 2012).

34 United States General Accounting Office, "Water Infrastructure: Information on Financing, Capital, Planning, and Privatization," August 2002, p 4, http://www.gao.gov/new.items/d02764.pdf (accessed February 15, 2012).

35 American Water Works Association, "Dawn of the Replacement Era: Reinvesting in Drinking Water Infrastructure," May 2001, http://www.win-water.org/reports/infrastructure.pdf (accessed February 21, 2012).

36 American Society of Civil Engineers, "Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Infrastructure," 2011, p ix, http://www.asce.org/uploadedFiles/Infrastructure/Failure_to_Act/ASCE%20WATER%20REPORT%20FINAL.pdf (accessed February 21, 2012).

37 American Water Works Association, "Dawn of the Replacement Era: Reinvesting in Drinking Water Infrastructure," May 2001, p ix, http://www.win-water.org/reports/infrastructure.pdf (accessed February 21, 2012).

38 Gleick, P.S. and H. S. Cooley, "Energy implications of bottled water," Environmental Research Letters, February 19, 2009, http://iopscience.iop.org/1748-9326/4/1/014009/fulltext (accessed February 21, 2012).

39 U.S. Government Accountability Office, "Bottled Water: FDA Safety and Consumer Protections Are Often Less Stringent Than Comparable EPA Protections for Tap Water," June 2009, http://www.gao.gov/new.items/d09610.pdf (accessed February 21, 2012).

40 United States Environmental Protection Agency, "Analysis and Findings of The Gallup Organization's Drinking Water Customer Satisfaction Survey," August 6, 2003, http://www.epa.gov/safewater/ccr/pdfs/tools_survey_gallup_customersatification2003.pdf (accessed February 21, 2012).

41 Corporate Accountability International, "Tapping Congress to Get Off the Bottle," 2011, http://www.stopcorporateabuse.org/sites/default/files/TappingCongressToGetOffTheBottle.PDF (accessed February 21, 2012)., "Getting States Off the Bottle," 2009, 2010, http://www.stopcorporateabuse.org/GettingStatesOffTheBottle (accessed February 21, 2012).

42 Industry Revenues: $10.6277 billion - Beverage Marketing Corporation, "Bottled Water Recovers Somewhat from Recessionary Years, New Report from Beverage Marketing Corporation Shows," Press Release, September 2011, http://www.beveragemarketing.com/?section=pressreleases (accessed February 21, 2012)., Federal Contribution to DWSRF $1,387 billion - United States Environmental Protection Agency, "Final Distribution (State Allotment) of Drinking Water State Revolving Fund Appropriation for Fiscal Year 2010," http://www.epa.gov/ogwdw/dwsrf/allotments/funding_dwsrf_allotments_2010.html (accessed February 21, 2012).

43 Harris Interactive, "Americans Cutting Back on Everyday Expenses to Save Money," July 6, 2011, http://www.harrisinteractive.com/NewsRoom/HarrisPolls/tabid/447/mid/1508/articleId/830/ctl/ReadCustom%20Default/Default.aspx (accessed February 21, 2012).

44 Beverage Marketing Corporation, "Bottled Water Recovers Somewhat from Recessionary Years, New Report from Beverage Marketing Corporation Shows," Press Release, September 2011, http://www.beveragemarketing.com/?section=pressreleases (accessed February 21, 2012).

45 Report Card for America's Infrastructure, "Fact Sheet: Drinking Water," American Society of Civil Engineers, 2009, http://www.infrastructurereportcard.org/fact-sheet/drinking-water (accessed February 21, 2012).

46 Brunkard, Joan M., et al, "Surveillance for Waterborne Disease Outbreaks Associated with Drinking Water – United States, 2007 – 2008," Centers for Disease Control and Prevention *Morbidity and Mortality Weekly Report*, September 23, 2011, http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6012a4.htm (accessed February 15, 2012).

47 Reynolds, K.A., K.D. Mena, C.P. Gerba, "Risk of Waterborne Illness via Drinking Water in the United States," *Reviews of Environmental Contamination and Toxicology*, 192:117-58, 2008, http://www.ncbi.nlm.nih.gov/pubmed/18020305 (accessed February 16, 2012).

48 "Giardiasis," *A.D.A.M. Medical Encyclopedia*, May 25, 2010, http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001333/ (accessed February 16, 2012).

49 Penn State Public Broadcasting, "Liquid Assets: The Story of Our Water Infrastructure," Overview Video, 2008, http://liquidassets.psu.edu/#overview (accessed February 15, 2012).

50 Halsey, Ashley III, "Billions Needed to Upgrade America's Leaky Water Infrastructure," *The Washington Post*, January 2, 2012, http://www.washingtonpost.com/local/billions-needed-to-upgrade-americas-leaky-water-infrastructure/2011/12/22/gIQAdsEoWP_story.html (accessed February 21, 2012).

51 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, p 9, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012)., "Risk of Swimming in Polluted Water," Beach Quality and Safety, NYC Department of Health and Mental Hygiene, http://www.nyc.gov/html/doh/html/beach/beach_risks.shtml (accessed February 16, 2012).

52 Centers for Disease Control and Prevention, "Waterborne Diseases Could Cost Over $500 Million Annually in U.S.," Press Release, July 14, 2010, http://www.cdc.gov/media/pressrel/2010/r100714.htm (accessed February 15, 2012).

53 Corso, Phaedra S., et al, "Costs of Illness in the 1993 Waterborne *Cryptosporidium* Outbreak, Milwaukee, Wisconsin," Centers for Disease Control and Prevention *Emerging Infectious Diseases*, Volume 9, Number 4, April 2003, http://wwwnc.cdc.gov/eid/article/9/4/02-0417_article.htm (accessed February 15, 2012).

54 City of Milwaukee – Water Works, "Basic Financial Statements: December 31, 2010 and 2009," "Total Expenses" - $67.9 million, http://city.milwaukee.gov/ImageLibrary/Groups/WaterWorks/files/2010and2009KPMGFinancialStatem.pdf (accessed February 16, 2012).

55 Centers for Disease Control and Prevention, "Waterborne Diseases Could Cost Over $500 Million Annually in U.S.," Press Release, July 14, 2010, http://www.cdc.gov/media/pressrel/2010/r100714.htm (accessed February 15, 2012).

56 De Albuquerque, Catarina, "Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation," United Nations Human Rights Council, Eighteenth session, August 2, 2011, p 9, http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf (accessed February 21, 2012).

57 United States Environmental Protection Agency, "Water Distribution Systems," *Aging Water Infrastructure Research*, http://www.epa.gov/awi/distributionsys.html (accessed February 15, 2012).

58 Report Card for America's Infrastructure, "Fact Sheet: Drinking Water," American Society of Civil Engineers, 2009, http://www.infrastructurereportcard.org/fact-sheet/drinking-water (accessed February 15, 2012).

59 Kenny, J.F., et al, "Estimated Use of Water in the United States in 2005," *U.S. Geological Survey Circular*, 1344, p 52, 2009, http://pubs.usgs.gov/fs/2009/3098/pdf/2009-3098.pdf (accessed February 15, 2012).

60 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

61 United States Environmental Protection Agency, "Water Trivia Facts," citing World Water Council, http://water.epa.gov/learn/kids/drinkingwater/water_trivia_facts.cfm (accessed February 15, 2012)., "Africa's Populations Look Set to Soar by 2100," *The Economist Online*, May 5, 2011, http://www.economist.com/blogs/dailychart/2011/05/world_population_projections (accessed February 15, 2012).

62 American Society of Civil Engineers, "Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Infrastructure," 2011, p vi, http://www.asce.org/uploadedFiles/Infrastructure/Failure_to_Act/ASCE%20WATER%20REPORT%20FINAL.pdf (accessed February 21, 2012).

63 Betz, Jonathan, "Water Shortages Nothing New for City of Kemp," *WFAA Dallas/Fort Worth*, August 8, 2011, http://www.wfaa.com/news/local/Water-shortages-nothing-new-for-city-of-Kemp-127274638.html (accessed February 15, 2012).

64 American Society of Civil Engineers, "Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Infrastructure," 2011, http://www.asce.org/uploadedFiles/Infrastructure/Failure_to_Act/ASCE%20WATER%20REPORT%20FINAL.pdf (accessed February 21, 2012).

65 United States Environmental Protection Agency, "Drinking Water Infrastructure Needs Survey and Assessment: Fourth Report to Congress," February 2009, http://water.epa.gov/infrastructure/drinkingwater/dwns/upload/2009_03_26_needssurvey_2007_report_needssurvey_2007.pdf (accessed February 15, 2012).

66 American Society of Civil Engineers, "Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Infrastructure," 2011, http://www.asce.org/uploadedFiles/Infrastructure/Failure_to_Act/ASCE%20WATER%20REPORT%20FINAL.pdf (accessed February 21, 2012).

67 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

68 Testimony of Stephen Fuller, George Mason University on behalf of The Associated General Contractors of America, Presented to the Committee on Transportation and Infrastructure, U.S. House of Representatives, "For a hearing on Infrastructure Investment: Ensuring an Effective Economic Recovery Package," January 22, 2009, http://www.agc.org/galleries/advy/090122%20T-I%20Hearing%20-%20AGC%20Statement.pdf (accessed February 21, 2012).

69 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

70 The U.S. Conference of Mayors Water Council, "Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy," U.S. Conference of Mayors, August 14, 2008, http://usmayors.org/urbanwater/documents/LocalGovt%20InvtInMunicipalWaterandSewerInfrastructure.pdf (accessed February 21, 2012).

71 Recovery.gov: Track the Money, "Total Funds Allocated," http://www.recovery.gov/Transparency/fundingoverview/Pages/fundingbreakdown.aspx#ContractsGrantsLoans (accessed February 17, 2012).

72 Blinder, Alan S., Mark Zandi, "How the Great Recession Was Brought to an End," July 27, 2010, p 4, http://www.economy.com/mark-zandi/documents/End-of-Great-Recession.pdf (accessed February 16, 2012).

73 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

74 Zandi, Mark, "At Last, the U.S. Begins a Serious Fiscal Debate," *Moody's Analytics*, April 14, 2011, http://www.economy.com/dismal/article_free.asp?cid=198972&src=msnbc (accessed February 16, 2012).

75 Heintz, James, Robert Pollin, and Heidi Garret-Peltier, "How Infrastructure Investments Support the U.S. Economy: Employment, Productivity and Growth," Public Economy Research Institute and Alliance for American Manufacturing, January 2009, Table 3.1, http://www.americanmanufacturing.org/files/peri_aam_finaljan16_new.pdf (accessed February 15, 2012).

76 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

77 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, p 7, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

78 Arnold, Craig Anthony (Tony), "Water Privatization Trends in the United States: Human Rights, National Security, and Public Stewardship," *William and Mary Environmental Law and Policy Review*, Volume 33, Issue 3, Article 4, 2009, p 825, http://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=1027&context=wmelpr (accessed February 17, 2012).

79 Frérot, Antoine, *Water: Towards a Culture of Responsibility*, Durham, NH: University of New Hampshire Press, 2011, p 94.

80 Eyre, Eric, "Water Company Hypocritical About Funding Public-Private Projects, Carper Says," *The Charleston Gazette*, September 5, 2011, http://wvgazette.com/News/201109051435 (accessed February 17, 2012)., Marks, Rusty, "Kanawha Asks Status of Water Projects," *The Charleston Gazette*, June 28, 2011, http://www.wvgazette.com/News/201106280776 (accessed February 17, 2012).

81 "Janney releases new regulatory ranking index," *American Water Intelligence*, Volume 2, Issue 5, May 2011, http://www.americanwaterintel.com/archive/2/5/analysis/janney-releases-new-regulatory-ranking-index.html (accessed February 21, 2012).

82 Food and Water Watch, "Privatization No Cure-All for Infrastructure Woes: Repairing U.S Water Systems Could Boost Employment, Help Ravaged Economy," Press Release, October 14th, 2008, http://www.foodandwaterwatch.org/pressreleases/privatization-no-cure-all-for-infrastructure-woes-repairing-u-s-water-systems-could-boost-employment-help-ravaged-economy/ (accessed February 21, 2012).

83 Tomeo, Jamie L, "Communities, Pols Oppose Potential Aqua-New York Rate Hike," *Levittown Tribune*, September 11, 2009, http://www.antonnews.com/levittowntribune/news/2812-communities-pols-oppose-potential-aqua-new-york-rate-hike.html (accessed February 21, 2012.)

84 Food and Water Watch, "Water Privatization Threatens Workers, Consumers and Local Economies," May 2009, http://documents.foodandwaterwatch.org/unionJobsFinal-web.pdf (accessed February 21, 2012).

85 "Fiascos: Atlanta, Georgia" *Public Citizen*, 2010 http://www.citizen.org/cmep/article_redirect.cfm?ID=9211 (accessed February 17, 2012).

86 "US Private Firms Shrink From Weak Deals," *American Water Intelligence*, Volume 4, Issue 8, August 2003, http://www.globalwaterintel.com/archive/4/8/general/us-private-firms-shrink-from-weak-deals.html (accessed February 17, 2012).

87 "The Water Privatization "Model": A Backgrounder on United Water's Atlanta Fiasco," Public Citizen, http://www.citizen.org/documents/atlantafiasco.pdf (accessed February 17, 2012).

88 "Government Pollution: The Metropolitan Milwaukee Sewerage District's Impact on Lake Michigan," *Wisconsin Policy Research Institute Report*, Volume 16, Number 6, September 2003, http://www.wpri.org/Reports/Volume16/Vol16no6.pdf (accessed February 16, 2012).

89 Mayor's Independent MMSD Audit Committee, "Final Report," October 1, 2004, http://city.milwaukee.gov/ImageLibrary/Public/MMSDAuditCom/docs/MMSD_AUDIT_ABSOLUTE_FINAL.pdf (accessed February 16, 2012)., United States Court of Appeals, Seventh Circuit, "Friends of Milwaukee Rivers and Alliance for Great Lakes v. Milwaukee Metropolitan Sewerage District," No. 08-1103, Sept 9, 2008 – February 13, 2009, http://caselaw.findlaw.com/us-7th-circuit/1488653.html (accessed February 16, 2012). (accessed February 16, 2012).

90 Kay, Jane, "Burlingame, S.F. Baykeeper Settle Over Sewage," *San Francisco Chronicle*, August 21, 2008, http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/08/21/BACK12F55O.DTL (accessed February 16, 2012).

91 San Francisco Baykeeper, "City of Richmond Pledges to Clean Up its Sewage System," Press Release, October 18, 2006, http://baykeeper.org/press_release/city-richmond-pledges-clean-its-sewage-system (accessed February 16, 2012).

92 United States Department of Justice, "Gary, Indiana, Wastewater Treatment Operator and Managers Charged with Conspiracy and Violating the Clean Water Act," Press Release, December 8, 2010, http://www.justice.gov/opa/pr/2010/December/10-enrd-1409.html (accessed February 16, 2012).

93 "Waves of Regret," Water for All: U.S. Network to Keep Water as a Public Trust, Public Citizen, June 2005 http://www.citizen.org/documents/waves.pdf (accessed February 16, 2012).

94 Arnold, Craig Anthony (Tony), "Water Privatization Trends in the United States: Human Rights, National Security, and Public Stewardship," *William and Mary Environmental Law and Policy Review*, Volume 33, Issue 3, Article 4, 2009, http://scholarship.law.wm.edu/cgi/viewcontent.cgi?article=1027&context=wmelpr (accessed February 17, 2012).

95 Warner, Mildred, "Water Privatization Does Not Yield Cost Savings," *Reclaiming Public Water- Achievements, Struggles and Visions from Around the World*," Transnational Institute, March 2011, http://www.tni.org/sites/www.tni.org/files/Water%20privatization%20does%20not%20yield%20cost%20savings.pdf (accessed February 22, 2012).

96 "Reports: City of Redding Privatization Unnecessary; Consultants Say Outsourcing Could be Costly," *Redding.com* News, October 29, 2011, http://www.redding.com/news/2011/oct/29/reports-city-privatization-unnecessary/ (accessed February 17, 2012).

97 Hall, Mike, "Trenton Voters Say 'No' to Private Water," *AFL-CIO Now Blog*, June 16, 2010, http://blog.aflcio.org/2010/06/16/trenton-voters-say-no-to-private-water/ (accessed February 16, 2012).

98 Politi, Daniel, "Low Rates, Needed Repairs Lure 'Big Water' to Uncle Sam's Plumbing," *iWatch News*, Center for Public Integrity, http://www.iwatchnews.org/2003/02/12/5728/low-rates-needed-repairs-lure-big-water-uncle-sams-plumbing (accessed February 16, 2012).

99 Concerned Citizens Coalition of Stockton, "Coalition History," http://www.cccos.org/history.html (accessed February 16, 2012).

100 Trickey, Erick, "Inside the Nate Gray Case," *Cleveland Magazine*, June 2005, http://www.clevelandmagazine.com/ME2/dirmod.asp?sid=586CA122EB394032BD4AA3B686FF03D9&nm=Editorial&type=Publishing&mod=Publications%3A%3AArticle&mid=15786000D8080459 6A222593669321019&tier=4&id=02A2750FF67B4284B16C0C6993B4BD22 (accessed February 16, 2012)., Kane, Brad, "Ohio City Sues CH2M Hill Over 'Sweetheart Deal,'" *NaplesNews.com*, August 31, 2008, http://www.naplesnews.com/news/2008/aug/31/ohio-city-sues-ch2m-hill-over-sweetheart-deal/ (accessed February 22, 2012).

101 U.S. Attorney's Office, Eastern District of Louisiana, "Sewage and Water Board Director Indicted on Federal Corruption Charges; Two Others Plead Guilty," Press Release, December 11, 2009, http://www.fbi.gov/neworleans/press-releases/2009/no121109a.htm (accessed February 22, 2012).

102 "New Orleans' Effort to Privatize Its Water and Sewer Systems: An Analysis," Public Citizen, September 2001, http://www.citizen.org/documents/New_Orleans_analysis_(PDF).pdf (accessed February 22, 2012).

103 Sanitow, Alan, Deborah Kaufman, Michael Fox, "Thirst: Fighting the Corporate Theft of Our Water," Chapter 5, p 88, Jossey-Bass : San Francisco, 2007.

104 "The Moriah Group Wins PRSA Silver Anvil Award," Press Release, 2007, http://www.moriahgroup.com/subpage.php?pageId=396 (accessed February 22, 2012).

105 "Contractors Debate Future of Performance-Based Model," *American Water Intelligence*, Volume 2, Issue 12, December 2011, http://www.americanwaterintel.com/archive/2/12/analysis/contractors-debate-future-performance-based-model.html (accessed February 22, 2012).

106 "Water Privatization in Stockton, California: Backgrounder," Water for All: U.S. Network to Keep Water as a Public Trust, Public Citizen, http://www.citizen.org/documents/UpdatedBackgrounder_20021104.pdf (accessed February 16, 2012).

107 "New York City Seeks Veolia's Help in Cutting Operating Costs," *American Water Intelligence*, Volume 2, Issue 12, December 2011, http://www.americanwaterintel.com/archive/2/12/insight/new-york-city-seeks-veolias-help-cutting-operating-costs.html (accessed February 22, 2012).

108 Chavkin, Sasha, "City Hires Water Management Company to Steer Deep Spending Cuts," *The New York World*, November 22, 2011, http://www.thenewyorkworld.com/2011/11/22/water-management-company/ (accessed February 22, 2012).

109 Warner, Mildred, "Water Privatization Does Not Yield Cost Savings," *Reclaiming Public Water- Achievements, Struggles and Visions from Around the World*," Transnational Institute, March 2011, http://www.tni.org/sites/www.tni.org/files/Water%20privatization%20does%20not%20yield%20cost%20savings.pdf (accessed February 22, 2012).

110 Fletcher, Steven, "Bill on Water Supply Sale Now on the Books," *GloucesterTimes.com*, September 15, 2011, http://www.gloucestertimes.com/local/x478400274/Bill-on-water-supply-sale-now-on-the-books/print (accessed February 22, 2012).

111 Concerned Citizens Coalition of Stockton, "Coalition History," http://www.cccos.org/history.html (accessed February 16, 2012).

112 Lake Research Partners designed and administered this study, which was conducted with telephone interviews among a representative sample of 1,014 U.S. adults nationwide. The survey was conducted January 27-30, 2012. The margin of error is +/-3.1%.

113 Green For All, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," 2011, http://greenforall.org.s3.amazonaws.com/pdf/Water-Works.pdf (accessed February 21, 2012).

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