



THE STATE OF PUBLIC WATER IN THE UNITED STATES

About Food & Water Watch

Food & Water Watch champions healthy food and clean water for all. We stand up to corporations that put profits before people, and advocate for a democracy that improves people's lives and protects our environment. We envision a healthy future for our families and for generations to come, a world where all people have the wholesome food, clean water and sustainable energy they need to thrive. We believe this will happen when people become involved in making democracy work and when people, not corporations, control the decisions that affect their lives and communities.

Food & Water Watch has state and regional offices across the country to help engage concerned citizens on the issues they care about. For the most up-to-date contact information for our field offices, visit foodandwaterwatch.org.

National Office

1616 P Street, NW
Suite 300
Washington, DC 20036
(202) 683-2500

Oakland, California

1814 Franklin Street
Suite 1100
Oakland, CA 94612
(510) 922-0720

Los Angeles, California

3000 S. Robertson Boulevard
Suite 255
Los Angeles, CA 90034
(323) 843-8450

Florida

1044 NE 15th Avenue
Fort Lauderdale, FL 33304
(954) 372-1881

Colorado

1740 High Street
Denver, CO 80218
(720) 449-7505

Iowa

505 Fifth Avenue
Suite 818
Des Moines, IA 50309
(515) 344-4834

Maine

142 High Street
Suite 501-C
Portland, ME 04101
(207) 619-5845

Maryland

3121 St. Paul Street
Suite 28
Baltimore, MD 21218
(410) 394-7650

Michigan

2727 Second Avenue
Suite 136
Detroit, MI 48201
(313) 486-1356

New Jersey

100 Bayard Street
Suite 202
New Brunswick, NJ 08901
(732) 839-0860

New Mexico

7804 Pan American
East Freeway NE #2
Albuquerque, NM 87109
(505) 633-7366

New York

68 Jay Street
Suite 713
Brooklyn, NY 11201
(718) 943-9085

North Carolina

801 Gilbert Street
Suite 204
Durham, NC 27701
(919) 794-6380

Illinois

670 W Hubbard Street
Suite 300
Chicago, IL 60654
(773) 796-6086

Oregon

917 SW Oak Street
Suite 404
Portland, OR 97205
(971) 266-4528

Pennsylvania

1501 Cherry Street
Second Floor
Philadelphia, PA 19102
(267) 428-1903



THE STATE OF PUBLIC WATER IN THE UNITED STATES

TABLE OF CONTENTS

| | |
|--|----|
| Executive Summary | 2 |
| Key Findings | 2 |
| Background: The Progressive Era’s Turn to Public Ownership of Water Systems . . . | 3 |
| The State of the Industry Today | 4 |
| Trends | 5 |
| Accountable Service | 6 |
| Affordable Service | 6 |
| <i>Water Charges of the 500 Largest Water Systems</i> | 7 |
| Equitable Service | 7 |
| Environmentally Responsible Service | 8 |
| <i>Watershed Protection</i> | 8 |
| <i>Water Conservation</i> | 9 |
| <i>Local Planning and Smart Growth</i> | 9 |
| Effective Service | 10 |
| Ways Forward | 11 |
| Appendix A: Rate Survey State Details | 12 |
| Appendix B: Rate Survey Methodology | 14 |
| Endnotes | 15 |

Executive Summary

Nearly nine out of ten people in the United States receive their water service from a publicly owned utility. Although water privatization receives a great deal of attention from policy makers, the dominant trend is in the other direction — toward public ownership.

There are many good reasons for this trend. By owning and operating their water and sewer systems, local governments have control over the decisions that determine the cost and quality of services that are essential for public health and wellbeing as well as economic viability. This control allows governments to direct development, planning and growth and to better protect the environment and sustain their local economies.

Food & Water Watch reviewed eight years of data from the Federal Safe Drinking Water Information System to document the ongoing annual shift toward public ownership.

Food & Water Watch also conducted a comprehensive survey of the water rates of the 500 largest U.S. community water systems and found that large for-profit,

privately owned systems charged 58 percent more than large publicly owned systems. This is the largest water rate survey of its kind in the country.

Key Findings

Public water prevails across the country. The vast majority of people receive tap water from a publicly owned utility.

- Publicly owned utilities served 87 percent of people that have piped water service.
- For-profit water companies own only about 10 percent of water systems, most of which serve small communities.

There is an ongoing nationwide trend toward public ownership of water systems. More and more people each year receive their water service from a public utility.

- From 2007 to 2014, the portion of people with water service from publicly owned systems increased from 83 percent to 87 percent.
- Over that period, the number of private systems dropped 7 percent (a loss of nearly 1,700 privately



owned systems), while the number of people served by privately owned systems fell 18 percent (8 million people).

- At the same time, the number of publicly owned systems remained fairly constant, but these public systems saw their service population grow by 10 percent, adding 24 million people to their networks.
- Public water utilities are taking over and consolidating private systems.

Public service is the most affordable option. A survey of the 500 largest community water systems reveals:

- On average, private for-profit utilities charged households 58 percent more than local governments charged for drinking water service — an extra \$185 a year.
- The average government utility charged \$316.20 for 60,000 gallons a year, while the average for-profit company charged \$500.96 (58 percent more) for the same amount of water.
- In New York and Illinois, private systems charged about twice as much as their public counterparts.
- In Pennsylvania, private systems charged 84 percent more than public systems, adding \$323 onto the typical household’s annual water bill.

- In New Jersey, private systems charged 79 percent more than public systems, adding \$230 onto the typical household’s annual water bill.

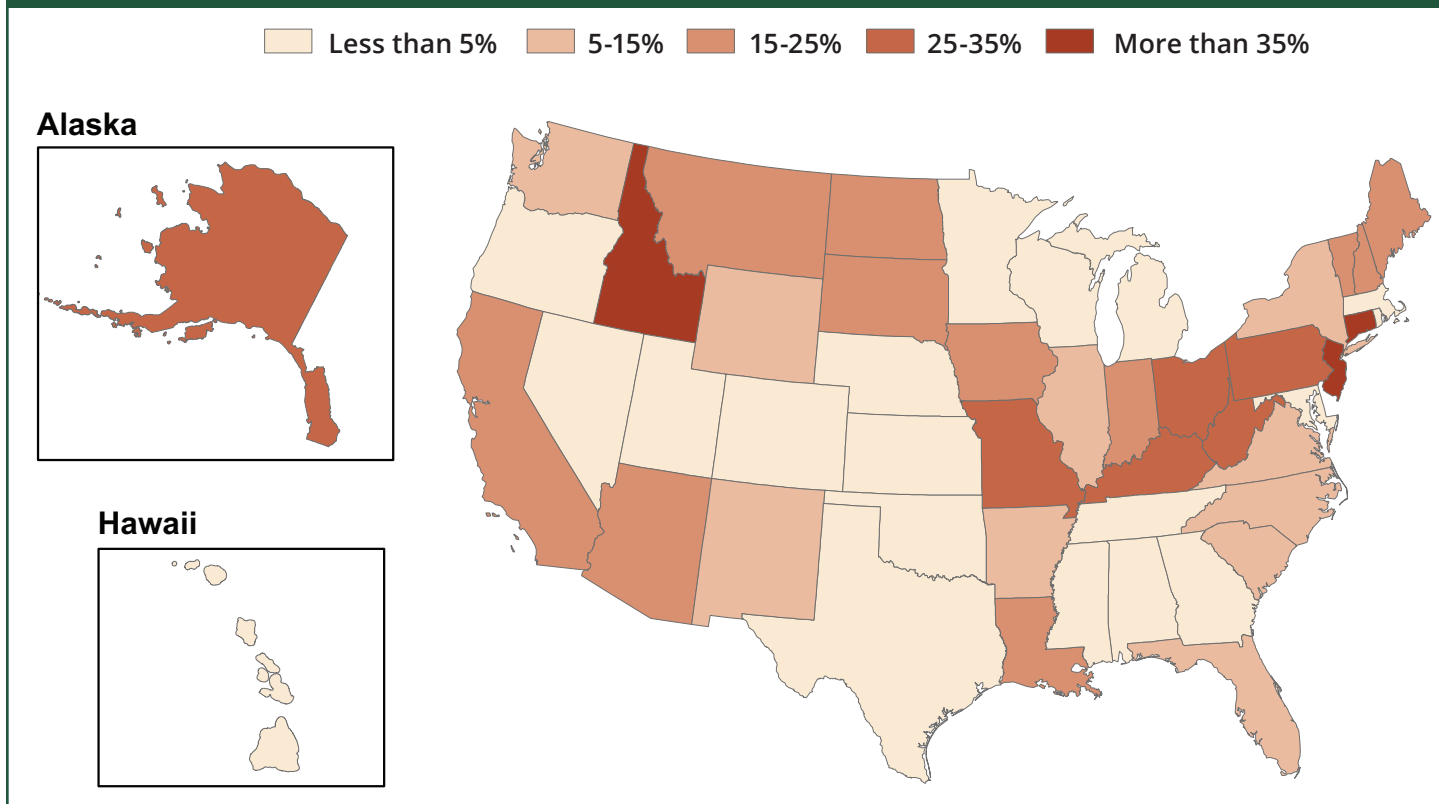
Background: The Progressive Era’s Turn to Public Ownership of Water Systems

Historically, public provision of water services has led to better quality, less-expensive and more-equitable service, and substantial improvements in public health.

Private water companies had served many of the nation’s largest cities until the turn of the twentieth century, when cholera outbreaks and destructive fires inspired a surge of cities to take over water provision for health and public safety reasons. From about 1880 to about 1920, thousands of cities — including Los Angeles and San Francisco — assumed public control of their water systems. This wave drew inspiration from earlier movements toward public water in Boston, New York City, Philadelphia, Baltimore and Chicago.¹

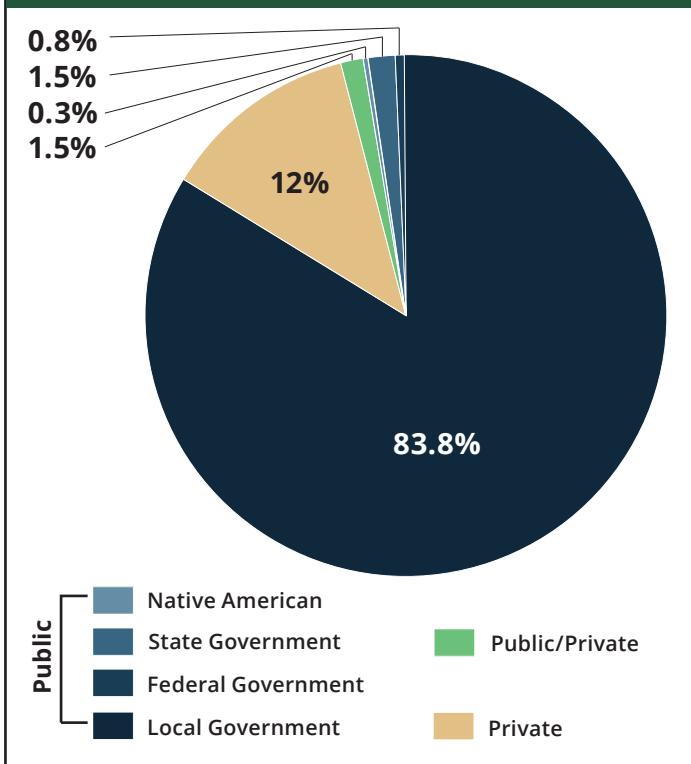
In the 1800s, New York City took over responsibility for providing drinking water services, creating a new system apart from the one privately held by the Manhattan

Figure 1: Private Ownership of Community Water Systems by Service Population (2014)



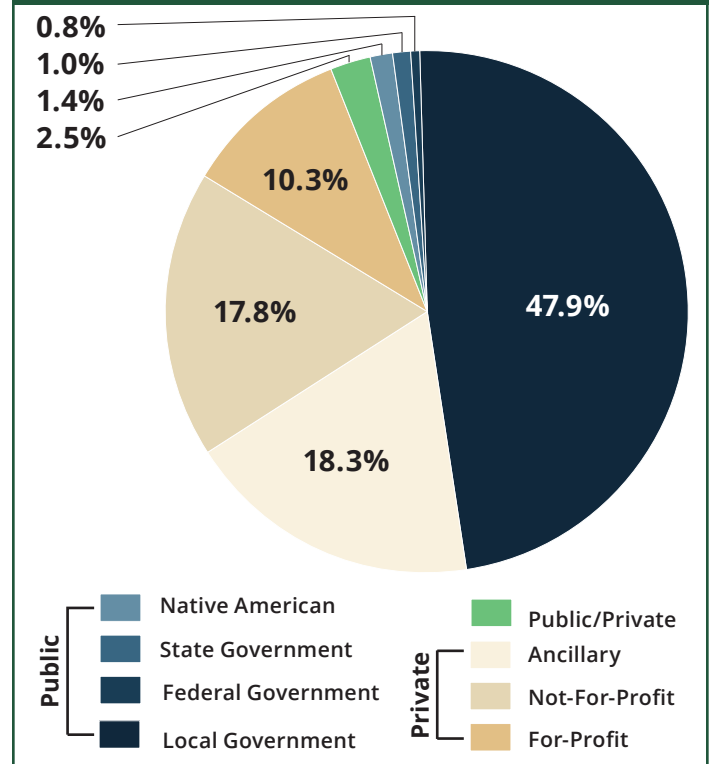
SOURCE: U.S. Environmental Protection Agency. Safe Drinking Water Federal Information System. FY2014 Inventory Data.

Figure 2: Community Water System Ownership By Number of People Served (2014)



SOURCE: U.S. Environmental Protection Agency. Safe Drinking Water Federal Information System. FY2014 Inventory Data. June 30, 2014.

Figure 3: Community Water System Ownership By Number of Systems (2014)



SOURCES: Food & Water Watch calculations based on U.S. Environmental Protection Agency (EPA). Safe Drinking Water Federal Information System. FY2014 Inventory Data; U.S. EPA. "2006 Community Water System Survey: Volume 1." February 2009 at 9.

Company.² The city did this after the Manhattan Company, the predecessor of JPMorgan Chase,³ was blamed for an outbreak of cholera that killed 3,500 people and for inadequate water infrastructure to fight fires.⁴ Similarly, by 1900, concerns about water supply, high prices and poor service had led both Los Angeles and San Francisco to take public control of their water systems from private entities.⁵

For customers, public ownership meant lower water prices. An 1899 federal survey found that public water utilities were charging rates that were 24 percent less than those of private water companies at the time.⁶

Public ownership also significantly expanded access and improved water quality, helping to prevent diseases.⁷ Many cities made large improvements to their water supplies and built new treatment facilities.⁸

For example, after Billings, Mont., bought the Billings Water Company in 1915, the city built a purification plant and extended water lines to serve the whole city.⁹ After New Orleans took over the local private water system in 1908, the city made investments that cut waterborne disease rates dramatically. The private water company that had

served the city distributed unfiltered water from the Mississippi River, which was contaminated by sewage dumped upriver. After residents successfully organized to strip the company of its charter, the city purchased the system and, over the next 15 years, undertook massive improvement projects to expand service and install a filtration system.¹⁰

Public ownership reaped great public health outcomes in large part because it allowed for more-equitable service. Local governments extended water lines to low-income and black communities that had been neglected by private companies.¹¹ One analysis found that public ownership of water systems cut typhoid rates in black populations in the South by as much as 42 percent, yet public ownership had no statistically significant impact on typhoid rates among white populations.¹²

Public ownership remains the most affordable and equitable option today.

The State of the Industry Today

Publicly owned utilities provide most water and sewer services in the United States.¹³ In 2014, public entities served about 87 percent of people with piped water service (see Figure 2).¹⁴ Private water service is concen-

trated in a few states. In 25 states, private water companies serve less than 10 percent of the population, while 4 states have private water companies serving more than 35 percent of their population (see Figure 1).¹⁵

While most people in the United States have public tap water, only about half of U.S. water systems are publicly owned (see Figure 3). The reason is that there are many small private systems serving subdivisions and other small communities, while nearly every large city owns its own water system and serves a much larger population.

According to survey data from the U.S. Environmental Protection Agency (EPA), less than a quarter (22.3 percent) of the privately owned systems are for-profit water businesses.¹⁶ The rest are non-profit entities or ancillary systems, which are systems that are owned by entities whose primary function is not water provision (for example, manufactured home parks).¹⁷

Overall, for-profit water companies own only about 10 percent of U.S. community water systems.¹⁸ The vast majority of the water systems owned by for-profit companies are small, with about 90 percent serving fewer than 3,300 people.¹⁹

Trends

Nationally, there has been an ongoing shift to public ownership of drinking water services. Between 2007 and 2014, the portion of the population with public water increased from 83 percent to 87 percent (see Table 1).

Over this period, the total number of people served by public systems increased by 10 percent, as public systems added 24 million people to their customer base. Meanwhile, the number of people served by privately owned systems fell by 18 percent, as private companies served 8 million fewer people in 2014 than in 2007 (see Table 1).²⁰

One reason for the trend is that the number of private systems decreased 7 percent (see Table 2). There were nearly 1,700 fewer privately owned systems in 2014 than in 2007. The much larger number of public systems remained fairly stable over this period, increasing by just 99 systems.²¹ Migration from rural to urban settings and different rates of population growth also could contribute to this trend.

Reports by the U.S. EPA identified earlier declines in private water systems. One EPA report noted a decrease

Table 1. People Served by Public, Private and Mixed Ownership of Community Water Systems, 2007 and 2014

| Ownership Type | People Served (Portion of Total) | | Increase or Decrease | % Increase (Decrease) |
|----------------|----------------------------------|----------------------|----------------------|-----------------------|
| | 2007 | 2014 | | |
| Public | 237,634,535 (83.0%) | 261,745,966 (87%) | 24,111,431 | 10% |
| Private | 44,459,100 (15.5%) | 36,338,067 (12%) | -8,121,033 | -18% |
| Public/Private | 4,357,569 (1.5%) | 4,511,784 (1%) | 154,215 | 4% |
| Total | 286,451,204 | 302,595,817 | 16,144,613 | 6% |

Table 2. Number of Public, Private and Mixed-Ownership Community Water Systems, 2007 and 2014

| Ownership Type | Number of Systems (Portion of Total) | | Increase or Decrease | % Increase (Decrease) |
|----------------|--------------------------------------|-----------------|----------------------|-----------------------|
| | 2007 | 2014 | | |
| Public | 25,671 (49%) | 25,770 (51%) | 99 | 0% |
| Private | 25,081 (48%) | 23,395 (46%) | -1,686 | -7% |
| Public/Private | 1,358 (3%) | 1,266 (3%) | -92 | -7% |
| Total | 52,110 | 50,431 | -1,679 | -3% |

in private provision between 2006 and 2008 of about 11 percent.²² Also, the EPA's 2006 Community Water System Survey found a 9 percent decrease in private ownership of water systems from 2000 to 2006, with the biggest drop, percentagewise, coming from larger systems.²³

Municipalization — when local governments buy private systems — is a major reason for the decrease in the number of private systems. Local governments frequently purchase small private systems and combine them with their existing networks.

Accountable Service

Accountability is a major reason why many communities seek public ownership of their water and sewer services. Safe and affordable drinking water and sanitation services are essential, and governments have a basic responsibility to provide these services to protect public health and wellbeing. This entails safeguarding water supplies from pollution and other threats, providing sufficient amounts of safe water and charging water service fees that are affordable.²⁴

When local governments operate water and sewer systems, elected officials make the major policy decisions that determine the cost, availability and quality of these services. They set rates and decide the type and timing of system improvements to address the needs of their constituents.²⁵ If residents object to their service, they can exercise their power at the ballot box by electing officials that are more responsive to their concerns.

Private water companies, in contrast, have no responsibility to promote public health and wellbeing.²⁶ They are accountable first and foremost to their owners and

make their investment decisions based on profitability.²⁷ Because water service is a natural and often legal monopoly,²⁸ if a private water company charges high rates or provides bad service, customers cannot simply switch to another provider. Rather, they are stuck with the company unless they are able to move to another community, which is neither realistic nor desirable for most people.

Affordable Service

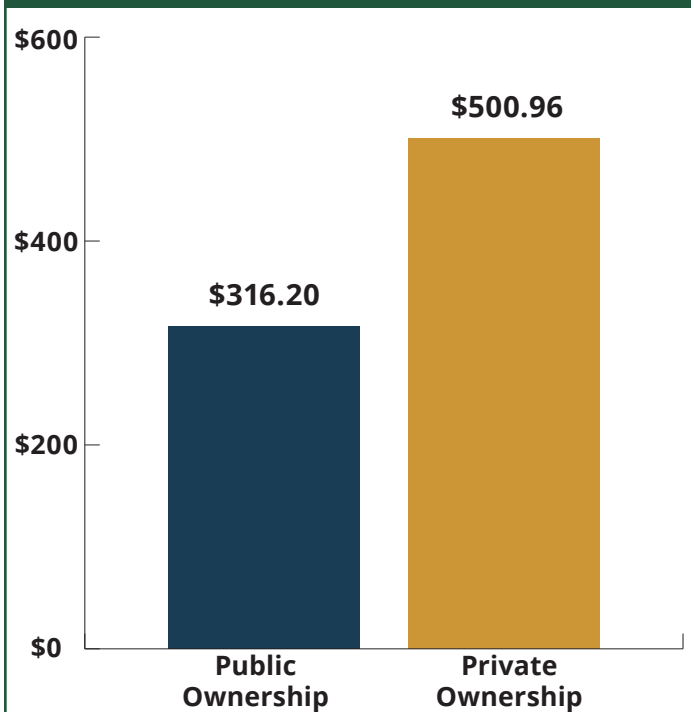
In order to protect public health and wellbeing, local governments must ensure that water service is affordable for every household in a community. With federal support dwindling, water systems aging and the climate changing, achieving universal access to safe water is an increasingly difficult and crucial task for local governments.

Water itself is a priceless common resource, but there is a cost to treating and distributing water to household taps, as well as to collecting and treating the resulting wastewater. With local control over water and wastewater services, a governing body in the local community is able to decide how to allocate the burden of those costs among different users.²⁹ Local governments may subsidize water provision to ensure affordable service for their entire population.³⁰ They could also decide to keep household rates low while charging higher connection fees as a way to promote affordability and discourage sprawling development.³¹

Affordability and accountability go hand in hand. For example, residents can apply political pressure on public officials to keep water rates affordable³² and to implement affordability programs to assist struggling households. With private ownership, residents have little recourse.



Figure 4: Annual Savings With Public Water
Average Annual Water Bills of Households Using
60,000 Gallons a Year From the 500 Largest Water Systems
in the Country, 2015



Water Charges of the 500 Largest Water Systems

An analysis of the 500 largest water systems shows that publicly owned water utilities charge considerably lower rates than their private peers.

Food & Water Watch compiled the rates of the 500 largest community water systems and found that, on average, private, for-profit utilities charged typical households 58 percent more than local governments charged for drinking water service. A typical household, using 60,000 gallons a year, paid \$316 for water service from a local government and \$501 for service from a private company. That is, private ownership corresponds to about \$185 extra each year for the average household (see Figure 4).

Water prices vary across the country, with utilities in the South charging less on average; however, uniformly, private companies had higher prices than government systems (see Figure 5 on page 8). The biggest disparity occurs in the Northeast, where the largest investor-owned utilities are based.

At the state level, the disparities are particularly dramatic in four of the five states with the largest number of private systems (see Figure 6 on page 9).

The survey found that:

- In California, private systems charged 17 percent more than public systems, or an extra \$67 a year.
- In Illinois, private systems charged 95 percent more than public systems, or an extra \$286 a year.
- In New Jersey, private systems charged 79 percent more than public systems, or an extra \$230 a year.
- In New York, private systems charged more than twice as much as public systems, or an extra \$260 a year.
- In Pennsylvania, private systems charged 84 percent more than public systems, or an extra \$323 a year.

Other surveys of water rates and ownership have had similar findings. An analysis of water rates in California cities in 2003 found that private companies charged about 20 percent more on average.³³ A 2010 survey of the largest utilities in the Great Lakes region indicated that private water utilities charged typical households more than twice as much as municipal utilities did.³⁴ A survey of water rates in Delaware and surrounding states showed that, in 2011, investor-owned utilities charged 69 percent more than public utilities.³⁵

U.S. EPA survey data also suggest that privately owned systems charged households higher rates than publicly owned systems, overall and across size categories.³⁶ Indeed, it is widely accepted that private ownership of water systems is associated with higher prices.³⁷

There are a variety of reasons why public water offers customer savings. Most importantly, public entities normally collect only the revenue necessary to improve and run their water systems. Privately owned utilities, however, generate profit by increasing rates. Other factors that make private water more costly for customers include: executive compensation, corporate overhead, subsidies, financing costs, rights of way, and differences in rate-making and financing practices.³⁸

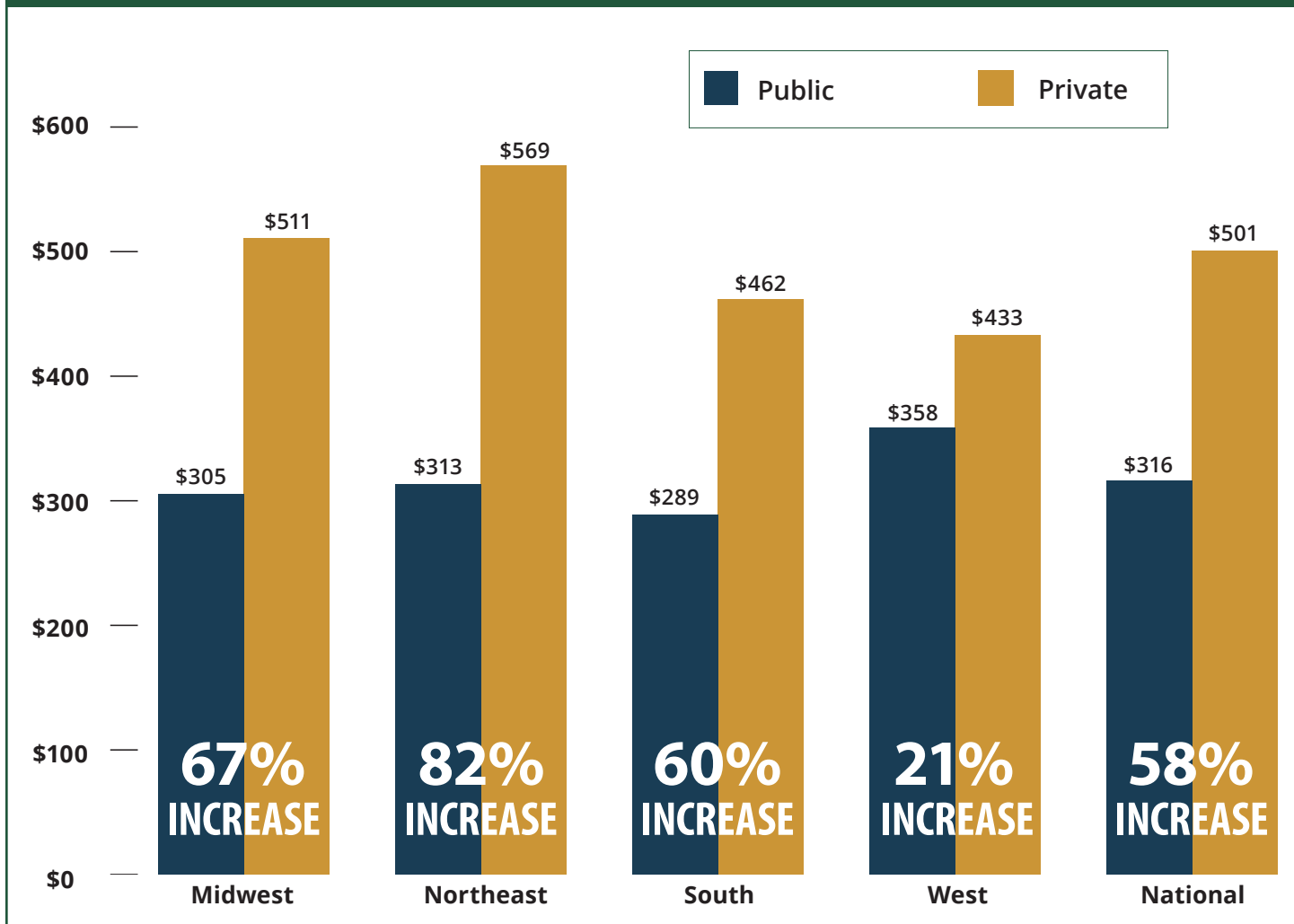
Equitable Service

Because they are directly accountable to their residents, publicly owned utilities generally are more concerned than private entities about issues of social equity.⁴⁰ Public ownership also is more equitable because it provides customers with clearer legal protections from discrimination, given that the Equal Protection Clause applies only to “state action.”⁴¹

Private companies often steer clear of economically depressed and struggling areas that are less profitable. As

Figure 5: Average Annual Water Bill 2015

For Households Using 60,000 Gallons a Year Based on the 500 Largest Community Water Systems



NOTE: See Appendix for methodology and details.

a result, they generally avoid small and rural communities where household income is low or where water quality problems are significant. They typically target a small system only if it is near their existing infrastructure network and they can take advantage of economies of scale.⁴²

Environmentally Responsible Service

A public entity also can be more responsive to its customers — its voters — when it comes to environmental concerns and goals.⁴³

Watershed Protection

Water utilities must work to safeguard their watershed and water supplies from drilling, fracking and coal mining, pipeline spills and oil train accidents, irresponsible logging practices and other disruptive impacts.⁴⁴ Because they are

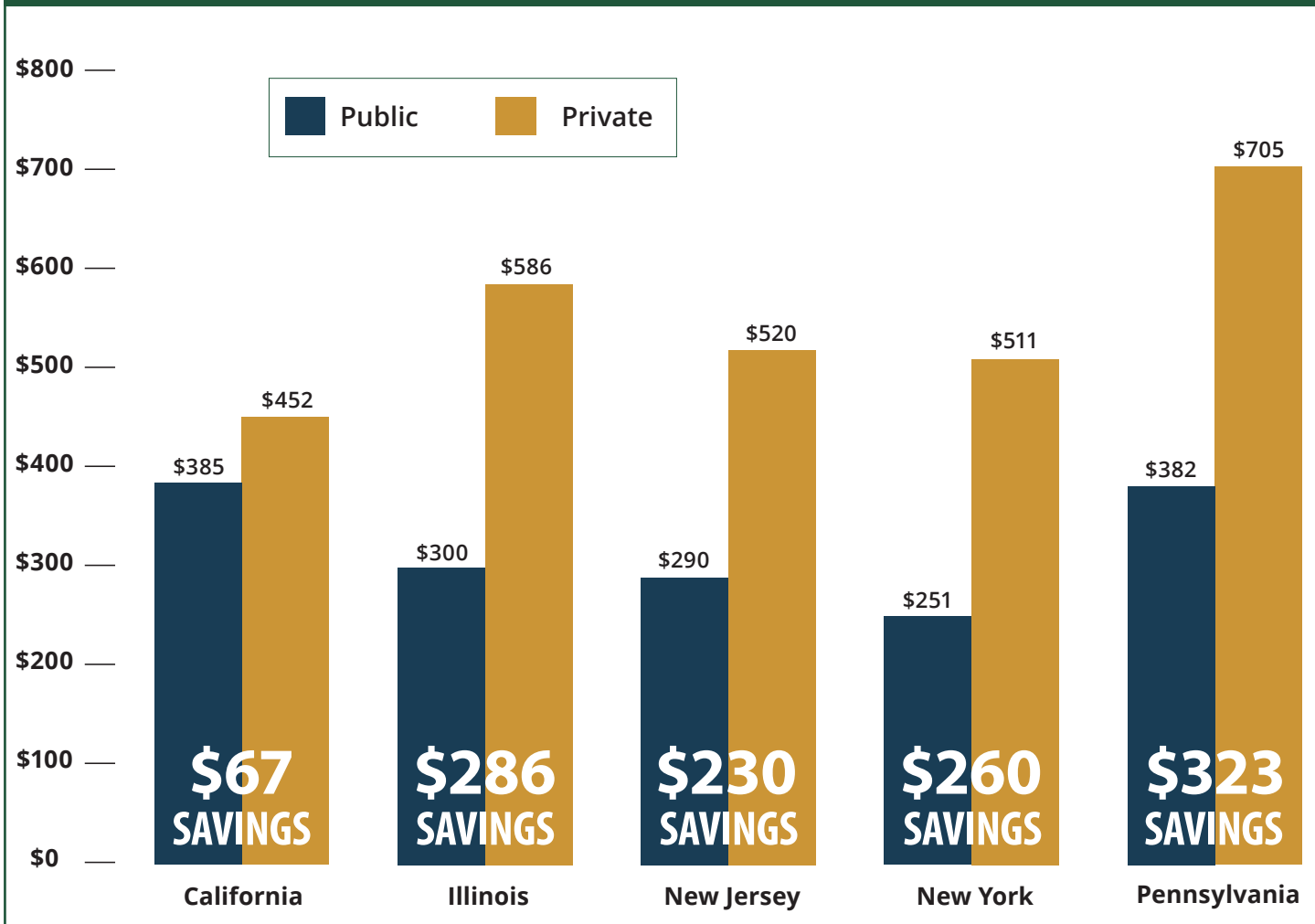
a natural buffer from pollution, forests and open lands protect water supplies, improve water quality and reduce drinking water treatment costs in manifest ways.⁴⁵ Public sector utilities that have strong citizen engagement tend to have stronger watershed protections.⁴⁶

Some private companies have sold land protecting water supplies to developers.⁴⁷ In the 1980s, United Water transferred about 600 acres of land, originally acquired to protect the water supply in Bergen County, New Jersey, to its real estate development subsidiary, which planned to resell the land to developers for substantial profits.⁴⁸

Local governments also have paid the costs of private mismanagement. The city of Willits, California bought its water utility and watershed lands from a private firm in 1984, only to find that the company had failed to make required investments in the water system when it logged the valuable old timber from the land. The city's water

Figure 6: Public Savings Vary by State

Average Annual Water Bills in 2015 for Households Using 60,000 Gallons/Year



system was failing, had many water quality problems and needed a new treatment plant, in large part because of the private company's financial neglect and logging activities.⁴⁹

Water Conservation

Research from California shows that, compared to private water utility companies, publicly owned water utilities more actively encourage and promote water conservation.⁵⁰ Private water systems in California have typically waited for the state to mandate conservation before taking action during droughts.⁵¹

Local Planning and Smart Growth

Public ownership of water and sewer systems allows local governments to direct and plan economic growth and development.⁵² A local governing body decides on capital improvements and extensions to new areas.⁵³ It can coordinate the extension of water and sewer lines to reduce

costs or to serve areas with contaminated private wells or that lack adequate fire service.⁵⁴

Public ownership of water systems is necessary to promote smart growth. Sprawling development can harm the water supply because it changes the natural landscape. When rain hits hard pavement, less of it filters naturally into the ground to recharge the underground aquifers that supply water to wells and often connect to rivers, lakes and streams. Instead, the rainwater can be diverted into storm drains and discharged into surface waters.⁵⁵ Overall, this can strain local drinking water sources that rely on groundwater, and it can lead to sewer overflows when stormwater overwhelms wastewater collection systems.⁵⁶

Private water companies make money on costly sprawling systems, and real estate developers frequently partner with them to serve new satellite developments.⁵⁷ Munic-

ipal systems can also have policies that protect residents from paying to extend service outside the municipal limits to new developments, while private companies often force their customers to subsidize new development.⁵⁸

More broadly, local public control of water utilities is often necessary for successful planning that protects natural resources in that region.⁵⁹ Private ownership of water utilities can complicate and interfere with planning activities. There is no built-in incentive to cooperate with neighboring municipalities and government agencies in protecting water resources, managing watersheds, or working on affordability, equity and sustainability.⁶⁰

Effective Service

Local government water and sewer departments typically work together to reduce costs and share resources. Cities may use wastewater trucks to remove snow or conduct other government tasks, and water department employees may help with emergency preparations for intense storms. Private contractors and utilities, in contrast, have no incentive to share equipment and worker hours.⁶¹

In addition to pooling resources, water and sewer utilities often coordinate with other city departments around transportation projects, urban planning efforts and fire safety, all to more effectively and efficiently protect public

Top Ten Most and Least Expensive Water Systems

Top Ten Most Expensive Water Providers as of January 2015

| Rank | Entity | State | Service Population | Ownership | Annual Bill |
|------|------------------------------------|-------|--------------------|-----------|-------------|
| 1 | Flint ^a | MI | 124,943 | Public | \$864.32 |
| 2 | Bellevue | WA | 235,149 | Public | \$855.25 |
| 3 | Padre Dam Municipal Water District | CA | 96,589 | Public | \$826.94 |
| 4 | American Water – West | PA | 93,368 | Private | \$792.84 |
| 5 | American Water – Pittsburgh | PA | 516,411 | Private | \$792.84 |
| 6 | American Water – Lake Scranton | PA | 134,570 | Private | \$792.84 |
| 7 | American Water – Norristown | PA | 94,724 | Private | \$792.84 |
| 8 | Aqua America – Main | PA | 784,939 | Private | \$782.38 |
| 9 | Goleta Water District | CA | 87,000 | Public | \$736.62 |
| 10 | American Water – Monterey | CA | 94,700 | Private | \$716.18 |

Top Ten Least Expensive Water Providers as of January 2015

| Rank | Entity | State | Service Population | Ownership | Annual Bill |
|------|-------------------------------|-------|--------------------|-----------|-------------|
| 491 | Toho Water Authority | FL | 110,102 | Public | \$123.96 |
| 492 | Memphis | TN | 671,450 | Public | \$120.71 |
| 493 | Medford Water Commission | OR | 90,932 | Public | \$117.84 |
| 494 | Hagerstown | MD | 88,000 | Public | \$116.48 |
| 495 | Miami-Dade | FL | 2,100,000 | Public | \$116.46 |
| 496 | Jefferson Parish – District 1 | LA | 308,362 | Public | \$104.40 |
| 497 | Jefferson Parish – District 2 | LA | 209,972 | Public | \$104.40 |
| 498 | Hempstead | NY | 110,000 | Public | \$101.74 |
| 499 | Clovis | CA | 102,499 | Public | \$100.80 |
| 500 | Phoenix | AZ | 1,500,000 | Public | \$84.24 |

a When the survey was conducted in January 2015, Flint, Michigan had the most expensive water service in the country, but during August 2015, a judge ruled that certain rate increases were unlawful and ordered the city to reduce its rates by 35 percent and to end a service fee.³⁹

Note: Annual bills were calculated for households using 60,000 gallons of water a year.

health, safety and welfare.⁶² For example, cities can time water main repairs before road repairs to avoid having to repave roads again after digging up water lines.

In recent years, cities such as Kyle, Texas and Fort Worth, Indiana have sought local public control of water systems to improve water quality and supplies. Expensive, low-quality water and bad service can scare away new businesses and hurt economic development,⁶³ while insufficient water supplies and pressure can put public safety at risk.⁶⁴

Ways Forward

Publicly owned water systems provide the most affordable and equitable service. Government utilities are directly accountable to the people they serve, and they have a fundamental responsibility to promote and protect public health and safety. They are generally more responsive to their community's specific needs and environmental goals, and can best coordinate among different government divisions to achieve gains in public health and welfare.

Public water utilities can further improve their services by:

- Enhancing public input through open and transparent procedures that encourage stakeholder involvement;
- Boosting in-house expertise through targeted hiring, reducing contracting and investing in job training for current staff;

- Implementing water affordability programs that provide credits to low-income households, adjusting their water bills to a level that they can afford to pay;
- Working to ensure source water protection locally and regionally;
- Maximizing services and reducing costs through greater coordination among their departments; and
- Sharing resources and expertise through public-public partnerships with other public sector, labor and non-profit entities.

Our local water systems should not have to go it alone. The federal government has a responsibility to ensure that our local public water and sewer systems receive the support they need. Communities across the country need a dedicated source of federal funding for our water systems to improve water quality, protect the environment, create good jobs and ensure safe, reliable water for generations to come.

With a renewed federal investment in our water resources, robust, responsive and responsible public utilities can best meet the needs of communities and ensure safe and affordable water for all.

Appendix A: Rate Survey State Details

Average Annual Household Water Bills, as of January 2015

Based on the 500 Largest Community Water Systems in the United States and Assuming 60,000 Gallons a Year per Household

| Region and State | System Ownership | | Increase Under Private | |
|----------------------|------------------|-----------------|------------------------|------------|
| | Public | Private | Amount | Percent |
| Midwest | \$305.34 | \$511.05 | \$205.71 | 67% |
| Illinois | \$300.31 | \$586.33 | \$286.02 | 95% |
| Indiana | \$267.04 | \$407.67 | \$140.63 | 53% |
| Iowa | \$270.87 | \$468.75 | \$197.88 | 73% |
| Kansas | \$364.50 | | | |
| Michigan | \$323.47 | | | |
| Minnesota | \$236.49 | | | |
| Missouri | \$357.76 | \$422.41 | \$64.65 | 18% |
| Nebraska | \$224.32 | | | |
| North Dakota | \$255.00 | | | |
| Ohio | \$302.81 | \$519.52 | \$216.71 | 72% |
| South Dakota | \$320.34 | | | |
| Wisconsin | \$246.45 | | | |
| Northeast | \$313.12 | \$569.35 | \$256.23 | 82% |
| Connecticut | \$343.02 | \$459.27 | \$116.25 | 34% |
| Maine | \$246.12 | | | |
| Massachusetts | \$297.28 | | | |
| New Hampshire | \$358.59 | | | |
| New Jersey | \$290.01 | \$519.92 | \$229.91 | 79% |
| New York | \$251.05 | \$510.56 | \$259.51 | 103% |
| Pennsylvania | \$382.31 | \$705.00 | \$322.69 | 84% |
| Rhode Island | \$371.78 | | | |
| South | \$288.89 | \$461.71 | \$172.82 | 60% |
| Alabama | \$284.87 | | | |
| Arkansas | \$265.70 | | | |
| Delaware | \$375.42 | \$542.85 | \$167.43 | 45% |
| District of Columbia | \$420.12 | | | |
| Florida | \$292.44 | | | |
| Georgia | \$306.27 | | | |
| Kentucky | \$365.06 | \$478.71 | \$113.65 | 31% |
| Louisiana | \$187.39 | \$277.85 | \$90.45 | 48% |
| Maryland | \$228.73 | | | |
| Mississippi | \$257.47 | | | |
| North Carolina | \$287.71 | | | |

Average Annual Household Water Bills, as of January 2015 *(continued)*

| Region and State | System Ownership | | Increase Under Private | |
|--------------------|------------------|-----------------|------------------------|------------|
| | Public | Private | Amount | Percent |
| South | \$288.89 | \$461.71 | \$172.82 | 60% |
| Oklahoma | \$296.94 | | | |
| South Carolina | \$203.16 | | | |
| Tennessee | \$303.65 | \$316.57 | \$12.92 | 4% |
| Texas | \$290.04 | | | |
| Virginia | \$317.89 | \$297.48 | -\$20.41 | -6% |
| West Virginia | | \$710.63 | | |
| West | \$358.31 | \$433.06 | \$74.75 | 21% |
| Alaska | \$606.48 | | | |
| Arizona | \$247.45 | \$285.23 | \$37.78 | 15% |
| California | \$385.50 | \$452.25 | \$66.75 | 17% |
| Colorado | \$301.41 | | | |
| Hawaii | \$343.08 | | | |
| Idaho | | \$254.78 | | |
| Montana | \$273.26 | | | |
| Nevada | \$428.22 | | | |
| New Mexico | \$261.94 | | | |
| Oregon | \$298.15 | | | |
| Utah | \$231.50 | | | |
| Washington | \$406.51 | | | |
| Grand Total | \$316.20 | \$500.96 | \$184.77 | 58% |

Note: None of the 500 largest community water systems was located in Vermont or Wyoming.

The survey compared the residential water prices of investor-owned utilities and local government-owned utilities.

Identifying the Largest Systems. Using the U.S. EPA's Safe Drinking Water Federal Information System, frozen in October 2013, the 500 largest community water systems were identified as the systems serving the largest number of people.

Exclusions. Systems were excluded if they were primarily bulk water sellers (systems serving large populations but fewer than 100 customers), if they were Federal or Native American-owned systems and if they were not located in U.S. states and the District of Columbia. Three systems were private, non-profit entities, and, although their rates were collected, they were excluded from the rate analysis.

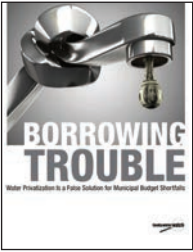
Data Collection. During January 2015, system water rates were compiled from utility websites and local government ordinances, if available. In three cases, the rates were not found online, and they were found by calling the utility's customer service line. All source documents are on file with Food & Water Watch.

Household Bill Calculations. Annual water bills were calculated assuming that a typical household uses about 60,000 gallons or 80.2083 hundred cubic feet a year of indoor water. For systems with water budgets, all water use was assumed to be indoor usage. Seasonal rates were weighted to arrive at an annual average. Rates were calculated for the main service division or inside jurisdiction. The annual bill includes special water-related fees and surcharges, and public fire protection charges if those fees were charged to all households (excluding private fire service protection lines and hydrants).

Endnotes

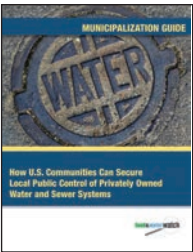
- 1 Spar, Debora and Bebenek Krzysztof. "To the tap: Public versus private water provision at the turn of the twentieth century." *Business History Review*. Vol. 83, Iss. 4. Winter 2009 at 689 to 697; Arnold, Craig Anthony. "Privatization of public water services: The states' role in ensuring public accountability." *Pepperdine Law Review*. Vol. 32, Iss. 3. 2005 at 567 to 569.
- 2 Salzman, James. "Thirst: A Short History of Drinking Water." *Duke Law School Faculty Scholarship Series*. January 2006 at 19 to 20; Spar and Krzysztof, 2009 at 693 to 694.
- 3 JPMorgan Chase & Co. [Brochure]. "The History of JPMorgan Chase & Co." 2008 at 2.
- 4 Salzman, 2006 at 19 to 20.
- 5 Fauconnier, Isabelle. "The privatization of residential water supply and sanitation services: Society equity issues in the California and international contexts." *Berkeley Planning Journal*. Vol. 13. 1999 at 51 to 53; Arnold, 2005 at 568 to 569.
- 6 Troesken, Werner. "Regime change and corruption: A history of public utility regulation." In National Bureau of Economic Research. Glaeser, Edward L. and Claudia Goldin (eds.). (2006). *Corruption and Reform: Lessons from America's Economic History*. University of Chicago Press at 274.
- 7 *Ibid.* at 274.
- 8 Spar and Krzysztof, 2009 at 689.
- 9 Troesken, 2006 at 274.
- 10 *Ibid.* at 274 to 275.
- 11 Troesken, Werner. "Race, disease, and the provision of water in American cities, 1889-1921." *Journal of Economic History*. Vol. 61, No. 3. September 2001 at 773 to 774.
- 12 *Ibid.* at 763.
- 13 U.S. Environmental Protection Agency (EPA). Safe Drinking Water Federal Information System. FY2014 Inventory Data. June 30, 2014; U.S. Government Accountability Office. "Wastewater Infrastructure Financing: Stakeholder Views on a National Infrastructure Bank and Public-Private Partnership." (GAO-10-728). June 2010 at 5; Maxwell, Steve. "The water industry: a closer look at the numbers." *Journal AWWA*. Vol. 103, Iss. 5. May 2011 at 20.
- 14 U.S. EPA, 2014.
- 15 *Ibid.*
- 16 U.S. EPA. "2006 Community Water System Survey: Volume 1." (EPA 815-R-09-001). February 2009 at 8 to 9.
- 17 *Ibid.* at 8 to 9 and 42.
- 18 Food & Water Watch calculations based on U.S. EPA, 2014; U.S. EPA, 2009 at 9.
- 19 U.S. EPA, 2009 at 15.
- 20 Food & Water Watch calculations based on data from U.S. EPA, 2014; U.S. EPA. Safe Drinking Water Information System – Federal Version (SDWIS/FED). Public Water System Inventory data. October 2007.
- 21 Food & Water Watch calculations based on data from U.S. EPA, 2014; U.S. EPA, 2007.
- 22 U.S. EPA, Office of Water. "National Characteristics of Drinking Water Systems Serving 10,000 or Fewer People." (EPA 816-R-10-022). July 2011 at 6 and A-7.
- 23 U.S. EPA, 2009 at 11 to 12.
- 24 Hardberger, Amy. "Whose job is it anyway? Governmental obligations created by the human right to water." *Texas International Law Journal*. Vol. 41. 2006 at 539 to 541; Fauconnier, 1999 at 59 to 60; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*. Cause No. DV-14-352. "Findings of Fact, Conclusions of Law and Preliminary Order of Condemnation." (Mont. Dist. 4, 2015) at 48.
- 25 Urban Futures, Inc. Prepared for the Town of Apple Valley (CA). "Financial Feasibility Analysis for the Acquisition of the Apple Valley Ranchos Water System." February 11, 2014 at 42 to 43.
- 26 Fauconnier, 1999 at 59 to 60; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 48.
- 27 Smith, Harold. "Overview of Delivery Methods." In Raftelis, George, A. (Ed.). (2005). *Water and Wastewater Finance and Pricing: Third Edition*. Boca Raton, FL: Taylor & Francis at 119; Beecher, Janice A. "Private water and economic regulation in the United States." In Bausch, Andreas and Burkhard Schwenker (Eds.). (2009). *Handbook Utility Management*. Berlin: Springer at 794; Beecher, Janice A. et al. National Regulatory Research Institute. "Regulatory Implications of Water and Wastewater Utility Privatization." (NRRI 95-09). July 1995 at 30; Task Force on Privatization of Washington Suburban Sanitary Commission. "Task Force Final Report and Recommendations." November 1999 at Table 3-7 at 4 to 5 and 3-52; Fauconnier, 1999 at 60; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 48.
- 28 Arnold, 2005 at 580; Beecher, 2009 at 791 and 798 to 799; Beecher, 1995 at 19 to 20.
- 29 Urban Futures, 2014 at 42 to 43; Beecher, 2009 at 789.
- 30 Fauconnier, 1999 at 59.
- 31 Urban Futures, 2014 at 42 to 43; Beecher, 2009 at 789.
- 32 Arnold, 2005 at 584.
- 33 Houtsma, John. Department of Economics. Mount Allison University. "Water Supply in California: Economies of Scale, Water Charges, Efficiency and Privatization." Presented at 43rd Congress of European Regional Science Association. Jyväskylä, Finland. August 27-30, 2003 at Abstract #379 at 8.
- 34 Beecher, Janice A. and Jason A. Kalmbach. Michigan State University, Institute of Public Utilities. "2010 Great Lakes Water Survey." February 1, 2011 at Exhibit 11 on 14.
- 35 University of Delaware, Water Resources Agency, Institute for Public Administration. "Water Rates in Delaware and Surrounding States." (Draft). September 2014 at 2.
- 36 U.S. EPA, 2009 at 21 to 23.
- 37 Beecher, 2009 at 788 to 799; Shih, Jhieh-Shyang et al. "Economies of scale in community water systems." *Journal AWWA*. September 2006 at 107; Beecher, 1995 at 103.
- 38 Beecher and Kalmbach, 2011 at 15 to 16; National Research Council. (2002). *Privatization of Water Services in the United States*. Washington, D.C.: National Academy of Science at 51 to 52; U.S. EPA. "Response to Congress on Privatization of Wastewater Facilities." (EPA 832-R-97-001a). July 1997 at 25; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 29; Beecher, 1995 at 103; Beecher, Janice A. "What matters to performance? Structural and institutional dimensions of water utility governance." *International Review of Applied Economics*. Vol. 27, Iss. 2. April 2013 at 156.
- 39 Fonger, Ron. "Judge orders Flint to cut water rates 35 percent in sweeping injunction." *Michigan Live*. August 7, 2015.
- 40 Arnold, 2005 at 597.
- 41 *Ibid.* at 599.
- 42 Klappauf, Laurie. "Privatization raises both questions and opportunities." *Water Sense*. Vol. 3, Iss. 3. Summer 1997 at 5 to 6; "Investors own private systems." *Water Sense*. Vol. 3, Iss. 3. Summer 1997 at 12 to 13; U.S. General Accounting Office. "Water infrastructure: Information on financing, capital planning, and privatization." (GAO-02-764). August 2002 at 51 to 52; Beecher, 1995 at 31.
- 43 Arnold, 2005 at 591.
- 44 Herbert, Elizabeth. "Forest management by West Coast water utilities: Protecting the source?" *Journal AWWA*. Vol. 99, Iss. 2.

- February 2007 at 91 to 92; See Food & Water Watch. "The Urgent Case For a Ban on Fracking." February 2015.
- 45 Fischer, Richard A. et al. "Improving Riparian Buffer Strips and Corridors for Water Quality and Wildlife." American Water Resources Association. International Conference on Riparian Ecology and Management in Multi-land Use Watersheds. August 2000 at 2; Wenger, Seth J. and Laurie Fowler. Carl Vinson Institute of Government. The University of Georgia. "Protecting Stream and River Corridors: Creating Effective Local Riparian Buffer Ordinances." Public Policy Research Series. 2000 at 4 and 48 to 49.
- 46 Herbert, 2007 at 104 to 105.
- 47 Spencer, Louisa C. "A vote for legislation to save Bergen County's watershed." *The Record*. April 25, 1991; Arnold, 2005 at 591 to 592.
- 48 Hanley, Robert. "Utility selling watershed area for large profits." *New York Times*. August 5, 1987.
- 49 Herbert, 2007 at 99.
- 50 Kallis, Giorgos et al. "Public versus private: Does it matter for water conservation? Insights from California." *Environmental Management*. Vol. 45. 2010 at 177 to 178.
- 51 *Ibid.* at 178.
- 52 Beecher, 1995 at 31 and 81 to 83; Hardy, Robert B. and John Munderloh. Statewide Water Advisory Group. "Yavapai County Water." June 2, 2006 at 11 and 21.
- 53 Urban Futures, 2014 at 42 to 43.
- 54 Richards, Brannon et al. "Purchase and Acquisition of a Private Utility System." Paper presented at NC AWWA-WEA 90th Annual Conference, Winston-Salem, NC, November 14-17, 2010 at 2, 4, 6 and 8 to 9; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 52 and 53; Menon, Kumar and Adam O'Connor. "We'll drink to that: Transition to city utilities complete." *Journal-Gazette* (Fort Worth, Indiana). October 12, 2015.
- 55 U.S. EPA, Nonpoint Source Control Branch. "Protecting Water Quality from Urban Runoff." (EPA 841-F-03-003). February 2003.
- 56 Brown, Ann et al. Sierra Club. "Sprawl: The Dark Side of the American Dream." 1998 at 4 to 5.
- 57 For more information, see Food & Water Watch. "Water and sewer privatization contributes to sprawl." January 2010.
- 58 *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 41; Beecher, 2009 at 788.
- 59 Arnold, 2005 at 591 to 593; Boland, John H. "The business of water." *Journal of Water Resources Planning and Management*. Vol. 133, Iss. 3. May/June 2007 at 191; Beecher, 1995 at 30 at 31.
- 60 Arnold, 2005 at 592 to 593; Boland, 2007 at 189 to 191.
- 61 Association of Metropolitan Sewerage Agencies and Association of Metropolitan Water Agencies. "Evaluating Privatization II: An AMSA/AMWA Checklist." 2002 at 23.
- 62 Hoffbuhr, Jack W. "Take your fire chief to lunch." *Journal of the American Water Works Association*, Vol. 95, Iss. 12. December 2003 at 6; Association of Metropolitan Sewerage Agencies and Association of Metropolitan Water Agencies, 2002 at 23; *Missoula v. Mountain Water Co. and Carlyle Infrastructure Partners*, 2015 at 24, 53, 63 to 64.
- 63 Hilsenbeck, Kim. "Kyle offers water option for Monarch customers." *Hays Free Press* (Kyle, Texas). August 1, 2012.
- 64 Menon and O'Connor, 2015.



Borrowing Trouble: Water Privatization Is a False Solution for Municipal Budget Shortfalls

The 2008 global financial crisis left many governments around the world with serious fiscal challenges, and a number of public officials across the globe sought to lease or sell public water and sewer systems to fund ongoing government functions or to pay down liabilities. The government's primary objective in these privatization arrangements is to obtain a sizable upfront payment from the company or consortium that takes over the water or sewer system, often as a desperate response to a fiscal crisis. But this money is not free; rather, it should be thought of as a loan. Residents and local businesses will have to repay it, with interest, through their water bills.



Water Municipalization Guide

Many communities across the country want local public control of their water and sewer services. Municipalization — the purchase of a privately owned system by a local government — is a fairly common occurrence, but for communities unfamiliar with it, the process could appear daunting. This guide provides an overview of the process and a number of logistical considerations involved in government purchases of privately owned water and sewer systems. Although the general procedure is similar, the specifics will vary by situation, partly because every state has its own legal and regulatory framework.



Aqua America: A Corporate Profile

Aqua America focuses on buying water systems and hiking water prices. It typically purchases small water and sewer systems in areas near its existing network. In addition to owning systems, the company operates a handful of local government-owned systems, but it uses those deals as a way to build its reputation and to get a foot in the door on a possible acquisition of the systems. After taking over and building out its systems, the company seeks to increase water rates. The ability to hike consumer bills is the key to its earnings.



American Water: a Corporate Profile

American Water Works Company is the largest publicly traded U.S. water utility company, serving approximately 14 million people in more than 30 states and two Canadian provinces. American Water has come under fire from communities across the country for charging high rates, providing poor service, endangering public safety and lacking public accountability. From Birmingham, Alabama, in the 1950s to Felton, California, in 2008, communities across the country have wrested local control of their water systems from American Water.

Food & Water Watch



National Office

1616 P Street, NW

Suite 300

Washington, DC 20036

(202) 683-2500

foodandwaterwatch.org