

# Privatizing U.S. Water

## INTRODUCTION

Over the past decade there has been a growing concern regarding the quality of the water that Americans get from their taps. Incidents such as the *Cryptosporidium* outbreak in Milwaukee in 1993 that sickened about 400,000 people and killed more than 50 have contributed to the perception that there is a significant decline in tap water quality.<sup>1</sup>

The single most important factor behind the deterioration in tap water quality, wherever it has taken place, is the decline in the water services infrastructure. Government resources available for water sector investment have been far below what is needed for a well-maintained public system. Almost a century old in places, the U.S. water system is in need of replacement or repairs.

In our everyday lives, one response has been increasing dependence on bottled water. This is ironic because tap water still remains much better regulated than bottled water. As a landmark 1999 Natural Resource Defense Council study suggests, bottled water is not required to meet the federal regulatory standards (Environmental Protection Agency) on safe drinking water and causes far greater environmental problems.<sup>2</sup>

This paper is part of an ongoing attempt to assess the privatization of water services as a governmental response to the decline in water services infrastructure, particularly in the U.S. It suggests that rather than allocating public funds for investing in public water systems, local governments have removed legal and regulatory restrictions that prohibit private operation of publicly owned utilities.<sup>3</sup> As a result, the 1990s saw increased dependence on private sector water services and related investments. The pace of private investment has further increased since 2000. This is also a global trend, particularly in middle- and low-income countries where it is promoted primarily by powerful international financial institutions.

This paper is divided into three sections. The first section provides a survey map of privatized water utilities in the U.S. The survey identifies the main national and international

corporations and investor-owned utilities involved in the U.S. water sector. And it stresses the difficulty of monitoring such actors, since they are not required to be as transparent as publicly owned utilities. The second section looks at how the investment gap in water-related services emerged, and how this changed the context for private sector investment. The third section examines the specific form that private sector investment has taken. In particular, we stress how multinationals dominated the process of privatization until very recently, and how global trends influenced the multinationals' roles in the U.S.

## BACKGROUND

This may be a particularly significant moment in the history of private sector involvement in public water provision. RWE, formerly the world's third-largest water multinational and the largest operator in the U.S., announced recently its decision to disinvest from its water business.<sup>4</sup> But we are also seeing growing investor interest in the water business as the perception of an investment gap grows. Several governmental initiatives have made it easier for private utilities to acquire other smaller utilities or enter into public/private partnerships, and help tap this investor interest. For example, the 1996 Safe Drinking Water Act (SDWA), has specific provisions that "require the consideration of structural alternatives that involve fundamental changes to the organization, ownership, or management of a water system, including regionalization and consolidation."<sup>5</sup> Similarly, "some analysts believe that GASB 34 [Rule 34 of the Governmental Accounting Standards Board] will stimulate privatization activity in the water sector because it will provide clear incentives for improving asset management through private sector expertise."<sup>6</sup> And while indiscriminate and multinational-led water privatization has come under critical scrutiny around the world, in the U.S., and elsewhere, there continue to be initiatives that may result in privatizing the drinking water supply. It will be particularly important to monitor this development in the coming months and years.

By providing systematic information about how the privatization of public water utilities is taking place, we seek to further the debate about whether such privatization is appropriate and what alternatives are available to us. Through its General Com-



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ment 15 in 2002, the United Nations recognized water as a human right. The General Comment, while not mandatory, provides guidelines that member-states could follow to ensure that people have affordable access to safe water. As a basic right, water must be universally available, of good quality, and affordable. Historical experience suggests that private corporations are more likely to fall short of these parameters than the public sector. For example, private water companies that had dominated the U.S. water supply for most of the 19th century were unable to make universal access to clean water a reality, and cities were ravaged by epidemics. Our research also suggests that private water companies are far less transparent about their operations, making it difficult to monitor their performance.

Recent experiences privatizing water services in the Global South have been negative too. From Cochabamba to Manila, from El Alto to Soweto, people experienced one or more of the following: price hikes, water quality deterioration, water cut-offs, cholera outbreak or indirect appropriation of water away from other livelihood needs such as subsistence agriculture. In the United States, cities such as Atlanta have had negative experiences with privatization.<sup>7</sup> These shared experiences have helped build a vibrant international movement that connects local and international activists who oppose privatization and upholds the principle of right to water by addressing issues of equity, efficiency and environmental health.

The shortcomings of privatization of public water utilities suggest the need to formulate innovative strategies for meeting the necessary substantial public investment in water services. If such investment occurs, it will to a great extent address widespread concerns about public water quality in the United States. If it can also address equity concerns (as a recent initiative in Detroit did) and efficiency, it can further bolster consumer confidence in public utilities.<sup>8</sup> This may partially help reverse the trend toward increasing dependence on bottled water uses, one of the most resource-intensive and ecologically wasteful ways of meeting drinking water needs.

## **SURVEY OF U.S. WATER PRIVATIZATION**

Based on statements in the international and domestic context, the U.S. government appears to view access to water as a need, rather than a right. This recognition, though relatively limited (compared to, say, South Africa, where it is a constitutionally guaranteed right), still means that the government is responsible for ensuring that public interests are met. For example the Safe Drinking Water Act clearly states it is the responsibility of the public water system to provide “safe” drinking water and comply with the National Interim Primary Drinking Water Regulations (NIPDWR).<sup>9</sup>

Water must also be universally available and affordable. Historically, as the discussion in the next section indicates, private corporations are more likely to fall short of expectations than the public sector based on these parameters.

According to the 2000 Census, more than 99 percent of the U.S. population has access to potable water and modern sanita-

tion.<sup>10</sup> About 90 percent of the U.S population gets its water from a public-supply system.<sup>11</sup> Most live in urban centers, where the city/county water department is responsible for delivering it. While earlier most of the investments came from federal and state funds, in the past decade many cities have sought private sector investments to meet this responsibility. This shift was facilitated in the 1990s under the first Bush administration and later the Clinton administration by the removal of regulatory and legal restrictions that had previously prohibited private operation of publicly owned utilities.<sup>12</sup>

The U.S. has been identified as one of the largest water markets in the world. How to make use of this new opportunity has been the focus of many corporations doing business in the water sector. For example, in 2005, The Wall Street Transcript organized a conference titled “Profiting in the Water Industry: Tapping a reservoir of wealth.” The conference reported that in the U.S. alone the water industry was expected to grow 7 percent a year to \$150 billion. The announcement promised participants an opportunity to discover investment opportunities as well as help in identifying the most promising and profitable niches in the \$150 billion water industry.<sup>13</sup>

Earlier this year, IATP initiated a national-level survey on the privatization of U.S. water utilities. We contacted public utility commissions in every state to get a list of private operations, if there were any. We did Internet research to bolster that information, in addition to following up with each private utility to make sure the information was up to date.

The survey explored the extent that drinking water supply and wastewater services in the United States are run by transnational and national corporations. The results of our survey, searched easily by state on our user-friendly map, are available at <http://www.tradeobservatory.org/waterprivatization/>.

## **RESEARCH FINDINGS<sup>14</sup>**

The primary objective of this survey is to track changes in the ownership of our water systems. The following information provides a brief synopsis of the data presented on the map. The information here is the best we could find at the time of conducting the research. Any inaccuracies speak to the difficulty in keeping on the trail of a national or multinational corporation often making changes to its operations. Private water companies are more often than not hesitant to provide accessible information about their operations. In doing research, we found company representatives to be on the defensive about our questions, even though these questions were non-provocative. It was extremely difficult to find more information even when we dug hard for it. Thus, some of the information from this survey may be incomplete. In an attempt to continually monitor the privatization of water utilities, we hope to update this Web site regularly. We look forward to getting your help in doing this.

Our survey found that the late 1990s saw the privatization of water services taking a stronger hold in the United States. In the 43 states that have private water companies operating within them, almost 600 cities now hold a contract with a pri-

vate water company, while 20 cities have more than one private company operating within the city limits.

The survey found that states that have the highest numbers of cities with private water company contracts include California (100 cities), New Jersey (66 cities), Pennsylvania (63 cities), New York (46 cities) and Illinois (33 cities), and together these five states account for more than half the total.

In California, where water privatization is most extensive, there are several national and multinational water companies in operation.<sup>15</sup> Golden State Water Company, a subsidiary of American States Water Company, has the strongest hold in California.

With one significant exception (Veolia Water North America, subsidiary of Veolia Environment; [www.veoliaenvironnement.com/en/](http://www.veoliaenvironnement.com/en/)), most companies do not offer much information about their contracts. American States Water Company provides little information on its Web site ([www.aswater.com](http://www.aswater.com)) or when contacted about the types of contracts with cities of operation. Similarly, neither RWE ([www.rwe.com](http://www.rwe.com)) nor Suez ([www.suez.com](http://www.suez.com)) divulged much information on their contract agreements.<sup>16</sup> We found AIG (American International Group) and Bechtel, while not significant players, to be least more open.

Currently, the largest publicly traded water company in the United States is Aqua America. It is based in Philadelphia and operates in 13 states (Florida, Illinois, Indiana, Maine, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas and Virginia and Kentucky). There is little information on its Web site,<sup>17</sup> and when contacted the company would not provide any information “other than what is available on our Web site.” In 2005, Aqua America continued to build on its previous success, making a record number of acquisitions (30) and witnessing a 53 percent increase in its share price. The company was recognized for its contribution in “revitalizing investor interest in private water companies operating in the U.S.,” by the Judges of Global Water Award in 2006.<sup>18</sup> It is our understanding that they are expanding mostly by buying small private systems.<sup>19</sup> According to recent reports both Aqua America and American Water say they aim for between 20 and 30 acquisitions per year.

Tracking these national and multinational corporations is also a challenge because they are continually making changes to their structure such as adding and dropping cities and subsidiaries, trading divisions of their operations, and changing the name of their corporation completely. They also frequently alter contracts.

## HOW CAN YOU HELP?

Continual changes in the corporate water world and ownership make accurate research difficult, but with extensive help from visitors like you, we can do it. Please send us any information that you know about your local water operations that may be different or more recent than what we have available. Hopefully, our interactive map will also prompt further research on the state of our local water systems.

Please help us improve the accuracy and content of this page by emailing us at [svarghese@iatp.org](mailto:svarghese@iatp.org).

Also, as you can see in the map, both in Stockton and Felton, California, residents are opposed to having local water systems privatized. If the utility in your area is contemplating privatization as an option or if you are part of a community organization that is involved in similar struggles, please write to us.

## WHAT HAS LED TO PRIVATIZATION?<sup>20</sup>

Privatization of public services is not unfamiliar terrain for the United States. In fact, the U.S. offers a very receptive environment for privatized basic services, such as in the health sector. As private sector investment in water increases day by day, we hear more and more references to water as an economic good. It is sometimes called “Blue Gold” and is also known as the “21st century’s oil.” Such references to water have caused concern among citizen groups around the world.

In fact, private water companies dominated the U.S. water supply for most of the nineteenth century.<sup>21</sup> But their market share dropped as governments, in response to crises in public health, stepped in. The calls for transition from private to public ownership arose from the same concerns invoked by advocates of privatization of public water utilities in the developing world today. The business of managing the water supply requires a lot of capital. In the 19th century, private companies were not willing to invest in the infrastructure and provide service to growing municipalities in the U.S. They were unable to make universal access to water a reality, and cities were ravaged by epidemics. For example, in the 1830s, New York City took over most of its water supplies partly in response to the cholera epidemic of 1832 and partly in response to inadequate water supplies, especially during fires.<sup>22</sup>

The 20th century saw the government investing substantially in the nation’s water infrastructure, including financial assistance for the adoption of new wastewater standards.<sup>23</sup> Thus the rate of growth in public water systems far out-numbered that of private water systems. By the end of the century the scale tipped in favor of public water systems (there were over 3,179 systems, over 53 percent of which was in the public sector) and the ratio did not change substantially over most of the next century.<sup>24</sup>

An EPA survey of water utilities in 1986 showed that public utilities owned 45.5 percent of the more than 52,000 water utilities, and 14.7 percent were investor owned. The remaining were under the ownership of home owners associations or were categorized as ancillary—mobile home parks, schools, hospitals, etc.<sup>25</sup> However, the proportion of water services in the United States provided by private water companies, whether measured by customers served or volume of water handled, has remained close to 15 percent since World War II.<sup>26</sup>

But while the percentage of consumers served by the private and public sector has remained more or less the same, what has fundamentally changed is the context of privatization.

Above all, there is recognition that water-related services in the U.S. urgently require significant capital investments. Water-related services are capital-intensive. Continual investment is necessary for the expansion of water networks to new areas as well as for the upkeep and maintenance and occasional replacement of existing underground assets like water pipes and sewers.

According to a study released in February 2001, the Environmental Protection Agency (EPA) estimated that the U.S. should invest \$151 billion over 20 years in new drinking-water infrastructure. In 2002, the EPA reported that capital funding needs for wastewater infrastructure through 2019 could total between \$331 billion and \$450 billion.<sup>27</sup> Thus the nation's 54,000 drinking water and 16,000 wastewater systems face significant infrastructure funding needs over the next 20 years. Despite U.S. spending of billions on infrastructure each year, there is an annual shortfall of at least \$11 billion to replace aging drinking water facilities near the end of their useful life and to comply with existing and future federal water regulations.<sup>28</sup>

Federal assistance has not kept pace with demand. Since 1997, Congress has appropriated only between \$700 million and \$850 million annually for the Safe Drinking Water Act State Revolving Loan Fund (SRF) program, enacted in 1987. The enacted funding level for FY 2005 was \$850 million, less than 10 percent of the total national requirements.<sup>29</sup>

In addition, cities are facing financial constraints. A Pacific Institute study quotes the National League of Cities financial survey (Pagano, 2004), which found that “63% of municipal finance officers believed their cities were less able to meet financial needs than in the previous year, and 61% felt that they would be less able to meet needs in 2005 than in 2004.”<sup>30</sup>

The study also points to two other potential needs for funds: to meet regulatory standards and requirements as well as to address increased security concerns. It points out that municipalities and drinking water utilities are still responding to 1996 amendments to the Safe Drinking Water Act (SDWA). Also, implementation of the US EPA Action Plan (2004b), a collaborative effort between the EPA, federal partners, and the water industry that identifies infrastructure protection needs, is without full federal funding and will almost certainly affect nearly every municipality in the U.S.

The turn to private corporations has occurred in the context of this investment gap (though, ironically, it is not clear whether the private companies that have entered the field have been investing their own capital or relying on rate increases) to upgrade the infrastructure. However, some analysts have argued that the EPA's projected needs can be met with relatively modest rate increases, on average. Of course, for systems that are “worse than average,” the financial challenge is harder to meet or may be overwhelming without external (e.g., federal or state) assistance.<sup>31</sup> Inverted rate structures with “life-line rates” (charging a very minimum payment for the first basic unit, and then applying the principle of the more you use the more you pay) and cross subsidization has been suggested as another option for meeting the challenges of water financing. Such alternatives need to be carefully explored and supported if they do not compromise equity and sustainability considerations.

## GLOBAL CONTEXT OF U.S. WATER PRIVATIZATION

In the previous sections, we looked at some examples of regulatory changes, and how the investment gap in water-related services emerged. In this section, we will explore the specific form that private sector involvement has taken. In particular, how multinationals dominated the process of privatization until very recently, and how global trends influenced the multinationals' roles in the U.S.

From the mid-20th century until the middle of the 1980s, network utilities (e.g., electricity, telecommunications and water) were, with a few exceptions, state-owned monopolies in almost every country in the world. Almost all countries (except for France and the United States to a limited extent) had publicly operated water utilities. These public utilities were responsible for water services in urban areas and semi-urban areas, while in most rural areas water was self-supplied.

However, developing countries had much more limited coverage. Public-sector utilities were unreliable even in urban areas, and consumers often did not get the service they wanted. In the 1980s, there were about 1.8 billion people living in rural areas of developing countries that were not connected to public water systems. Of these, only one person in five had access to clean water.

The main objective of the “U.N. Decade of the Drinking Water” (1981-90) was to expand coverage to reach even the rural areas. There was no attention given to improve the operational performance of existing public sector utilities, and the percentage of people served with some form of improved water supply reached only 79 percent (4.1 billion) in 1990; the percentage of people with access to excreta disposal facilities reached only 55 percent (2.9 billion people) in the same period.<sup>32</sup>

The reasons were many. In this period, countries' investment in water services (drinking water supply and sanitation) infrastructure went down dramatically, while demand for water services kept increasing (due to population growth, rapid urbanization and economic growth). State-run water supply and sanitation programs deteriorated in many countries.

Also, there were no easy answers to questions of efficiency, equity and sustainability, or how to finance the ever-expanding need for infrastructure development and maintenance. Experiences of water scarcity, water-related disputes, wasteful use of water resources, and lack of finances—all were ascribed to public management of water resources. Public water utilities began to be identified not only with underperformance but also with inefficiency and corruption.

Around the same time multilateral lending agencies, such as the World Bank and International Monetary Fund (IMF), concluded that the private sector might provide an answer to the inefficiencies of the public sector. This ideological shift, combined with the crisis in public sector finance, forced many southern governments to privatize water and sanitation services through some form of public-private partnership (PPP) or private sector participation (PSP).

The crisis in public sector finance was also the result of a paradigm shift. Both in developed and developing countries, the use of public funds was no longer considered appropriate for the provision of basic services. This was sometimes because of structural adjustment conditionalities imposed on countries by the WB and IMF, and/or because of the acceptance of neo-liberal ideology by the country's elite. The scarcity of public funds for basic services, combined with an ideological stance in favor of the private sector, saw the UK privatizing its water services under the Thatcher administration.

Water was identified as a mismanaged “scarce commodity,” and toward the late 1990s the World Bank estimated the global market of water services to be worth \$800 billion. The 1990s saw public water utilities in several developed countries seeking private investments. Around this period in the U.S., where the vast majority of water services were still in public hands, private water corporations generated more than \$80 billion a year in revenue.

Private water corporations also began to work systematically in the global arena to influence opinion. Part of this was to cultivate relations in influential governments like that of the U.S., which have considerable influence in international institutions like the IMF and World Bank. Such ties extend to global water policy think tanks and networks such as World Water Council and Global Water Partnership. For example, GWP's chair, Ms. Margaret Catley-Carson, was also chair of Suez Lyonnaise des Eaux's Water Resources Advisory Committee.<sup>33</sup>

While privatization was set in motion in the mid-1980s in Latin America and East Asia, it was only in the late 1990s that water privatization began happening in South Asia and most of Africa. From 1988 to 1995, the pace of privatization was not very fast: In the seven-year period, private utilities serviced less than 100 million people all over the world. However, in the next three years (1995-98), about 40 percent of total infrastructure investment in developing countries involved private sector participation.<sup>34</sup>

But private sector participation created new problems. The private sector did not make the kind of investments that policy-makers had hoped for. And by the late 1990s, price hikes and

deterioration in the quality of services (associated with a cut-back in workforces amongst others) had become a norm where privatization had been introduced. Water cutoffs (sometimes in response to non-payment of bills) gave rise to a questioning of privatization. In 2000, protests in Bolivia drew global attention to the problems associated with water privatization, particularly in a developing country context. Civil society protests around water privatization began happening in Asia, Africa and other parts of South America. The Kyoto Water Forum (2003) saw the coming together of various strands of the water justice movement to reject the dominant paradigm of water management through the commodification/commercialization of water.

Perhaps partially in response to such opposition in developing countries, global water multinationals shifted their emphasis. They had identified the growth potential to be in North America and Europe. While the European market was expected to grow to 37 percent in 2015 (from 26 percent in 2004) the North American market was expected to grow from 19 percent to 36 percent in the same period.

Some multinational water companies had come to the conclusion that it was risky to conduct business in developing country situations. For example, RWE, the German energy company that had just ventured into the water business through an acquisition of Thames Water in UK, said it had a competitive position because of its focus on “stable” markets (countries in Europe and North America, as opposed to developing countries).<sup>35</sup>

With its acquisition of American Water Works, (then the largest publicly traded, investor-owned water company in the United States) in early 2003, RWE had become the third biggest multinational in the world water business.

Since the 1990s, the U.S. has seen increased private operation of public utilities, in particular by foreign water multinationals such as Suez and Vivendi. Much of this growth by foreign water multinationals happened through acquisitions of already existing water operations in the United States.<sup>36</sup> For example, French water company Vivendi, the world's largest environmental services provider, acquired United States Filter, the largest in the U.S. till then, in May 1999, and soon after, in 1999 Suez Lyonnaise des Eaux, a world leader in private infrastructure services, announced plans to acquire United Water Resources Inc. (UWR) the second-largest water services company in the U.S.<sup>37</sup> Statements by Bill Alexander, CEO of Thames Water, that the “U.S. water market represents [the] best growth opportunity worldwide” caused concern among local authorities and citizen groups in the U.S.<sup>38</sup> Causing further concern was Bechtel's case, Bechtel vs. Bolivia, which was before the International Center for Settlement of Investment Disputes (ICSID) at the World Bank. The case was part of a strategy by Bechtel to use a bilateral investment agreement to better protect its investments in water privatization projects, a distinct possibility if water services were to be included in WTO's General Agreement in Trade in Services.<sup>39</sup>

Despite RWE's claims of being the "prime consolidator of the fragmented U.S. water market," the ride has not been as smooth as RWE had expected. Just as we finished our survey in early 2006, RWE announced its divestment from the global water business. More broadly, analysis of International Community Management Association (ICMA) data has shown a decline in the number of private sector contracts and an increasing trend of re-municipalization of private sector concessions in the U.S.<sup>40</sup> It is tempting to celebrate this as a victory for U.S. citizens groups that want to retain local control of water systems.

## CONCLUSION

It may be premature to write off privatization in the water sector more broadly. The recent World Bank Water Sector Strategy Draft continues to advocate the liberalization of the national water sector in both urban and rural areas as an answer to the crisis in water management in developing countries. Even in water supply systems, the private sector continues to be a significant actor. Symptomatic of this is the increased interest and involvement of Private Equity Investment (PEI) in the water business, which is expected to continue over the long-term future.<sup>41</sup>

Also, there is increasing private interest in other sectors of the water business. U.S. based corporations (such as Dow, 3M, General Electric, Danaher, ITT, Pentair and Siemens) are investing in the U.S. water treatment and purification business.<sup>42</sup> It is interesting that some of these companies are also amongst the worst corporate water polluters.

More directly affecting the public drinking water supply is the increased use of bottled water. Despite community opposition, corporations such as Nestle, Coke and Pepsi have been successful in convincing the public that their bottled water is healthier than municipal water. According to a number of studies, bottled water usage is becoming pervasive, which in essence is participating in a new form of privatization of the drinking water supply.<sup>43</sup> In the U.S., despite very high tap water quality standards (unlike bottled water, which is not regulated by EPA), more and more Americans feel the need to opt out of the public water system, and depend on bottled water. This loss of faith is less a result of underperformance of the water utility than of highly successful marketing strategies. This loss of faith sometimes seems shared even by the EPA itself. On December 12, 2006, EPA organized a listening session on "Exploring Bottled Water as an Alternative Compliance Option for Chronic Contaminants Regulated under the Safe Drinking Water Act in Limited Situations for Non-Transient, Non-Community Water Systems." In the listening session itself, citizens' groups argued that this initiative poses a new threat to public water systems.<sup>44</sup>

We need to continue to work to build public water systems that are fully accountable to communities. Such systems would need to have rate structures that ensure that all can afford water, and at the same time bring in both needed revenue and adequate federal funding.

## ADDITIONAL RESOURCES

- Tap water that meets federal and state standards is generally safe to drink. However, as a consumer you may have many questions about your drinking water system. A publication by the Environmental Protection Agency (EPA), *Water on Tap: What You Need to Know* ([www.epa.gov/safewater/wot/pdfs/book\\_waterontap\\_full.pdf](http://www.epa.gov/safewater/wot/pdfs/book_waterontap_full.pdf)), October 2003 is a good resource that may answer many of your questions.
- You can request a copy of the annual water-quality report from your city or check whether it is posted on-line at [www.epa.gov/safewater/dwinfo/](http://www.epa.gov/safewater/dwinfo/). "Making Sense of Your Right to Know Report" A fact sheet by the Campaign for Safe and Affordable Drinking Water, available at [www.safe-drinking-water.org/rtk.html](http://www.safe-drinking-water.org/rtk.html), provides a broad understanding of Right to Know Reports. A glossary of the terms used in the report can be found at [www.epa.gov/safewater/glossary.htm](http://www.epa.gov/safewater/glossary.htm).
- The Safe Drinking Water Hotline ([www.epa.gov/safewater/hotline/](http://www.epa.gov/safewater/hotline/)) provides information to the regulated community, state and local officials, and the public about the EPA's drinking water regulations and other related drinking water and ground water topics. Specifically, the Hotline clarifies drinking water regulations, provides appropriate Federal Register citations, explains EPA-provided policies and guidelines and gives up-to-date information on the status of regulations. The Hotline can also provide state and local contacts. Complaints about drinking or ground water should be directed to the EPA Safe Drinking Water Hotline. To contact the Safe Drinking Water Hotline: Call toll-free (800) 426-4791. Call (703) 412-3330 for local or international calls.
- If your city is considering privatization of its municipal water and/or sewer system, you may find all or parts of the following documents, by Citizens Network on Essential Services, relevant: *Regulatory Priorities for Water and Sanitation: Perspectives of Private Interests vs. Citizens* ([www.servicesforall.org/html/water/regulatory\\_imperatives.shtml](http://www.servicesforall.org/html/water/regulatory_imperatives.shtml))
- *Assessing the Feasibility of Private Sector Participation in Basic Services* ([www.servicesforall.org/html/tools/Policy\\_Analysis\\_Series\\_2\\_print.shtml](http://www.servicesforall.org/html/tools/Policy_Analysis_Series_2_print.shtml))

## North American Citizens Groups working on drinking water related issues

- Clean Water Action [www.cleanwateraction.org](http://www.cleanwateraction.org)
- Food and Water Watch [www.foodandwaterwatch.org](http://www.foodandwaterwatch.org)
- Polaris Institute [www.polarisinstitute.org](http://www.polarisinstitute.org)
- Sierra Club [www.sierraclub.org/cac/water/](http://www.sierraclub.org/cac/water/)

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10. About 0.64 percent, or 670,986 households, representing more than 1.7 million people, lack complete plumbing facilities in the U.S. For an excellent analysis of the availability of water and sanitation services in the United States see: Gasteyer, Stephen and Vaswani, Rahul T. "Still Living Without the Basics in the 21st Century," by the Rural Community Assistance Partnership [http://www.rcap.org/assets/docs/basics/RCAP\\_full\\_final.pdf](http://www.rcap.org/assets/docs/basics/RCAP_full_final.pdf)
11. "Public Drinking Water Systems: Facts and Figures" available at <http://www.epa.gov/safewater/pws/factoids.html> and "Public Supply" available at <http://pubs.usgs.gov/circ/2004/circ1268/hdocs/text-ps.html>
12. For a discussion on the changes, see Wolff, Gary and Hallstein, Eric 2005, "Beyond Privatization: Restructuring Water Systems To Improve Performance," Pacific Institute for Studies in Development, Environment and Security, December 2005. [http://www.pacinst.org/reports/beyond\\_privatization/Beyond\\_Privatization.pdf](http://www.pacinst.org/reports/beyond_privatization/Beyond_Privatization.pdf)
13. Wall Street Transcript, "Profiting in the Water Industry: Tapping a reservoir of wealth," December 2005, [http://www.twst.com/conferences/water\\_december/water\\_december.pdf](http://www.twst.com/conferences/water_december/water_december.pdf) Report on the conference at: [http://www.verticalpulse.com/my\\_weblog/the\\_water\\_industry/index.html](http://www.verticalpulse.com/my_weblog/the_water_industry/index.html)
14. I thank Jasmine Hannah for doing the survey of the U.S water utilities, as well as for a preliminary report of the survey, that made this project possible.
15. Amongst them are: American States Water Company, California Water Service group, Golden State Water Company, Southwest Water Company, United Utilities and RWE, Suez, Veolia Environment, (and to a very limited extent, American International Group (AIG).
16. RWE is currently in the process of disinvesting from its water business in the United States (and globally). [http://www.illinoisamerican.com/awpr1/newsroom/press\\_releases/page13740.html](http://www.illinoisamerican.com/awpr1/newsroom/press_releases/page13740.html)
17. The information provided by Aqua America is aggregate for each of the states where it operates and is limited to few indicators such as "consumers served" and counties that they operate in. <http://www.aquaamerica.com/Library/InfoManage/Guide.asp?FolderID=33>
18. The Global Water Awards, <http://www.globalwaterawards.com/watercomp.php>
19. Personal Communication with Ruth Caplan, Alliance for Democracy, November 30, 2006
20. I thank Gary Wolff for taking time to comment on an earlier draft of this section.
21. In 1800, of the 16 waterworks in the United States, 15 (93.7 percent) were owned by private sector. By 1850 it was still as high as 60.3 percent, and toward the end of the century the private sector owned about 46.8 percent of the water utilities. Baker M.N. "Water Works" in Edward W. Bemis ed. *Municipal Monopolies* (New York: Thomas Crowell & Company 1899) quoted in Beecher, Janice A., Dreese, Richard D. and Stanford, John D. *Regulatory Implications of Water and Wastewater Utility Privatization*, The National Regulatory Research Institute, July 1995, p.21.
22. For a brief history of the development of the water services in New York (initially started as an enterprise of Chase Manhattan Company), see Koeppel, Gerard T. *Water for Gotham*, Princeton University Press, Princeton, N.J., 2001; and Melosi, Martin V. *Full Circle: Public Goods versus Privatization of Water Supplies in the United States*, Proceedings of the International Summer Academy on Technology Studies 2004. [http://www.ifz.tugraz.at/index\\_en.php/filemanager/download/309/Melosi\\_SA%202004.pdf](http://www.ifz.tugraz.at/index_en.php/filemanager/download/309/Melosi_SA%202004.pdf)
23. This transition from private to public ownership accelerated largely because of a legislative change after World War I when Congress exempted interest payments on municipal bonds from federal income tax, assuring municipalities the opportunity to issue bonds at lower interest rates. By the early 1960s, there were more than 19,000 municipal water systems alone in operation throughout the U.S. that accounted for a little over 50 percent of U.S. water utilities.
24. Hall, Ellen and Dietrich, Andrea. *A Brief History of Drinking Water*, American Water Works Association, 2000. <http://www.awwa.org/Advocacy/news/info/HistoryofDrinkingWater.cfm>
25. Immerman, Frederick W. *Final Descriptive Summary: 1986 Survey of Community Water Systems* (Washington DC: Office of Drinking Water, US EPA, 1987, Table 2-2), quoted in Beecher, Janice A., and Mann, Patrick "Deregulation and Regulatory Alternatives for Water Utilities," The National Regulatory Research Institute, February 1990.
26. According to the National Association of Water Companies (NAWC), As quoted in the Submission of the United States to the Round Table on Competition and Regulation of Water Supply, DAFNE/COMP/WP2/WD (2004) 11, Working Party No. 2 on Competition and Regulation of OECD, 4th February 2004.
27. American Society of Civil Engineers, *Waste Water*. <http://www.asce.org/reportcard/index.cfm?reaction=factsheet&page=7>
28. American Society of Civil Engineers, *Drinking Water*. <http://www.asce.org/reportcard/index.cfm?reaction=factsheet&page=6>
29. American Society of Civil Engineers, *Drinking Water*. <http://www.asce.org/reportcard/2005/page.cfm?id=24#policy>
30. Wolff, Gary and Hallstein, Eric 2005, *Beyond Privatization: Restructuring Water Systems To Improve Performance*, Pacific Institute for Studies in Development, Environment and Security, December 2005. [http://www.pacinst.org/reports/beyond\\_privatization/Beyond\\_Privatization.pdf](http://www.pacinst.org/reports/beyond_privatization/Beyond_Privatization.pdf)
31. Allbee, 2005, as cited in "Beyond Privatization" by the Pacific Institute, December 2005 see above.
32. In 2000, the percentage of people served with some form of improved water supply was 82 percent (4.9 billion) and the proportion of the world's population with sanitation facilities was 60 percent (3.6 billion) Source: World Health Organization, [http://www.who.int/docstore/water\\_sanitation\\_health/Globassessment/GlobalI.htm](http://www.who.int/docstore/water_sanitation_health/Globassessment/GlobalI.htm)
33. Suez Lyonnaise des Eaux. "Suez Lyonnaise des Eaux creates the Water Resources Advisory Committee, a group of international experts established to brainstorm on major water resource issues." February 24, 2000. <http://www.waterunuc.com/gb/lyon48gb.htm>
34. However note that, these projects are rarely financed exclusively by private funds. They more typically attract some public financing to complement private funds. This form of private participation is called public-private initiatives (PPIs) or public-private partnerships (PPPs).
35. RWE Group, RWE Thames Water, August 12, 2003, London.
36. Dahlburg, John-Thor. "Tap Water Around the World Developing a French Flavor." *Los Angeles Times*. April 30, 2000. <http://waterindustry.org/Water-Facts/SLE-7.htm>
37. U.S. Water News Online. "Suez Lyonnaise Des Eaux completes acquisition of United Water Resources." August 2000. <http://www.uswaternews.com/archives/arcsupply/tsuelyo8.html>
38. Document on Conference Call (Bill Alexander, CEO Thames Water, Chris Bunker, Finance Director Thames Water) on Completion of the acquisition American Water Works RWE Group, RWE Thames Water, January 13, 2003.
39. For an analysis see, IATP calls on GATS and Water, Civil Society Call to the World Summit on Sustainable Development, Johannesburg, 2002, <http://www.citizen.org/cmep/Water/conferences/articles.cfm?ID=8157>; A Civil Society Call to the Ministerial Conference, Third World Water Forum, Kyoto, 2003, <http://www.waterobservatory.org/library.cfm?refID=33790>; and Call to "Keep water out of WTO" to WTO Ministerial, Cancun 2004 (in Spanish) <http://www.tradeobservatory.org/library.cfm?refID=33719>
40. I thank Stephen Gasteyer for pointing me to this trend.
41. Stuart, Alix Nyberg. "Water for Profit," CFO Magazine. February 1, 2007. [http://www.cfo.com/printable/article.cfm/8582008/c\\_8613584?f=options](http://www.cfo.com/printable/article.cfm/8582008/c_8613584?f=options). An analysis of this is beyond the scope of this paper.
42. Maxwell, Stev. "The State of the Water Industry, Who Will Pay? Who Will Profit?" *The Environmental Benchmark and Strategist TM*. Winter 2006 Issue, pp: 1-9. [http://www.summitglobal.com/acrobat\\_pdf/Maxwell\\_WaterIssuc2006.pdf](http://www.summitglobal.com/acrobat_pdf/Maxwell_WaterIssuc2006.pdf)
43. Stevensen, Mark. "Bottled Water Sales Reveal Poverty Gap." *The Standard*. March 17, 2006. [http://www.thestandard.com.hk/news\\_detail.asp?we\\_cat=6&art\\_id=14334&sid=7092638&con\\_type=1&d\\_str=20060317](http://www.thestandard.com.hk/news_detail.asp?we_cat=6&art_id=14334&sid=7092638&con_type=1&d_str=20060317)
44. To see why this threatens public water systems see Cohen, Arthur. (SANIPLAN), Statement made during the Public Comment section scheduled at the end of the day at the EPA Listening Session, December 12, 2006, <http://www.waterobservatory.org/library.cfm?refid=96697>