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Privatization of Public Water Services: The States' Role in Ensuring Public Accountability*

Craig Anthony (Tony) Arnold**

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I. OVERVIEW

There is a controversial trend towards privatization of public water services, not only internationally but also in the United States.[1] Although the portion of all public water services in the United States provided by privately-owned water suppliers is small (about eleven to fifteen percent),[2] this portion has increased dramatically over the past two decades,[3] consistent with political forces and public policies favoring privatization of public services generally.[4] States have enacted statutes expressly authorizing

1. *See generally* National Research Council, Privatization of Water Services in the United States: An Assessment of Issues and Experience (Nat'l Acad. of Sci. 2002), *available at* http://www.nap.edu/books/0309074444/html/ (last visited Feb. 3, 2005); Peter H. Gleick et al., *The New Economy of Water: The Risks and Benefits of Globalization and Privatization of Fresh Water* (Pacific Inst. for Studies in Dev., Env't & Sec. 2002); Robin A. Johnson et al., *Long-term Contracting for Water and Wastewater Services* (2002); Kathy Neal et al., *Restructuring America's Water Industry: Comparing Investor-Owned and Government Water Systems*, Reason Pub. Policy Inst. Policy Study No. 200 (Jan. 1996) (comparing performance of government-owned companies with investor-owned companies), *available at* http://www.rppi.org/ps200.html (last visited Feb. 3, 2005); Isabelle Fauconnier, *The Privatization of Residential Water Supply and Sanitation Services: Social Equity Issue in the California and International Contexts*, 13 BERKELEY PLANNING J. 37, 52-53 (1999); Wolfgang Harrer, *The Giants of Water: RWE, Vivendi, & Suez*, ECOWORLD (Dec. 12, 2002) (discussing water privatization), *available at* http://www.ecoworld.org/Home/articles2.cfm?TID=329 (last visited Feb. 3, 2005) (describing the reasons behind water privatization); Robert Vitale, *Privatizing Water Systems: A Primer*, 24 FORDHAM INT'L L.J. 1382 (2001).

2. National Research Council, *supra* note 1, at 2-3, 14-15; REASON PUB. POLICY INST., WATER SERV., *Water Services*, *available at* http://www.privatization.org/database/policyissues/water_local.html (last visited Feb. 3, 2005).

3. *See, e.g.*, Johnson, *supra* note 1, at 4-5; David L. Correll, *Water Industry Catches Wave of Opportunity*, UTIL. BUS., Mar. 30, 1999; Marianne Lavelle et al., *The Coming Water Crisis*, 133 U.S. NEWS & WORLD REP., Aug. 12, 2002, at 22; Jon Luoma, *Water for Profit: Contamination, Riots, Rate Increases, Scandals*, MOTHER JONES, Nov. 1, 2002, at 34; John Maggs, *The State Experience*, NAT'L J., July 12, 2003; Mort Rosenblum, *Is Water A Human Right or a Commodity?*, L.A. TIMES, Aug. 25, 2002, at A3.

4. *See, e.g.*, PRESIDENT'S COMMISSION ON PRIVATIZATION, PRIVATIZATION: TOWARD MORE

municipalities and other public entities to contract with private firms to provide various kinds of water services, and even to sell their waterworks.[5] Large international water companies, and their national and local subsidiaries, have successfully bid for contracts to provide water services to a growing number of cities of all sizes.[6] And private-market advocates have released reports stating that privatization of water services is a trend that will only grow.[7]

At the same time, local citizens' groups, environmental groups, and others have expressed concern over, and sometimes opposition to, privatization of public water supplies and services.[8] In some cases, public opposition has defeated proposed privatization arrangements.[9] In other cases, dissatisfied cities have terminated contracts and/or bought out private water suppliers.[10] There is no question that water privatization is controversial. This article examines the issues that arise in privatization of public water supply services,[11] and recommends how state legislatures can increase and ensure accountability to the public when cities and local districts undertake privatization measures.[12]

There are no simple and easy truths about privatization of water services, despite rhetoric on both sides of the issue. This area is characterized by ideological conflicts between economic-theory libertarians who advocate for private provision of public services on economic efficiency grounds,[13] and social-theory statists who advocate for government

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EFFECTIVE GOVERNMENT (1988); Cynthia DeLaughter, Comment, *Priming the Water Industry Pump*, 37 HOUS. L. REV. 1465 (2000); Donald G. Featherstun et al., *State and Local Privatization: An Evolving Process*, 30 PUB. CONT. L.J. 643 (2001); Maggs, *supra* note 3; Shirley L. Mays, *Privatization of Municipal Services: A Contagion in the Body Politic*, 34 DUQ. L. REV. 41 (1995).

5. *See* discussion *infra* Part III (A).

6. *See generally* National Research Council, *supra* note 1; National Association of Water Companies, *Public Water Supply Facts* (1999) (information sheet on file with author); United Water, *Public-Private Partnerships* (2003) (information sheets on file with author).

7. *See, e.g.*, Johnson, *supra* note 1; Neal, *supra* note 1; Robin Johnson & Adrian Moore, *Opening the Floodgates: Why Water Privatization Will Continue*, Reason Pub. Policy Inst., Policy Brief 17 (2001), *available at* http://www.rppi.org/pbrief17.html (last visited Feb. 3, 2005). These reports were issued by the Reason Public Policy Institute, which is one of the most active advocates for privatization of government services. *See also* WATER PARTNERSHIP COUNCIL, ESTABLISHING PUBLIC-PRIVATE PARTNERSHIPS FOR WATER AND WASTEWATER SYSTEMS: A BLUEPRINT FOR SUCCESS (2003).

8. *See* discussion *infra* Part II (B) (4).

9. *See infra* pp. 31-35.

10. *See id.*

11. *See* discussion *infra* Part IV.

12. *See* discussion *infra* Part V. This article does not address privatization of wastewater and sewer systems, or private markets in water supplies themselves, except as directly relevant to privatization of local water services. This article also does not address global trends towards privatization of water services and supplies, which are considerably greater than in the United States. *See, e.g.*, Gleick, *supra* note 1.

13. *See, e.g.*, TERRY L. ANDERSON & DONALD R. LEAL, FREE MARKET ENVIRONMENTALISM

provision of public services on public interest grounds.[14]

The rhetoric will inevitably lead to bad public policy because privatization of public water services is neither unqualifiedly beneficial to the public nor unqualifiedly harmful to the public. The more important issues involve identifying under what conditions water privatization should occur and what safeguards and accountability mechanisms should be provided to protect the public. There are several reasons why the issue is more nuanced than advocates often reveal.

First, privatization does not have a single meaning.[15] Privatization of public water services is a broad category that encompasses many different arrangements ranging from outsourcing of specific services like billing or maintenance, on one end of the spectrum, to private ownership and control of a city's water facilities and supplies, on the other end of the spectrum. Certain types of privatization might make sense in some circumstances, while other types might not.

Second, private provision of public water services is not always more

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(1991); David Haarmeyer, *Privatizing Infrastructure: Options for Municipal Water Systems*, Reason Pub. Policy Inst., Report No. 151 (1999), *available at* http://www.rppi.org/ps151.html (last visited Feb. 3, 2005); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 3-18 (6th ed. 2003); PRESIDENT'S COMMISSION ON PRIVATIZATION, *supra* note 4; E.S. SAVAS, PRIVATIZING THE PUBLIC SECTOR: HOW TO SHRINK GOVERNMENT (1982); REGULATION AND THE REAGAN ERA: POLITICS, BUREAUCRACY AND THE PUBLIC INTEREST (Roger E. Meiners & Bruce Yandle eds., 1989); THE PRIVATIZATION PROCESS: A WORLDWIDE PERSPECTIVE (Terry L. Anderson & Peter J. Hill eds., 1996); PUBLIC ENTERPRISES: RESTRUCTURING AND PRIVATIZATION (Jack L. Upper & George B. Baldwin eds., 1995). *See also* Karen Bakker, *Liquid Assets*, 29(2) ALTERNATIVES J. 17 (2003), *available at* http://www.alternativesjournal.ca/issues/292/bakker.asp (last visited Feb. 3, 2005); DeLaughter, *supra* note 4; *see also* sources cited *supra* note 7.

14. *See, e.g.*, DAVID CROMWELL, PRIVATE PLANET: CORPORATE PLUNDER AND THE FIGHT BACK (2001); BARBARA H. FRIED, THE PROGRESSIVE ASSAULT ON LAISSEZ FAIRE: ROBERT HALE AND THE FIRST LAW AND ECONOMICS MOVEMENT (1998); GERALD FRUG, CITY MAKING: BUILDING COMMUNITIES WITHOUT BUILDING WALLS 167-179 (1999); JOEL F. HANDLER, DOWN FROM BUREAUCRACY: THE AMBIGUITY OF PRIVATIZATION AND EMPOWERMENT (1996); MORTON J. HORWITZ, THE TRANSFORMATION OF AMERICAN LAW, 1870-1960: THE CRISIS OF LEGAL ORTHODOXY (1992); ROBERTO MANGABEIRA UNGER, LAW IN MODERN SOCIETY: TOWARD A CRITICISM OF SOCIAL THEORY 192-203 (1977); Tony Clarke, *Water Privateers*, 29(2) ALTERNATIVES J. 10 (2003) *available at* http://www.alternativesjournal.ca/issues/292/clark.asp (last visited Feb. 3, 2005). *See also* Gleick, *supra* note 1; Bakker, *supra* note 13; Fauconnier, *supra* note 1; Mays, *supra* note 4; Public Citizen, *The Big Greedy: A Background Check on the Corporations Vying to Take Over New Orleans' Water Systems* (Aug. 2001) [hereinafter Public Citizen, *The Big Greedy*]; Public Citizen, *Water Privatization: A Broken Promise: Case Histories From Throughout the United States* (Oct. 2001) [hereinafter Public Citizen, *Broken Promise*]; Public Citizen, *Thirsting for Profits: A Background Check on Corporations Vying to Take Over Stockton's Water Supplies* (Oct. 2001) [hereinafter Public Citizen, *Thirsting for Profits*]; Public Citizen, *Reclaiming Public Assets: From Private to Public Ownership of Waterworks* (Sept. 2002) [hereinafter Public Citizen, *Reclaiming Public Assets*]; Public Citizen, *Water Heist: How Corporations Are Cashing in on California's Water* (Dec. 2003); Public Citizen, *The ABCs of Water Privatization*, http://www.citizen.org/documents/Privatization_ABCs_-_Water_for_All.pdf (last visited Feb. 3, 2005) [hereinafter Public Citizen, *ABCs*]; Public Citizen, *Top Ten Reasons to Oppose Water Privatization*, http://www.citizen.org/cmep/water/general/whyoppose/articles.cfm?ID=7566 (last visited Feb. 3, 2005) [hereinafter Public Citizen, *Top Ten Reasons*]; Public Citizen, *Turning Up the Tap: How the Private Water Industry Wants to Boost Profits – at the Expense of Taxpayers*, *available at* http://www.citizen.org/cmep/Water/articles.cfm?ID=11882 (last visited Feb. 3, 2005) [hereinafter Public Citizen, *Turning Up the Tap*].

15. *See infra* Part II (B) (2).

efficient than public provision of public water services. The efficiency is highly context-specific: it depends on the size and scope of the city's water service operation; the financial and political condition of the city government; the potential for changing municipal management and operations to increase efficiency; the private provider's size, financial condition, management strengths and weaknesses, operational efficiencies, experience with similar water systems, and corporate culture; the customers' consumption patterns; and other factors. The most operationally efficient outcome for one city may be vastly different for a different city.

Third, operational efficiency does not mean the same thing as economically optimal.[16] Even if a private provider of public water services could operate with lower operational costs than a public provider, there might be substantial public costs. These costs may include lesser environmental protection, greater risk to the security and stability of municipal water supplies, decreased water quality, and less public input into the types of desired services.[17] As many economists note, private markets do not always reflect or price public values and costs adequately. The benefits and costs of privatization in particular circumstances have to be considered broadly, not merely in terms of operational inputs and outputs.

Fourth, private control and provision of public water services are not always a threat to the public's interests. Likewise, they are not always a threat to the protection of a resource vital to life, the community, the environment, and the economy.[18] There are circumstances in which private supply of public water services can result in lower rates and more reliable and cleaner drinking water supplies than existing public institutions can provide.[19] Privatization agreements can be subject to safeguards, conditions, and restrictions that serve to protect the public's interest in water supply and services.[20]

Finally, just because property is private, rather than public, does not mean that it is not subject to public controls and interests. Studies of property arrangements in practice in the United States show that the distinctions between private control and public control are not clear: bright lines between private and public control over property are more a matter of theory, ideology, or advocacy by affected interests than a social and legal reality.[21] Instead, most private property is subject to public controls and

16. *See* discussion *infra* Part IV (B).

17. *See infra* Parts IV (D), (G).

18. *See infra* Part IV (C), (D), (J).

19. *See* discussion *infra* Part IV (C).

20. *See* discussion *infra* Part IV (D).

21. *See* Craig Anthony (Tony) Arnold, *The Reconstitution of Property: Property as a Web of Interests*, 26 HARV. ENVTL. L. REV. 281 (2002); ERIC T. FREYFOGLE, THE LAND WE SHARE: PRIVATE PROPERTY AND THE COMMON GOOD (2003); WILLIAM JOSEPH SINGER, ENTITLEMENT

regulation. Also, private property is limited by the rights of the public and of third parties like neighbors or other property owners. Water, in particular, is an area in which private interests are substantially limited by public interests. Private rights in water are limited by state ownership, the public trust doctrine, permit systems, prohibitions against wasteful use, public interest criteria, and the rights of other holders of interests in water (e.g., other appropriators, other riparian landowners, or other owners of land overlying underground aquifers).[22] These limitations on private ownership go back far in history,[23] and serve not only political and social goals but also optimal economic utility and the system of private property generally.

Thus, private control or even ownership of public water services does not mean that the private providers cannot or should not be limited by public controls, regulations, conditions, and rights that ensure accountability to the public. Evidence from the United States experience with municipal water privatization offers an important lesson: **the critical issue is public accountability**.

Neither absolute prohibitions on privatization nor unlimited authorization and facilitation of privatization are proper functions of law and public policy. Instead, law and public policy do serve, and should serve, to impose limits and conditions on privatization designed to protect the public's interests. These limits should apply to 1) whether or not to privatize; 2) under what conditions and circumstances it is permissible and/or desirable to privatize; 3) whether the operations and results of a private provider meet expected or required standards; and 4) under what conditions and circumstances may the parties modify or terminate their arrangement. This article not only identifies some of the important areas of water privatization in which accountability is needed, but also recommends state legislation establishing standards and processes for the approval of water service privatization contracts that ensure this needed accountability.[24]

II. THE STATUS OF WATER PRIVATIZATION IN THE UNITED STATES

A. History

Public provision of water services has not always been the dominant mode in the United States.[25] While water systems serving the public began in the mid-1700s in Pennsylvania and Rhode Island, they developed slowly.[26] By 1850, there were eighty-three such water systems in the United

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(2000). Professor Freyfogle offers a particularly thoughtful critique of the privatization of landscapes. FREYFOGLE, *supra* note 21, at 157-201.

22. *See generally* A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES (1993 & Annual Supp.).

23. *Id.*

24. *See* discussion *infra* Part V.

25. *See* National Research Council, *supra* note 1, at 30.

26. *Id.*

States, fifty of which were privately owned.[27] By 1900, there were more than 3,000 water systems in the United States to supply water to the public, with slightly more than one-half of them publicly owned and slightly less than one-half of them privately owned.[28] It was only in the first few decades of the twentieth century that public ownership and provision of water services became the overwhelmingly dominant mode by which the public received water.

Several factors contributed to the rise of public provision of municipal water services in the twentieth century. These factors are important to understanding the current pendulum swing back towards privatization. First, urban and suburban population grew, not only in absolute terms but also as a percentage of the U.S. population.[29] Thus, the percentage of U.S. households served by their own wells or their own withdrawals from surface water dropped, and the need for centralized water systems grew.[30]

Second, cities grew in power and legal authority in the twentieth century. Around the turn of the century, cities were constrained by what was known as "Dillon's Rule," a judicial principle (arising out of concerns over large cities' corrupt political machines) that denied municipalities any powers and authorities not expressly granted by the state legislature.[31] Over time, Dillon's Rule eroded, replaced by liberal judicial interpretation of municipal authority and state statutory and constitutional recognition of home rule status for many cities.[32]

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27. *Id.*

28. *Id.* at 30, 34.

29. DENNIS R. JUDD, THE POLITICS OF AMERICAN CITIES: PRIVATE POWER AND PUBLIC POLICY, 13-17, 145, 166 (2d ed. 1984).

30. *Id.* at 32-34.

31. JOHN DILLON, 1 MUNICIPAL CORPORATIONS 448-55 (5th ed. 1911); *see also* FRUG, *supra* note 14, at 45-53.

32. *See, e.g.*, Johnson v. Bradley, 841 P.2d 990 (Cal. 1992); Marshall Field & Co. v. Vill. of S. Barrington, 415 N.E.2d 1277 (Ill. App. Ct. 1981); Webster Realty Co. v. City of Fort Dodge, 174 N.W.2d 413 (Iowa 1970); State v. Hutchinson, 624 P.2d 1116 (Utah 1980). *See generally* JUDD, *supra* note 29, at 118-40; Richard Briffault, *Our Localism: Part I – The Structure of Local Government Law*, 90 COLUM. L. REV. 1 (1990). In particular, cities have broad authority with respect to supplying water to the public, including eminent domain power, immunity from antitrust liability, and discretion to manage urban growth and water availability by enacting water moratoria or growth moratoria or by rejecting specific development projects. *See* Town of Hallie v. City of Eau Claire, 471 U.S. 34 (1985) (concerning antitrust immunity); Lockary v. Kayfetz, 917 F.2d 1150 (9th Cir. 1990) (holding water moratorium not a per se taking); Associated Home Builders of the Greater Eastbay, Inc. v. City of Livermore, 557 P.2d 473 (Cal. 1976) (finding growth moratorium dependent on public infrastructure improvements); San Mateo County Coastal Landowners' Ass'n v. County of San Mateo, 45 Cal. Rptr. 2d 117 (Cal. Ct. App. 1995) (affirming voter-approved coastal development plan as a valid exercise of local planning power); Bldg. Indus. Ass'n v. Marin Mun. Water Dist., 1 Cal. Rptr. 2d 625 (Cal. Ct. App. 1991) (holding that the district was not required to assess needs of current and potential customers before instituting moratorium); Gilbert v. State, 266 Cal. Rptr. 891 (Cal. Ct. App. 1990) (affirming moratorium based upon water supply and quality concerns); Dateline Builders, Inc. v. City of Santa Rosa, 194 Cal. Rptr. 258 (Cal. Ct. App. 1983)

Third, many states authorized special-purpose water districts, which are public entities having missions, expertise, powers, duties, and sources of financing that are more narrowly tailored to providing water services than the typical general-government municipality.[33] Fourth, favorable federal tax treatment of interest on state and municipal bonds created incentives for public investment in, and ownership of, basic public utilities.[34]

Fifth, many private water suppliers of the late nineteenth century failed to provide adequate services at reasonable prices.[35] For example, the Los Angeles City Water Company, a private firm supplying Los Angeles with water in the last three decades of the nineteenth century, charged high rates to its customers, failed to provide adequate service (e.g., low pressure and malfunctioning hydrants), and illegally diverted water to which it was not entitled, thus making a significant profit at the expense of the public.[36] Likewise, the Spring Valley Water Works, a private firm supplying San Francisco with water during the same time frame, had difficulty meeting the high demand for water in the rapidly growing San Francisco area, charged high rates for poor service, but refused to sell its facilities to the city until the state legislature mandated city ownership of utilities in San Francisco.[37]

(holding that the refusal to connect city sewers to "leapfrog" development was consistent with land use policies); Swanson v. Marin Mun. Water Dist., 128 Cal. Rptr. 485 (Cal. Ct. App. 1976) (affirming moratorium based upon anticipated future water shortages); City of Thornton v. Farmers Reservoir & Irrigation Co., 575 P.2d 382 (Colo. 1978) (recognizing eminent domain power); Serpa v. County of Washoe, 901 P.2d 690 (Nev. 1995) (holding that the denial of a new subdivision based on county prohibition on new development that is not accompanied by new water sources); First Peoples Bank of N.J. v. Township of Medford, 599 A.2d 1248 (N.J. 1991) (holding that the sewer ordinance contained adequate standards and was not implemented arbitrarily); Schofield v. Spokane County, 980 P.2d 277 (Wash. Ct. App. 1999) (holding that lot size, rather than density, a valid criteria in regulating waterfront waste management). *See also* Richard S. Harnsberger, *Eminent Domain and Water Law*, 48 NEB. L. REV. 325 (1969). Water moratoria as mechanisms for growth control have generally proven ineffective, though. *See* NORRIS HUNDLEY, JR., THE GREAT THIRST: CALIFORNIANS AND WATER: A HISTORY 519 (rev. ed. 2001) (stating that attempts to control growth through limited water supply have not been successful); Carla Hall, *Santa Barbara Opens the Tap to Builders Development*, L.A. TIMES, Mar. 24, 1997, at A3 (describing how Santa Barbara's slow-growth limits on water supplies gave way to new water supplies and an accompanying boom in development); A. Dan Tarlock, *We Are All Water Lawyers Now: Water Law's Potential But Limited Impact on Urban Growth Management*, *in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 57-94 (Craig Anthony (Tony) Arnold ed., 2005) (describing the inherent and perpetual growth bias in water law) [hereinafter WET GROWTH].

33. *See, e.g.*, ROBERT GOTTLIEB & MARGARET FITZSIMMONS, THIRST FOR GROWTH: WATER AGENCIES AS HIDDEN GOVERNMENT IN CALIFORNIA (1991); Barton H. Thompson, Jr., *Institutional Perspectives on Water Policy and Markets*, 81 CAL. L. REV. 673 (1993). *See also* NANCY BURNS, THE FORMATION OF AMERICAN LOCAL GOVERNMENTS: PRIVATE VALUES IN PUBLIC INSTITUTIONS 11 (1994) (showing that in 1987, the U.S. had 3,060 special local government districts devoted to water supply, a 23.4 percent increase since 1977).

34. I.R.C. § 103(a) (2004); National Research Council, *supra* note 1, at 27-28; Vitale, *supra* note 1, at 1390.

35. *See, e.g.*, DeLaughter, *supra* note 4, at 1472 (noting that in the nineteenth century private suppliers of water could not meet the demands of the rapidly developing U.S. by cost-effectively providing clean, reliable water to all local residents at a reasonable price). *See also* Gleick, *supra* note 1, at 23.

36. Fauconnier, *supra* note 1, at 51-53.

37. *Id.*

Ultimately, the public reacted to unreliable private supply of water by demanding government provision of water services.

B. Current Status

1. The Trend Towards Privatization

Even though privately owned water supply companies constitute about thirty-three percent of all community water systems in the United States, they serve only about fifteen percent of the customers (measured in volume of water handled), take in only about fourteen percent of total water revenues, and hold only about eleven percent of all water system assets in the United States.[38] Nonetheless, in recent years privatization has become increasingly attractive to many cities or government (or quasi-government) water institutions, as evidenced by the growing number of contracts to privatize water services. According to one report, from 1997 to 2000, seventy cities entered into long-term contracts with private entities to operate and maintain their local water supplies or wastewater systems.[39] As of 1997, though, only slightly more than one half of the states had any private contract operation-and-maintenance water systems at all, and the bulk of those systems were in Texas and Puerto Rico, together comprising over sixty percent of all such systems nationally and over forty-six percent of the water supplied by such systems.[40]

2. The Types of Privatization[41]

One of the most critical things to understand about water privatization is that it takes several different forms. At the most limited level, a public water supply entity may "outsource" responsibility for one or more specific services normally provided by the public agency, such as billing and collection, routine maintenance, environmental services, training, technology upgrading and maintenance, procurement management, or other such tasks.[42] Contracting with private providers for specific services is widely used, and not discussed extensively in this article.

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38. National Research Council, *supra* note 1, at 2-3, 15.

39. Johnson, *supra* note 1, at 4-5.

40. The Reason Foundation, Privatization Database, *Water Services*, Table 1: Contract O&M Water Systems, 1997, *at* http://www.privatization.org/database/policyissues/water_local.html (last visited Feb. 3, 2005).

41. For discussions of the types of privatization of municipal water services and systems, *see* National Research Council, *supra* note 1, at 15-23, 56-80; Gleick, *supra* note 1, at 26-28; Johnson, *supra* note 1, at 1-2, 11-14; Haarmeyer, *supra* note 13; Vitale, *supra* note 1, at 1386-90.

42. *Id.*

At the next level, a public entity may contract with a private entity to fully operate, maintain, and manage its water supply system or some significant portion of it (OMM contact).[43] A third type of contract is the design-build-operate (DBO) contract, by which a private entity agrees to design and build needed water facilities and to operate them for the public entity.[44] These last two levels may be written as service contracts, licenses, or leases, with some variation in the legal rights and allocation of risks associated with each. Nonetheless, in both types of arrangements the city or public entity retains ownership of its water system. In addition, the city is often involved in financing of infrastructure development and improvements due to the tax advantages of tax-exempt municipal bonds, but with the expertise and cost-efficiencies of the private participant. In notable yet rare examples involving Atlanta, Tampa, and Cranston, Rhode Island, a city may enter into a design-build-own-operate-transfer (DBOOT) contract, in which the private entity finances and engages in the design, building, and operation of the facility as a private owner, and then transfers it to the city at a particular time.[45] DBOOT contracts place more of the risk on the private entity than do DBO contracts. The final type of privatization is a sale of an existing municipal or water district water system, or some of its assets, to a private firm.

3. The Forces Pushing Privatization

The forces behind privatization are numerous. Municipalities face significant financial limits in making the enormous investments required to meet both public demands for water and regulatory requirements regarding the quality of drinking water and treatment of wastewater.[46] Much of the current water service infrastructure in the United States is aging or obsolete. The American Water Works Association estimates the necessary investment in replacing water infrastructure in the U.S. to be $250 billion over the next thirty years.[47] The U.S. Environmental Protection Agency estimates needed infrastructure investment to be $140 billion over the next twenty years.[48]

Two significant reasons for the large investments needed in water systems are the failure of municipalities and public entities to make major investments during the life of aging facilities (often due to other demands for public finance, the desire to keep water rates low, and limited legal and financial capacity to engage in debt-financing),[49] and the increasingly stringent federal requirements for drinking water quality under the Safe

43. *Id.*

44. *Id.*

45. National Research Council, *supra* note 1, at 21.

46. *See generally id.* at 3-4, 18-19; Harrer, *supra* note 1; Lavelle, *supra* note 3; Maggs, *supra* note 3; Ted Sherman, *Liquid Assets – For Those Seeking New Markets, Water Systems Are a Potential Money Machine*, STAR-LEDGER (Newark, N.J.), Oct. 1, 2003, at 27; Vitale, *supra* note 1.

47. National Research Council, *supra* note 1, at 3.

48. *Id.* at 18.

49. *See* sources cited *supra* note 29.

Drinking Water Act.[50] Many small and medium sized publicly-owned utilities (i.e., serving populations of 50,000 or less) lack the financial capacity and scale of operations to make the imminent investments required without immediate, severe rate increases for water service (and in some cases lack the capacity to engage in such large capital improvements even with immediate, severe rate increases).[51] Private firms, generally subsidiaries of large multinational or national water corporations, may have the financial strength, construction efficiencies, and operational economies-of-scale to upgrade and operate public water supplies through design, build, and operate (DBO) contracts more efficiently than public entities.

Another force behind privatization was a change in the tax treatment of private operation of municipal water systems. Historically, public water systems have had a tax advantage over private water systems, because of the tax-exempt status of interest on state and local bonds.[52] The advantage ranges from two to three percentage points.[53] If a private entity purchased or even entered into a contract to operate a public water supply funded by public tax-exempt bonds, the tax benefits would be lost.[54] There was an exception for five-year operation and maintenance contracts, provided that the contract included a termination clause allowing cancellation after three years.[55] Three-year contracts provide insufficient incentives for many firms to operate facilities financed with tax-exempt bonds.

However, in 1997, the Internal Revenue Service issued Revenue Procedure 97-13, which maintains the tax-exempt status of bonds financing public water works that are subject to private operation and maintenance contracts for up to twenty years in length.[56] Under the new rules, though, a contractor may not share in any net profits from their operation of the water system and may share in cost savings or revenue enhancements, but not both.[57] These limits are designed to prevent abuse of tax-exempt financing of public water supplies.[58] There is some discussion in Washington, D.C. of possible changes to the Internal Revenue Code to allow more equal treatment of private utilities and public utilities, but whether or not such

50. Safe Drinking Water Act of 1977, 42 U.S.C. §§ 300(f) to 300(j)-26 (1996); *See also* National Research Council, *supra* note 1, at 3, 37, 47-48; Correll, *supra* note 3; Lavelle, *supra* note 3; Vitale, *supra* note 1, at 1382-84.

51. *See* sources cited *supra* note 29.

52. I.R.C. § 103(a) (2004).

53. National Research Council, *supra* note 1, at 27-28.

54. I.R.C. § 103(b)(1) (2004); I.R.C. § 141 (2004).

55. Treas. Reg. § 1.141-7(c), (f) (2002).

56. Rev. Proc. 97-13, 1997-1 C.B. 632.

57. *Id.*

58. *Id.*

changes will occur is merely speculative.[59] A major change in the tax treatment of water utility financing could result in even greater privatization of water services in the United States.

Similarly, Executive Order 12803, signed by President Bush in 1992, abolished the requirement that private firms have to repay the federal government in full for federal investments in public infrastructure that is subsequently sold to a private firm.[60]

In addition, many private water suppliers that have promoted privatization of municipal water services have highlighted their predictions of lower operating costs and increased operating efficiencies when making proposals, and have pointed to their successes in achieving lower operating costs and increased operating efficiencies with other public water systems.[61] As discussed below in Part IV (B), a comprehensive review of the evidence as to whether private water suppliers or public water suppliers in the United States are more efficient than the other is inconclusive. However, it is clear that some private firms can operate some public water supply systems substantially more efficiently than the government entities that have been or were operating them. For example, a National Association of Water Companies study of twenty-nine water privatizations showed operating cost savings from ten to forty percent, sometimes avoiding planned rate increases and providing more funds for capital improvements.[62]

Furthermore, even where localities have not privatized water services, privatization has had beneficial effects by creating competitive incentives for public water managers to improve performance and efficiencies and providing benchmarks for performance.[63]

Finally, the 1980's to the present have seen a surge in political forces favoring privatization generally and a decreased role for government.[64] Private-market advocates like the Reason Foundation have produced policy reports and studies supporting increased privatization of many government functions, including public water supply and wastewater treatment services.[65] Their arguments, often grounded in a combination of economic and political theory, have been supported by political leaders sympathetic to

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59. *See, e.g.*, 2001 TNT 150-24; 98 TNT 85-102; 98 TNT 85-101. *See also* National Research Council, *supra* note 1, at 28; Vitale, *supra* note 1, at 1391, 1393.

60. Exec. Order No. 12,803, 3 C.F.R. 296 (1993).

61. *See, e.g.*, United Water, *supra* note 6; Elizabethtown Water Company, *Privatization Successes*, *available at* http://www.sap.com/industries/utilities/pdf/50025902.pdf (last visited Feb. 3, 2005) (explaining in an illustrated twelve page brochure the actions and ultimate successes of Elizabethtown Water).

62. National Association of Water Companies, *Public Water Supply Facts* (1999) (on file with the author).

63. National Research Council, *supra* note 1, at 4, 58-59; Monica Maldonado, *Public Water in Private Hands*, 67(1) CIV. ENG'G 49 (1997).

64. *See, e.g.*, PRESIDENT'S COMMISSION ON PRIVATIZATION, *supra* note 4; sources cited *supra* note 13.

65. *See* sources cited *supra* notes 7, 13.

reducing government, bolstering the private sector, or stretching public funds.[66]

4. The Response to Privatization

Nonetheless, the trend towards privatization has suffered some major setbacks recently. Most notably, in 2003, Atlanta retook control of its water system from United Water after 4 years of complaints about poor quality of service, maintenance backlogs, and a rate increase.[67] Atlanta's privatization experiment was largely seen as a test of whether privatization of large urban water systems would work well.[68] In 2003, Phoenix's decision to privatize part of its water system fell apart when its top bidder encountered financial problems due to its parent company's top executives looting the company.[69]

In 2000, Indianapolis moved to condemn by eminent domain its water utility, which had been privately owned since 1881, but it also contracted out operation of the system to a private firm (i.e., a move from private ownership to public ownership with private operation).[70] Lexington-Fayette's (Kentucky) combined city-county government has made moves towards repurchasing its local water facilities from American Water Works, which has mounted a public relations campaign opposing the effort.[71]

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66. *See, e.g.*, National Research Council, *supra* note 1, at 19; Luoma, *supra* note 3; Maggs, *supra* note 3; Mays, *supra* note 4; Sherman, *supra* note 46; Vitale, *supra* note 1, at 1384.

67. Milo Ippolito, *Atlanta Takes Over Water System, Huge Utility With Aging Pipes Back Under City Control*, ATLANTA J. CONST., Apr. 30, 2003, at B5.

68. For the history of Atlanta's woes with United Water, see *supra* note 67; Martha Carr, *Water Woes in Atlanta a Cautionary Tale for N.O.; Privatizing Doable, Not Cure-All, City Told*, NEW ORLEANS TIMES-PICAYUNE, June 29, 2003, at 01; Maggs, *supra* note 3; D.L. Bennett, *Water Utility Equipment to Go on Auction Block, Atlanta to Bid on Backhoes, Trucks, Chairs*, ATLANTA J. CONST., July 30, 2003, at B4; D.L. Bennett, *Auction No Winner for City Bids High on United Water Equipment*, ATLANTA J. CONST., Aug. 7, 2003, at JN3; Tedra DeSue, *Water Rates May Rise to Cover Debt, Atlanta Mayor Warns*, BOND BUYER, Oct. 16, 2003, at 4; Colin Campbell, *There's No Pot of Gold in More Privatization*, ATLANTA J. CONST., Nov. 2, 2003, at E2; Tedra DeSue, *Atlantans Beg City Council Not to Impose Huge Water Rate Hike*, BOND BUYER, Dec. 2, 2003, at 36; Ty Tagami, *City Council Guts Sewer Rate Plan*, ATLANTA J. CONST., Dec. 2, 2003, at A1; Harrer, *supra* note 1; Johnson & Moore, *supra* note 7; Lavelle, *supra* note 3; Luoma, *supra* note 3; Sherman, *supra* note 46.

69. Tom Zoellner, *Privatizing Water Hits Roadblock, Firm's Finances Put Phoenix Deal at Risk*, ARIZ. REPUBLIC, June 9, 2003, at B1; Tom Zoellner, *Water Plant Verdict Today; Phoenix Council Will Decide on Privatizing Supply*, ARIZ. REPUBLIC, July 3, 2003, at B4.

70. National Research Council, *supra* note 1, at 24; Maggs, *supra* note 3.

71. Public Citizen, *Reclaiming Public Assets*, *supra* note 14; Harrer, *supra* note 14; Anthony Lenze, *Liquid Assets*, PITT. POST-GAZETTE, Sept. 16, 2003, at C12; Teresa Ann Isaac, *Our Water Company . . . Our Profits*, Lexington-Fayette Urban County Gov't (Dec. 2, 2003), *at* http://www.lfucg.com/mtc/watercompany.asp (last visited Feb. 3, 2005); Coalition Against a Government Takeover, *Kentucky-American Water Company vs. A Forced Government Takeover: Facts About a Simple Choice* (on file with author).

In 2002, the New Orleans Water and Sewerage Board rejected a proposal to privatize its water and sewer system under strong pressure from citizen groups concerned about service and cost to low-income city residents, impact on city employees, compromise of environmental standards, and other public-impact issues.[72] The Mayor of New Orleans has replaced two Board members and a second effort at privatization is underway, but it remains bogged down in public opposition.[73]

Residents of Elizabethtown, New Jersey attempted to defeat the privatization of municipal water supply by a voter referendum, but a New Jersey court held that the state statute governing privatization of public water supplies evidenced a legislative intent that these decisions not be subject to public referendum.[74] However, a citizens' group was successful in overturning Stockton, California's water privatization contract for failure to complete an environmental impact report as required by the California Environmental Quality Act.[75] Following approval of Stockton's contract with OMI/Thames in February 2003, the voters of Stockton passed an initiative requiring that any new water privatization contracts be submitted to the voters for approval.[76]

Likewise, residential customers in the Santa Margarita Water District strongly opposed a proposal to privatize the district, serving suburban areas in Orange County, California. The opposition arose even after allegations of corruption among the public water district's directors, which were addressed with institutional changes. The residents/customers were concerned that a

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72. Public Citizen, *The Big Greedy*, *supra* note 14; Sherman, *supra* note 46; *S&WB Seeking Public's Feedback; Input to Help Shape Privatization Plan*, NEW ORLEANS TIMES-PICAYUNE, July 19, 2003, at 08; Martha Carr, *Forum Speakers Oppose Privatizing S&WB: Local Control Called Important*, NEW ORLEANS TIMES-PICAYUNE, July 23, 2003, at 01; Urban Conservancy, *Overview – Privatization of the Sewerage and Water Board*, *at* http://www.urbanconservancy.org/swb/overview 091102.html (last visited Feb. 3, 2005); Geoffrey F. Segal, *New Orleans Water Proposals Rejected*, Reason Foundation (Dec. 2002), *at* http://www.rppi.org/neworleanswater.html (last visited Feb. 3, 2005); Press Release, Public Citizen, Statement of Wenonah Hunter, *Consumer Groups Champion Defeat of New Orleans Privatization Bids* (Oct. 16, 2002), *available at* http://www.citizen.org/ pressroom/release.cfm?ID=1241 (last visited Feb. 3, 2005).

73. Martha Carr, *Water, Sewer Plan Called Fatally Flawed; But Privatization Isn't Dead Yet*, NEW ORLEANS TIMES-PICAYUNE, Sept. 3, 2003, at 01; Urban Conservancy, *supra* note 53, *available at* http://www.urbanconservancy.org/swb/overview091102.html (last visited Feb. 3, 2005).

74. *See* We the People Comm., Inc. v. City of Elizabethtown, 739 A.2d 430 (N.J. Super. Ct. App. Div. 1999).

75. Concerned Citizens Coalition v. City of Stockton, Case No. CV 020397, *ruling on pet. for mandamus* (Cal. Super. Ct. Oct. 17, 2003); California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000 et seq. (West 2004). For a history of the Stockton controversy, see Public Citizen, *Thirsting for Profits*, *supra* note 14; Brian Skoloff, *Stockton Water Deal Stirs Privatization Ire*, CONTRA COSTA TIMES (Walnut Creek, CA), Mar. 30, 2003, at 4. *See also "Concerned Citizens" Ask Courts to Stop Stockton OMI-Thames Deal*, *at* http://www.waterindustry.org/New%20Projects/ stockton-ca-19.htm (last visited Feb. 3, 2005); *OMI-Thames Stockton Privatization Stopped by Superior Court*, *available at* http://www.waterindustry.org/New%20Projects/stockton-ca-20.htm (last visited Feb. 3, 2005); *Stockton Water Privatization Ruling a "Victory" for Democracy*, Oct. 27, 2003, *at* http://www.pacinst.org/topics/water_and_sustainability/water_privatization/stockton/ (last visited Feb. 3, 2005); Maggs, *supra* note 3.

76. *OMI-Thames Stockton Privatization Stopped by Superior Court*, *available at* http://www. waterindustry.org/New%20Projects/stockton-ca-20.htm (last visited Feb. 3, 2005).

lack of oversight by the California Public Utilities Commission and the monopoly characteristics of a water provider would result in poorer service for higher costs. As a result, the Orange County Local Agency Formation Commission (LAFCO) voted to reject the privatization proposal.[77]

Nationally, various environmental groups and social justice groups have expressed concerns about water privatization in the United States, prepared studies, and called for greater public scrutiny and control.[78]

III. LEGAL AUTHORITY AND LIMITS

A. Legal Authorization of Privatization

In general, most states have legal authority for municipalities or other public entities to enter into contracts with private entities to supply water to the public. Many states have statutes expressly authorizing the sale, lease, or long-term operational contracting of public water works facilities.[79]

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77. Fauconnier, *supra* note 1, at 57-59.

78. *See, e.g.*, Gleick, *supra* note 1; Lenze, *supra* note 71; Texas Living Waters Project, *Privatization of Water and Wastewater Services, Issue Paper No. 6, at http://www.texaswatermatters.com/pdfs/water_planning_committee6.pdf* (last visited Feb. 3, 2005); Harrer, *supra* note 1; United Church of Christ, *supra* note 14; Urban Conservancy, *supra* note 72; sources by Public Citizen cited *supra* note 14.

79. *See generally* V. Woerner, *Power of Municipality to Sell, Lease, or Mortgage Public Utility Plant or Interest Therein*, 61 A.L.R.2d 595 (1999), at § 3b (citing cases where state statutes conferring power upon municipalities to sell public utilities have been held constitutional); MCQUILLIN MUN. CORP. § 10.05 (3d ed. 1997 & Supp. 2001) (referencing statutes in Kentucky, New Jersey, Texas, and Utah). *See, e.g.*, CAL. PUB. UTIL. CODE § 10061 (West 2004) (authority to lease, sell, or transfer municipally owned water service utilities); COLO. REV. STAT. ANN. § 30-35-202 (West 2004) (power to sell public works and sell or lease property); DEL. CODE ANN. tit. 26, § 215 (2004) (concerning the merger, mortgage, or transfer of public utilities property); GA. CODE ANN. § 36-37-7 (2004) (authorizing disposal of public utility plants or properties); IDAHO CODE § 50-326 (Michie 2004) (providing procedures to the leasing and selling of water, light, power, and gas plants); 220 ILL. COMP. STAT. ANN. 5/7-102(c) (West 2004) (requiring commission approval for transactions to assign, transfer, lease, mortgage, sell franchises, licenses, permits, plant, equipment, business, or other property); IND. CODE ANN. §§ 8-1.5-2-29 to -32 (West 2004) (authorizing waterworks leases); IND. CODE ANN. § 8-1-2-83 (governing the franchise, sale, transfer, assignment, or encumbrances of utilities generally); KY. REV. STAT. ANN. §§ 107.700-107.770 (Banks-Baldwin 2004) (authorizing privatization of water and wastewater improvements); LA. REV. STAT. ANN. § 33:4341 (West 2004) (governing the sale or lease of revenue-producing utility property); MINN. STAT. ANN. § 216B.50 (West 2004) (providing restrictions on property transfer and merger of public utilities); OKLA. STAT. tit. 11 §§ 35-201 to -205 (2004) (sales or lease of municipally owned public utility); S.D. CODIFIED LAWS § 9-39-36 (Michie 2004) (granting municipal power to sell, lease, or grant operating contract for utility); TEX. WATER CODE ANN. §§ 13.511-13.515 (Vernon 2004) (granting powers to privatize sewage treatment and disposal); UTAH CODE ANN. §§ 73-10d-1 to -7 (2004) (allowing government projects for the private ownership or operation of water and wastewater facilities and services); WASH. REV. CODE § 35.94.010 (2004) (granting authority to sell or let any public utility works, plant, or system); WASH. REV. CODE § 54.16.180 (2004) (providing

The best source of legal authority for privatization is a comprehensive, detailed state statute that not only specifies what types of privatization are authorized, but also mandates specific standards, conditions, and procedures to govern local privatization of municipal water services. For example, the New Jersey Legislature enacted the New Jersey Water Supply Public-Private Contracting Act,[80] which provided clear legal authority for public-private contracts for operations and maintenance or operations, maintenance, and management in such localities as Allamuchy, Camden, Edison, Elizabeth, Hoboken, Jersey City, Manalapan, Manchester, North Brunswick, Rahway, and Wildwood, among others. However, many state statutes authorize privatization and may even exempt a private operator of a public water system from public utility regulatory review, without providing significant oversight or limits on privatization in practice.

In other states, courts have historically upheld the inherent power of cities to enter into contracts with private firms concerning public utilities, with some significant exceptions. The powers of cities or other political subdivisions to contract with private entities for performance of specific functions like billing, certain maintenance and upkeep services, computerization of customer records, and environmental monitoring are not in doubt.[81] However, the lease or sale of a public water utility, or arguably its equivalent, a long-term contract to operate, maintain, and manage a public water utility – is a more complicated question without express statutory authority. Historically, jurisdictions were split as to whether or not a municipality or other public entity had the power to sell or lease a public water works system without express statutory authority, although the passage of statutes in many states resolved the confusion there.[82] A recent Pennsylvania case reflects the trend of courts to allow sales, leases, and long-term contracts, even in the absence of statutory authority, on the theory that water services are a proprietary, not governmental, function of municipalities and therefore can be transferred to private entities.[83] Nonetheless, there is some judicial authority recognizing a public trust in a city's water system, prohibiting city officials from avoiding their trust duties to the public by transferring their powers or duties to private entities.[84]

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for the sale, lease, or disposition of properties, equipment, and materials by public utility districts); *see also* Correll, *supra* note 3 (discussing trend towards state authorization of water privatization).

80. New Jersey Water Supply Public-Private Contracting Act, N.J. STAT.ANN. §§ 58:26-19 - :26-27 (West Supp. 2004).

81. Mays, *supra* note 4, at 44 ("It is now well-settled that cities are free to contract with private entities for the performance of governmental services.").

82. Woerner, *supra* note 79, at § 2b, 2e; MCQUILLIN MUN. CORP. §§ 35.32, 35.36, 35.40 (3d ed. 1997 & Supp. 2001).

83. Boyle v. Mun. Auth., 796 A.2d 389 (Pa. Commw. Ct. 2002).

84. Pikes Peak Power Co. v. City of Colorado Springs, 105 F. 1 (8th Cir. 1900); Huron Waterworks Co. v. Huran, 62 N.W. 975 (S.D. 1895).

B. Legal Limits on Privatization[85]

State statutes may also impose limits on the privatization process. Even though a comprehensive statutory system of public input and regulatory substantive review of privatization contracts may preempt voter control over privatization via public referendum,[86] statutory requirements themselves may ensure public input. These statutes might include open government laws, such as open meetings and open records laws,[87] as well as statutes that mandate particular procedures for public hearings on municipal or water district decisions.[88]

State laws mandating assessment of environmental impacts of government actions might also apply. For example, a California trial court judge recently invalidated the City of Stockton's water privatization agreement for failure to prepare an environmental impact report under the California Environmental Quality Act (CEQA).[89] The court's opinion observed that private firms make decisions on the basis of profit motive, not the broader set of informed planning objectives that must be considered under CEQA. The court held that it was reasonably foreseeable substantial changes to operations and facilities would be made under a privatized arrangement that could affect the natural environment.[90]

State statutory or constitutional limits on replacement of the civil service workforce with private contractors[91] might apply to water service privatization arrangements. However, the recent use of such an argument by Atlanta public employees against Atlanta's privatization agreement failed because, according to the court, budget concerns necessitated privatization.[92]

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85. For a discussion of constitutional limits on privatization generally, see Clayton P. Gillette & Paul B. Stephan III, *Constitutional Limitations on Privatization*, 46 AM. J. COMP. L. 481 (1998).

86. We the People Comm. Inc. v. City of Elizabethtown, 739 A.2d 430 (N.J. Super. Ct. App. Div. 1999).

87. *See, e.g.*, Ralph M. Brown Act, CAL. GOV'T CODE §§ 54950-54962 (Deering 1987 & Supp. 2003) (requiring generally public commissions, boards, councils, and agencies to conduct open meetings); Texas Open Meetings Act, TEX. GOV'T CODE ANN. §§ 551.001-551.146 (Vernon 1994 & Supp. 2004-05). *See also* Peter G. Guthrie, Annotation, *Validity, Construction, and Application of Statutes Making Public Proceedings Open to the Public*, 38 A.L.R. 3d 1070 (1971 & Supp. 2004).

88. Both the Ralph M. Brown Act, sections 54950 to 54962, and the Texas Open Meetings Act, sections 551.001 to 551.146 contain procedural mandates.

89. Concerned Citizens Coalition v. City of Stockton, Case No. CV 020397, *ruling on pet. for mandamus* (Cal. Super. Ct. Oct. 17, 2003); California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000-21165 (Deering 1996 & Supp. 2004).

90. Concerned Citizens Coalition v. City of Stockton, Case No. CV 020397, *ruling on pet. for mandamus*, at 4-5 (Cal. Super. Ct. Oct. 17, 2003).

91. *See, e.g.*, Colo. Ass'n. of Pub. Employees v. Dep't of Highways, 809 P.2d 988 (Colo. 1991). *See generally* Featherstun, *supra* note 4, at 653-62.

92. Abedi v. City of Atlanta, 536 S.E.2d 255 (Ga. Ct. App. 2000). *See generally* Mays, *supra* note 4, at 44 (asserting that it is now well settled that contracting out municipal services does not violate civil services of state constitutions).

Furthermore, frequently private water contractors will agree to hire many or virtually all, of the city's water service employees, making the argument about impacts on the city's civil service workforce even harder to prove.[93]

Perhaps the best example of a useful state statutory constraint on water privatization contracts comes from the New Jersey Water Supply Public-Private Contracting Act (Act).[94] The Act is a streamlined, privatization-promoting version of the more cumbersome New Jersey Water Supply Privatization Act.[95] The Act requires that any city or other public entity seeking to enter into a contract with a private entity to operate and manage local water services must follow certain procedures and meet certain requirements.[96] These procedures include public notice, access to information, hearings, and opportunity to submit written comments.[97] They also include compilation of a detailed record about the proposal, including a negotiated contract.[98] Finally, they require submission of the proposal, contract, and record to three state agencies, all of which review these materials. Ultimately, two of these agencies must approve, conditionally approve, or deny the contract.[99] The authorizing and reviewing agencies are the New Jersey Board of Public Utilities and the Local Finance Board within the New Jersey Department of Community Affairs, and the reviewing agency is the New Jersey Department of Environmental Protection.[100] The criteria for approving or denying the contract include the financial and technical capabilities of the private contractor; the reasonableness of the contract terms; the protection of the public/water customers from risks or subsidization of the contract; the financial terms for the city and impact of the contract on its ability to repay its indebtedness; and inclusion of statutorily required terms (i.e., subjects that must be addressed by the contract).[101] The three state agencies must make their reviews and/or decisions within sixty days after receiving a completed application.[102] This process, while not addressing all the issues that arise with water privatization, has worked well in New Jersey and could provide a useful starting point to many other states as a model of review and accountability mechanisms to guide water privatization.

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93. *See infra* Part IV (K).

94. New Jersey Water Supply Public-Private Contracting Act, N.J. STAT. ANN. §§ 58:26-19 to -27 (West Supp. 2004).

95. New Jersey Water Supply Privatization Act, N.J. STAT. ANN. §§ 58:26-1 -:26-18 (West 2004).

96. New Jersey Water Supply Public-Private Contracting Act, N.J.S.A §§ 58:26-20 - :26-22.

97. *Id.* at §§ 58:26-23(a), (b), (d), 58:26-24.

98. *Id.* at §§ 58:26-23(e), - :26-24(b), (d).

99. *Id.* at §§ 58:26-24(f) - :26-25.

100. *Id.* at §§ 58:26-21 - :26-25.

101. *Id.* at §§ 58:26-25(c), (d).

102. *Id.* at § 58:26-25(a).

IV. ISSUES IN PRIVATIZATION OF PUBLIC WATER SERVICES

A. Unique Characteristics of Public Water Services

Provision of water supplies and services to the public is not like the typical provision of goods and services by private firms or even the typical government function that can be privatized. Water service is unique in several respects. First, a sufficient, clean, and reliable supply of drinking water is a necessity of life. Moreover, most Americans are completely dependent on a single local provider for their access to a sufficient, clean, and reliable supply of drinking water. As history has shown, inadequate planning and infrastructure, mistakes, or carelessness can result in risks and harms to human health, epidemics, deaths, and declines of entire civilizations.[103] Problems with a private water supplier's quality, quantity or reliability of water supply to the public can have devastating consequences, not be merely a market glitch.

Second, water is not always a renewable resource in practice. Depletion of water resources result from: (1) groundwater extractions at a rate higher than recharge; (2) contamination of both surface water and groundwater sources; (3) diversions of surface waters that exceed flows from feeder sources and threaten both water quality and the physical characteristics of the water body; and (4) consumption patterns that exceed the capacity of the water basin or the region to accommodate them.[104] As a study by the Pacific Institute for Studies in Development, Environment, and Security points out, water is not only an economic good but also a social good, and is not only a

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103. *See, e.g.*, J. DONALD HUGHES, AN ENVIRONMENTAL HISTORY OF THE WORLD: HUMANKIND'S CHANGING ROLE IN THE COMMUNITY OF LIFE 31-33 (2001); National Research Council, *supra* note 1, at 29-40; JUDD, *supra* note 29, at 32-34; Bakker, *supra* note 13; Fauconnier, *supra* note 1; Lavelle, *supra* note 3; Fen Montaigne, *Water Pressure* 202(3) NAT'L GEOGRAPHIC 2, 2, 15-16 (2002); Jeffrey E. Richey, *Spatial Techniques for Understanding Commons Issues*, *in* PROTECTING THE COMMONS: A FRAMEWORK FOR RESOURCE MANAGEMENT IN THE AMERICAS 273-91 (Joanna Burger et al. eds., 2001); Rosenblum, *supra* note 3; Charles J. Vorosmarty et al., *Global Water Resources: Vulnerability from Climate Change and Population Growth*, SCI., at 284-88 (2000) *available at* http://www.geog.umd.edu/homepage/courses/639D/vorosmarty.pdf (last visited Feb. 3, 2005).

104. *See generally* Craig Anthony (Tony) Arnold, *Introduction: The Fragmentation and Integration of Land Use and Water*, in WET GROWTH, *supra* note 32, at 1-55 [hereinafter Arnold, *Land Use and Water*]; ROBERT JEROME GLENNON, WATER FOLLIES: GROUNDWATER PUMPING AND THE FATE OF AMERICA'S FRESH WATERS (2002); DAVID M. GILLILAN & THOMAS C. BROWN, INSTREAM FLOW PROTECTION: SEEKING A BALANCE IN WESTERN WATER USE (1997); SANDRA POSTEL, LAST OASIS: FACING WATER SCARCITY (2d ed. 1997); MARC REISNER & SARAH BATES, OVERTAPPED OASIS: REFORM OR REVOLUTION FOR WESTERN WATER (1990); David H. Getches, *The Metamorphosis of Western Water Policy: Have Federal Laws and Local Decisions Eclipsed the States' Role?*, 20 STAN. ENVTL. L.J. 3 (2001); Lavelle, *supra* note 3; Richey, *supra* note 103; A. Dan Tarlock & Sarah B. Van de Wetering, *Growth Management and Western Water Law: From Urban Oases to Archipelagos*, 5 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 163 (1999).

renewable resource but also a non-renewable resource.[105] Private water suppliers generally plan for return on their investment, not for long-term public goals and interests.

Third, water service in a particular geographic area is typically a monopoly.[106] Due to the costs associated with constructing systems of acquiring, treating, and delivering water supplies to a local community and the public interest in avoiding duplication, most states have granted municipalities or privately-owned water utilities monopolies in their service areas.[107] As a result, customers are often at the mercy of the water service provider, who is constrained from charging exorbitant rates either by political pressures of customer-voters if the provider is public, or regulatory oversight of state public utility commissions if the provider is private.[108]

Lastly, a municipality's or water district's decision to shift from public ownership and operation to private operation and/or ownership has the potential for "sell out" of the public interest in a one-sided contract due to political influence, unequal bargaining power, or corruption. According to the National Research Council of the National Academy of Sciences, "[a] review of media coverage in competitive bid processes [for water privatization] such as those in Birmingham, Atlanta, and New Orleans reveals charges that political favors were granted in connection with these bids."[109] Also, a review of several privatization contracts show widespread divergence among localities as to the contracts' protections of the public, scope and comprehensiveness, performance standards, and coverage of issues like modification, termination, and dispute resolution. For example, the text of Baton Rouge, Louisiana's fifty-year franchise to the Baton Rouge Water Works Company is only three and one half pages in length, while the operation, maintenance, and management agreement between Manalapan Township, New Jersey, and United Water Mid-Atlantic, Inc. numbers seventy-three pages plus attachments and a three-page amendment.[110] The

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105. Gleick, *supra* note 1, at 5-8; *see also* Bakker, *supra* note 13; Rosenblum, *supra* note 3.

106. LEONARD S. HYMAN ET AL., THE WATER BUSINESS: UNDERSTANDING THE WATER SUPPLY AND WASTEWATER INDUSTRY 23 (1998). *See also* Sherman, *supra* note 46; Ass'n of California Water Agencies, *Briefing Paper on Stephen P. Morgan and Jeffrey I. Chapman, Issues Surrounding the Privatization of Public Water Service* (Dec. 1996), *at* http:www.acwanet.com/mediazone/research/uscpriv.asp (last visited Feb. 3, 2005) (noting that water service is a natural monopoly, and it is expensive and inefficient to have more than one service provider in a given geographic area).

107. *See, e.g.*, Water Dist. Number 1 v. Mission Hills Country Club, 960 P.2d 239 (Kan. 1998) (upholding exclusive right of water district to serve customers in its service area); Scenic Hills Util. Co. v. City of Pensacola, 156 So. 2d 874 (Fla. Dist. Ct. App. 1963) (discussing a state law that authorized an exclusive franchise for the operation of water and sewage utilities); Alderwood Water Dist. v. Pope & Talbot, Inc., 382 P.2d 639 (Wash. 1963) (discussing a statutory prohibition against overlapping water districts, which carried the implication that one water district should not infringe upon the territorial jurisdiction of another district).

108. *See infra* Part IV (C). *See also* National Research Council, *supra* note 1, at 86-96; Lenze, *supra* note 71.

109. National Research Council, *supra* note 1, at 26; *see also* Luoma, *supra* note 3.

110. *Compare* Baton Rouge, La., Ordinance 3673 (Feb. 9, 1977) *with* Agreement for Public/Private Partnership and Operation, Maintenance and Management Services for the Manalapan Township Water Service Area (Nov. 15, 1996) *and* Amendment to Agreement for Public/Private

length of an agreement does not necessarily reflect whether it protects the public's interest in critical issues. However, it is clear that city officials "sold" on a privatization proposal as a quick-fix to public infrastructure financing and operating deficiencies may be less than diligent in protecting the public's interest – and arguably the public trust – regarding municipal water supply.

Given the unique nature of privatization of public water supplies, certain issues are universally regarded as critical for localities and states to address in authorizing and regulating water privatization. These are issues not only identified by independent experts and skeptics of privatization, but also by the private water industry and advocates for privatization.

B. Operational Efficiency and Capital Cost Savings

The issue that cities or water districts initially face when deciding whether or not to privatize is whether or not a private firm will really save money in capital costs and/or operations. The common – but simplistic – wisdom among advocates for privatization, and perhaps even among some policy makers, is that private firms both construct and operate water supply systems more cost-effectively than do public entities.[111] However, two economists' comprehensive review of all of the empirical studies by independent researchers comparing private and public water utilities in the United States show inconclusive results.[112] Four studies found that private utilities have lower costs or are more efficient, while five studies found that public utilities have lower costs or are more efficient. Three studies show no difference in costs or efficiency.[113] The economists note that the most informative study illustrates that the size of the utility makes a difference, with large-scale public utilities operating more efficiently than large-scale private utilities, but small-scale public utilities operating less efficiently than small-scale private utilities.[114]

Thus, private utilities are not necessarily more efficient than public utilities. Instead, the specific benefits of each proposed plan of privatization must be analyzed. Although reports show cost savings of between ten and forty percent, and resulting increases in capital available to localities for

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Partnership and Operation, Maintenance and Management Services for the Manalapan Township Water Service Area (Mar. 24, 1999) (all three documents on file with author).

111. Neal, *supra* note 1; Johnson, *supra* note 1; Vitale, *supra* note 1; Water Partnership Council, *supra* note 7.

112. STEVEN RENZETTI & DIANE DUPONT, THE RELATIONSHIP BETWEEN THE OWNERSHIP AND PERFORMANCE OF MUNICIPAL WATER UTILITIES 8-9, 15 (2002), *available at* http://139.57.161.145/papers/2002_10_DD_SR.pdf (last visited Feb. 3, 2005).

113. *Id.*

114. *Id.*

infrastructure or other public goods, recent privatization experiences in the United States demonstrate that the benefits of privatization vary greatly.[115] These variations depend on the size and scope of the city's water service operation, the financial and political condition of the city government, the potential for changing municipal management and operations to increase efficiency, the private provider's size, financial condition, management strengths and weaknesses, operational efficiencies, experience with similar water systems, and corporate culture; the customers' consumption patterns, and other factors.

There must be a careful scrutiny of assertions of proposed savings. Private water suppliers or city officials committed to a privatization proposal may predict savings based on faulty methods, inaccurate assumptions, or comparisons to other privatizations that are incomparable. Two examples illustrate the potential problems. First, the Reason Foundation issued a study comparing the performance of three privately-owned water utilities in California with ten government-owned utilities in California, which demonstrated that the privately-owned utilities were more efficient than the publicly-owned utilities.[116] The report has been used to argue for the superiority of privatization generally. However, the report has been roundly criticized as comparing "apples" and "oranges" in at least two respects: 1) the government-owned utilities that were studied depend mostly on surface water, which is substantially more expensive than the groundwater on which the privately-owned utilities rely; and 2) ten different government units together comprise the same approximate size of the three private utilities together, thus meaning that each private utility has a substantially larger scale than is typical of each of the ten government units.[117] In addition, the total sample size was small and region-specific.

Second, an independent review of the analysis performed by Alternative Resources Incorporated (ARI) for Stockton, California's water privatization proposal showed arguable underestimation of inflation based on assumptions instead of historic figures. It also showed arguable overestimation of the City's energy expenditures, using the energy crisis year of 2001-02 as a baseline.[118] Similarly, the review contended that capital cost savings were overstated, because the entire system did not need to be privatized in order

115. Neal, *supra* note 1; United Water, *supra* note 6; Water Partnership Council, *supra* note 7; Elizabethtown Water Company, *supra* note 61; Sherman, *supra* note 46. *See also* Marie Rohde, *United Water Delivering Savings in 10-Year Contract*, MILWAUKEE J. & SENTINEL, June 16, 2003, at 4A; *see also* National Research Council, *supra* note 1, at 10-28 (discussing a wide variation in privatization successes and failures).

116. Neal, *supra* note 1. *See* discussion *supra* at Part II (B).

117. *See* discussion *supra* Part II (B); Fauconnier, *supra* note 1, at 57 ("Some argue that the Reason report's comparisons between public and private utilities were flawed, since most of the private utilities examined use groundwater as their main source of supply, while the public utilities in the study use mostly surface water, which is more costly for transportation and treatment.").

118. Gary H. Wolff, *Independent Review of the Proposed Stockton Water Privatization* (Pacific Inst. for Studies in Dev., Env't & Sec. 2003), *at* http://www.pacinst.org/topics/water_and_sustainability/water_privatization/stockton/stockton_privatization_review.pdf (last visited Feb. 3, 2005).

to capture most of the capital cost efficiencies associated with a treatment plant expansion.[119]

State legislation should mandate at least two stages to review of any proposal by a municipal or public water district to privatize the operations of all or most of its water service. The first stage is public opportunity to comment on studies supporting privatization. This includes public access to proposals, studies, and data used by the private water supplier, city, or independent consultants to assess the need for and impact of the proposed privatization. This first stage should allow for ample opportunity by the public to review and comment on these studies and data in writing, and a requirement that the governing body consider all comments and reviews that it receives and address any substantial criticisms of data, support, or methodology when reaching a final decision. The second stage is substantive review by a state regulatory agency. This stage should require that the proposed privatization be submitted for approval, conditional approval, or denial by an expert state regulatory agency, including assessment of predicted operational cost savings and capital cost savings, proposed rate plans, and environmental impacts, among other factors. The former is typical in California, with its strong history of public participation and environmental impact laws,[120] while the latter is typical in New Jersey under its water privatization statute.[121]

However, experience in both states shows that strict statutory time frames should be imposed to prevent the review process from simply becoming a process for defeat of privatization proposals by delay and cost.[122] Worthwhile privatization proposals that offer increased efficiencies

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119. *Id.*

120. *See, e.g.*, Ralph M. Brown Act, CAL. GOV'T CODE §§ 54950-61 (Deering 2004); California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000 et seq.; CAL. CIV. PROC. CODE § 425.16; CAL. GOV'T CODE § 6586.5(a)(2) (Deering 2004); CAL. HEALTH & SAFETY CODE §§ 25398(d)(2), 25398.6(j) (Deering 2004); Scott v. City of Indian Wells, 492 P.2d 1137 (Cal. 1972).

121. New Jersey Water Supply Public-Private Contracting Act, N.J. STAT. ANN. §§ 58:26-17 - :26-18.

122. *See, e.g.*, California Permit Streamlining Act, CAL. GOV'T CODE § 65920 (Deering 2004) (ordering mandatory statutory time frames for decisions on land use approvals, thus preventing abusive delay); New Jersey Water Supply Public-Private Contracting Act, N.J. STAT. ANN. § 58:26-13 (detailing a maximum 60-day review period for application, which is deemed approved if not acted on within this time frame). For examples of studies on the costs and problems associated with delay in government decision making, *see, e.g.*, RICHARD J. PIERCE, JR. ET AL., ADMINISTRATIVE LAW AND PROCESS § 5.9, 200-01 (2d ed. 1999); IRA S. LOWRY & BRUCE W. FERGUSON, DEVELOPMENT REGULATION AND HOUSING AFFORDABILITY 143-52 (1992) (documenting typical processing time for rezoning, subdivision approvals, and building permits for eight counties near Sacramento, CA, ten counties near Nashville, TN, and eight counties near Orlando, FL); RICE CENTER FOR COMMUNITY DESIGN AND RESEARCH, *The Cost of Delay Due to Government Regulation in the Houston Housing Market*, ULI RESEARCH REPORT NO. 28 (1979) (studying delay in housing construction due to utility district regulations); CHARLES THUROW & JOHN VRANICAR, PROCEEDINGS OF THE HUD NATIONAL CONFERENCE ON HOUSING COSTS, PROCEDURAL REFORM OF

and better environmental and water quality performance should not be stymied by process alone. While interested members of the public and regulators need adequate time to evaluate proposed privatization, substantive standards and outcomes – not red tape and procedural hurdles – should be the barriers to poor proposals. At the same time, the process must be sufficiently long and complete to allow a full and fair evaluation of the proposal and contract terms. Many examples of failed privatization efforts, such as Atlanta, involved rushed bidding and approval processes (in Atlanta's case, due to the mayor's political ambitions), failure to gather and evaluate detailed information, or failure to carefully negotiate and draft adequate contract terms.[123] In addition, another common theme of privatization failures is that quick approvals raise public suspicions and create ongoing public animosity towards the private water supplier.[124] In all of these instances, the costs saved up-front were greatly exceeded by the costs to all parties of a failed arrangement.

C. Rates

Customers of a public water system, and their elected officials, are often concerned with the impact of water privatization on rates for water service. If the system were to remain publicly operated, customers would have political influence over water system officials to keep rates reasonable (although arguably perhaps below market costs).[125] On the other hand, if the system were privately owned and operated, it would be subject in all but five states to public regulatory agency review of rates to protect consumers from excessive charges due to the monopoly situation and limited ability to reduce consumption due to human necessity.[126] However, where the public entity retains ownership of its water system but contracts with a private operator and manager, the private firm may be setting the rates without supervision or control from a state regulatory agency. In fact, several states have expressly exempted such arrangements from state utility commission regulation.[127] The result is that the private entity may be insulated from any sort of

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LOCAL LAND USE REGULATION 123, 126 (1979) ("Land use regulations are plagued by red tape which leads to unnecessary, prolonged delay or inaction."); Comment, *Participants' Experiences with Habitat Conservation Plans and Suggestions for Streamlining the Process*, 23 ECOLOGY L.Q. 369 (1996); Shirley Leung, *Streamlining City Charter May Help Business in L.A.*, WALL ST. J., Feb. 3, 1999 (Cal. ed.), at CA1 (comparing length of time to obtain conditional use permit or zoning change in Los Angeles with time in nearby cities of Anaheim and Burbank); Bette Sheldon, *Unheralded New Law Should Ease Developers' Delays and Frustrations*, SEATTLE TIMES, May 28, 1995, at B7 ("Projects have been subjected to multiple reviews, resulting in costly and time-consuming delays.").

123. For a history of Atlanta's privatization adventure, see sources cited *supra* note 68.

124. *Id.*; *see also* sources cited *supra* note 77 (chronicling public opposition to Stockton, CA water privatization).

125. National Research Council, *supra* note 1, at 86-88.

126. *Id.* at 94.

127. *Id.* at 97-99; *see also* Ann J. Gellis, *Water Supply in the Northeast: A Study in Regulatory Failure*, 12 ECOLOGY L.Q. 429 (1985).

constraints in rate-setting, except as provided in the operation, maintenance, and management contract with the city or water district.

The problem is not increased rates per se. Increased rates following privatization may be the result of profit-seeking behavior by a private controller of a monopoly without adequate rate controls,[128] but they may be the result of legitimate and perhaps necessary factors. Rate increases following privatization may be due to costs associated with expensive capital improvements, perhaps overdue system replacement and upgrade or perhaps modifications necessary to meet increasingly stringent water quality and environmental regulations.[129] Thus, rates would have likely increased (or alternatively taxes if tax revenues were used to subsidize water rates) even if the system had remained publicly owned and operated. Indeed, surveys of water utility customers show that they would be willing to pay significantly more for water that exceeds federal water quality standards.[130] Rate increases may also be due to efficient and conservation-minded efforts to price water at its true cost and to eliminate free-riding by nonpaying or underpaying customers.[131] Marginal-cost pricing principles, metering, and increasing block rate structures should be encouraged as means to promote water conservation.[132] Finally, private entities that do not enjoy the advantages of tax-exempt financing incur demonstrably greater costs associated with carrying debt than do public entities, and these additional costs may necessitate increased rates.[133]

The real issue is whether there are meaningful regulatory controls on rate increases to ensure that they reflect legitimate costs and allow for a reasonable return on investment, instead of exploiting the private monopolist's powerful rate-setting position. One option is for all private water companies owning or operating public water services in a state to be placed under the regulatory jurisdiction of the relevant public utility commission. A second option is for the terms of the privatization contract (i.e., sales contract, lease, OMM contract, DBO contract, franchise concession, etc.) to specify the standards for calculating or increasing rates,

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128. *See* HYMAN, *supra* note 108, at 23 (stating that public water supply is a natural monopoly); *see also* Lenze, *supra* note 71 (discussing rate increases when water services are privatized and the practice of private suppliers using predatory pricing to win contracts based on their lower rates during the bidding period and then raising rates after obtaining the contracts).

129. National Research Council, *supra* note 1, at 81-88; Lavelle, *supra* note 3.

130. National Research Council, *supra* note 1, at 43 (summarizing a study by the American Water Works Association Research Foundation).

131. *Id.* at 86-87; Sherman, *supra* note 46.

132. Barton H. Thompson, Jr., *Water Management and Land Use Planning: Is It Time for Closer Coordination?*, *in* WET GROWTH, *supra* note 32, at 95, 98, 103-04. *See* TERRY L. ANDERSON & PAMELA SNYDER, WATER MARKETS: PRIMING THE INVISIBLE PUMP (1997); POSTEL, *supra* note 104.

133. National Research Council, *supra* note 1, at 5, 88.

or to attach schedules of rates that are applicable under different specified scenarios. A third option is for the terms of the privatization contract to provide that the public entity shall set the rates or that the private entity cannot increase rates without the consent of the public entity. For example, Manalapan, New Jersey's OMM contract, and Hawthorne, California's lease, operation, and maintenance contract – both lengthy, detailed documents, unlike some other water privatization agreements – provided for some significant degree of municipal control over rates and rate increases.[134] However, it is advisable to have a legislatively required process by which a state agency reviews all privatization contracts for operation/management, lease, or sale to ensure that the contract provisions contain adequate provisions governing rates and any rate increases.

D. Service Quality and Reliability, and Water Quality

The public's greatest concern, though – far ahead of increased rates – is whether a private operator or owner of the local water system will provide high quality, reliable service. The public cares about the quality of its drinking water, including the presence of potentially harmful chemical and biological contaminants, clarity, odor, and taste. The public also cares about being able to count on a reliable supply of water, and efficient responses to service calls or service interruptions. Often with privatization proposals, there is a public fear that profit-seeking private companies will cut costs and thereby reduce service quality or safeguards to ensure water cleanliness. There is also a fear that a private entity with a local monopoly on water services will not be responsive to complaints from the public, whereas a public entity ignores its constituency at its own peril.

There is good reason for public concern based on some communities' experiences with water privatization, even though many communities receive clean, reliable supplies of water from private providers. For example, Atlanta's debacle with United Water turned on quality-of-service issues.[135] Tap water regularly ran a rusty brown color, and United Water had to issue numerous "boil orders" due to insufficient water pressure leaving the water unfit for human consumption without boiling.[136] United Water also had a maintenance problem with Atlanta's aged and failing water delivery infrastructure, accumulating a backlog of 14,000 work orders by the

134. *See* sources cited *supra* note 110; Agreement for Lease, Operation, and Maintenance of Real Property (Water System) and Lease of Groundwater Between the City of Hawthorne and California Water Service Company (Feb. 27, 1996) (on file with author).

135. Lenze, *supra* note 71, at C12; Ippolito, *supra* note 67, at B5; Carr, *supra* note 68, at 14; Maggs, *supra* note 3; Bennett, *Water Utility Equipment to Go on Auction Block, Atlanta to Bid on Backhoes, Trucks, Chairs*, *supra* note 68, at B4; Bennett, *Auction No Winner for City Bids High on United Water Equipment supra* note 68, at JN3; Desue, *Water Rates May Rise to Cover Debt, Atlanta Mayor Warns*, *supra* note 68, at 4; Campbell, *supra* note 68, at E2; Desue, *Atlantans Beg City Council Not to Impose Huge Water Rate Hike*, *supra* note 68, at 36; Tagami, *supra* note 68, at A1; Harrer, *supra* note 1; Johnson & Moore, *supra* note 7; Lavelle, *supra* note 3, Sherman, *supra* note 46.

136. *See* sources cited *supra* note 70.

summer of 2002.[137] A review of United Water's practices found that in order to cut costs so that it could operate within its astonishingly low bid parameters, the company was reducing the number of employees and the amount of training they received, which arguably further compounded the service delivery problems.[138]

A facility in Santa Paula, California, was raided by federal authorities in 2003 because, according to investigators, the facility's private operator, OMI, was violating terms of its discharge permit and had filed false water-quality reports.[139] OMI-Thames, owned by the German water conglomerate RWE, has been fined repeatedly in England for violations of environmental laws.[140] Incidents of poor water quality or poor service evoke images of private water companies operating in the nineteenth century in cities like Chicago, Los Angeles, and San Francisco, which provided notoriously inadequate water service for high rates, while making substantial profits to the public's detriment.[141]

One significant issue is whether private water companies have the financial strength to perform their contractual and public obligations. For example, in summer 2003 Phoenix had to eliminate a proposed contract with Earth Tech to privatize some of the city's water service and to re-evaluate its privatization goals when Earth Tech failed to obtain a letter from a bank guaranteeing a $20 million line of credit.[142] Earth Tech hit financial troubles because its parent company, the Bermuda-based Tyco International, allegedly had been looted by former top executives for up to $600 million.[143] Another example was an attempt by the infamous now-bankrupt Enron Corporation to form a private water service corporation, Azurix, in 1999, and offer publicly-traded stock in the corporation.[144] Azurix was unable to compete with well-established multinational water conglomerates, and within a little more than a year, it had lost $1 billion in market value and was deemed a failure by Enron.[145]

Despite the examples of quality failures among private water companies, there is no evidence that private operators or owners of public

137. *Id.*

138. *Id.*

139. Skoloff, *supra* note 77. A private sewer operator in Ellijay, Georgia also falsified water quality records for at least three years. Ellen Dannin, *To Market, To Market: Legislating Privatization and Contracting*, 60 MD. L. REV. 249, 254 (2001) (quoting Don Rudd, *Will Privatization Cause Costs to Soar?*, ST. LOUIS POST. DISPATCH, Nov. 26, 1887, at B7).

140. Skoloff, *supra* note 77; *see* Harrer, *supra* note 1.

141. Gleick, *supra* note 1, at 23; Fauconnier, *supra* note 1, at 51-53.

142. Zoellner, *supra* note 69, at B1, B4.

143. *Id.*

144. National Research Council, *supra* note 1, at 25 (Box 1-4).

145. *Id.* More generally, the financial viability of some private water ventures can be questionable. Lavelle, *supra* note 3.

water systems inevitably produce worse results regarding water quality and reliability than do government operators and owners of public water systems. In some notable examples, privatization has brought improved service over what the public entity was able to provide.[146] Often privatization is a means by which revenue-strapped localities can finance water system infrastructure improvements that are needed to comply with the federal Safe Drinking Water Act (SDWA).[147] In addition, private operators and owners of public water systems are required to comply with the SDWA, just as are public operators and owners, and are subject to federal and state enforcement.[148] Privatization highlights the need for strong, effective enforcement of the SDWA.

Nonetheless, the concerns over whether a profit-motivated, cost-cutting private water company will provide reliable, clean water to the public necessitate three approaches to water privatization. One is for the local governmental entity that is considering privatization bids to obtain comprehensive, detailed information about the bidders' qualifications, financial and operational capacity, and history of performance and environmental compliance with other communities. Public officials should carefully scrutinize and thoroughly question information that selectively highlights successes, but does not systematically identify performance in all systems operated by the bidder. EPA databases offer independent sources of information about SDWA compliance.[149] Public officials should also demand information regarding the financial practices, performance history, and environmental compliance history of the parent company of each bidder. This is crucial because the parent company's practices tend to influence and shape the practices of their subsidiaries, especially if the subsidiary has recently been acquired recently and is undergoing changes in structure, corporate culture and practices, and standard operating procedures. For example, if a community's water system operations were ultimately governed by a corporation like Enron, the ultimate impact on the public might be disastrous.

A second approach is for the local governmental to establish clear performance standards in the terms of the contract, enforceable by penalties for failing to meet baseline standards and enhanced by incentives for

146. *See* sources cited *supra* note 3.

147. *See* sources cited *supra* note 47.

148. Safe Drinking Water Act of 1977, 42 U.S.C. §§ 300f(1)(A), (2), (4)(A), (5), & 300g (1996); *see also* National Research Council, *supra* note 1, at 37, 91.

149. U.S. Environmental Protection Agency, *Local Drinking Water Information*, *available at* http://www.epa.gov/safewater/dwinfo.htm (last visited Feb. 3, 2005); U.S. Environmental Protection Agency, *Notices of Violation*, *available at* http://cfpub.epa.gov/compliance/resources/novs/ (last visited Feb. 3, 2005); U.S. Environmental Protection Agency, *Civil Enforcement: Cases and Settlements*, *available at* http://cfpub.epa.gov/compliance/resources/cases/civil (last visited Feb. 3, 2005); U.S. Environmental Protection Agency, *Criminal Enforcement: Cases and Settlements*, *available at* http://www.epa.gov/compliance/resources/cases/criminal/index.html (last visited Feb. 3, 2005); U.S. Environmental Protection Agency, *Drinking Water Data and Databases*, *available at* http://www.epa.gov/safewater/databases.html (last visited Feb. 3, 2005); U.S. Environmental Protection Agency, *Safe Drinking Water Information System/State Version*, *available at* http://www.epa.gov/safewater/sdwis_st/state.htm (last visited Feb. 3, 2005).

exceeding standards by specified levels or degrees. The contract should contain provisions for modification or termination of the arrangement if failure to meet standards occurs frequently enough as to constitute a substantial breach of the contract. For this reason, privatization arrangements of leasing, DBO contracts, and OMM contracts are preferable to outright sale of a public water system to a private entity.

A third approach is to require the private operator to establish a well-designed system for receiving and responding to customer complaints. At the same time, the public entity should recognize that it will receive far more complaints, including first-contact complaints, from upset customers than will the private entity, especially in the first two years following the commencement of the private arrangement. Prior to the commencement of the private arrangement, the public entity should establish a system to receive customer/public complaints about water service and then forward them to the private operator. In addition, the private operator should be required to submit to public officials monthly summary reports on the types of complaints received, their resolution, and the speed with which they were resolved. With this reporting requirement, public officials will be able to monitor progress towards performance goals and potential problems before they grow.

E. Take-or-Pay Contracts

Some private water utilities are advocating take-or-pay contracts, in which the city is obligated to pay for a minimum amount of water usage, regardless of whether consumers actually use that minimum amount.[150] Although these take-or-pay provisions are designed to minimize risk to the private provider from losses due to market-based, rate-based, or conservation-based dips in consumer demand, they discourage conservation of water resources.[151] Promotion of conservation and discouragement of waste is a matter of state law and state water policy in many jurisdictions.[152]

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150. Texas Living Waters Project, *supra* note 80 (recommending the careful evaluation of "take-or-pay" contracts for raw water or water services); *see also* RONNIE COHEN ET AL., ENERGY DOWN THE DRAIN: THE HIDDEN COSTS OF CALIFORNIA'S WATER SUPPLY 13 (2004).

151. Texas Living Waters Project, *supra* note 80; *see also* GLEICK, *supra* note 1, at 31; COHEN, *supra* note 150.

152. The State of California enacted legislation granting the state the power to implement water conservation programs during times of shortage. CAL. WATER CODE §§ 350-78 (West 2004). The State also enacted legislation for conservation, development, and utilization of State water resources generally. CAL. WATER CODE §§ 10000-12995 (West 2004). Other states have enacted water resources legislation to encourage conservation. *See e.g.*, COLO. REV. STAT. §§ 37-96-101 - 37-98-104 (2003); FLA. STAT. ch. 373 (2003). Also refer to the following cases, requiring that water be used reasonably and not wastefully: Imperial Irrigation Dist. v. State Water Res. Control Bd., 275 Cal. Rptr. 250 (Ct. App. 1990); People *ex rel.* State Water Res. Control Bd. v. Forni, 126 Cal. Rptr. 851 (Ct. App. 1976); Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist., 45 P.2d 972 (Cal.

Demand for water resources is high and growing, while supply in many parts of the country – at one time the arid West, but now also parts of the East – is limited.[153]

Thus, take-or-pay contracts for municipal water supplies should be prohibited or discouraged by legislation. Instead, cities and private providers should negotiate a graded system of financial incentives for increasing levels of water conservation and for decreasing levels of unbilled or under billed water consumption (except for equity-based protections of low-income consumers for basic household needs); these financial incentives would reward private providers for more efficient, and ideally decreased overall, use of water. However, these incentives should also be tied to adequate planning for drought scenarios, because improved conservation during wet years can result in "demand hardening," which is the decrease of waste that can be cut during drought years.[154]

F. Long-Term Capital Investment, Maintenance, and Public Agency Capacity

Often privatization facilitates immediate infrastructure upgrades or improved operational capacity.[155] However, privatization may hurt the long-term capacity of a public entity to improve, maintain, or operate its system after the period of privatization is over. The city typically no longer has officials or employees who are well familiar with the management and operation of a water system, unless the city hires the private supplier's staff.

Moreover, private firms have the incentive to invest in capital improvements and maintenance only so much as they will produce financial results for them during their period of private control.[156] There may be little forward-looking planning done to ensure conditions within capital infrastructure necessary to meet public demands and regulatory standards in the years following the end of the contract term, and cities may not develop adequate resources themselves to do so.[157]

Thus, cities may become dependent on private water suppliers for successive contract terms. One possible solution is to tie compensation of the private operator at least partially to the operator's planning, upgrade, and

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1935); Warner Valley Stock Co. v. Lynch, 336 P.2d 884 (Or. 1959); Dep't of Ecology v. Grimes, 852 P.2d 1044 (Wash. 1993). *But see* Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Law*, 28 ENVTL. L. 919 (1998).

153. GILLILAN, *supra* note 104; GLENNON, *supra* note 104; POSTEL, *supra* note 104; REISNER, *supra* note 104; MARC REISNER, CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER (rev. ed. 1993); Arnold, *Land Use and Water*, *supra* note 104; Joseph W. Dellapenna, *Issues Arising Under Riparian Rights: Replacing Common-Law Riparian Rights with Regulated Riparianism*, *in* WATER RIGHTS OF THE EASTERN UNITED STATES (Kenneth R. Wright ed., 1998); William E. Riebsame, *Geographies of the New West*, *in* ACROSS THE GREAT DIVIDE: EXPLORATIONS IN COLLABORATIVE CONSERVATION AND THE AMERICAN WEST 45-51 (Philip Brick et al. eds., 2001).

154. Thompson, *supra* note 132, at 111.

155. *See* sources cited *supra* note 114.

156. *See* National Research Council, *supra* note 1.

157. *Id.* at 87, 102-03.

maintenance activities that address post-contract water system needs. Similarly, the contract could contain financial incentives to the private operator, payable during the contract term, for continual planning, upgrades, and maintenance with life-spans well beyond the term of the contract.

G. Environmental Protection and Impact

Several different environmental issues arise when the owner or operator of a public water system is a private for-profit company.[158] One issue involves the protection of watershed and groundwater generally. There is every reason to believe that private operators and owners of water systems have incentives to protect the quality of the water supplies on which their business depends. However, it is possible that a private water company might cut corners on watershed and groundwater protections to save costs if the impacts on the water supply were to be experienced in the long-run, not the short-run. In contrast, public water agencies may be more accountable to the public's environmental goals and demands.

A more specific manifestation of the first issue involves the sale and development of a public entity's watershed reserve lands or groundwater recharge overlay lands, which are set aside as natural open space to provide buffers between developed lands and flows into surface waters and groundwater and thus protect watersheds and groundwater sources.[159] One version of the problem is that the city or a public water entity generates revenues by selling the lands to private developers. Another version of the problem occurs when a private water company owns such lands, perhaps as part of acquiring all or part of a public entity's assets, and sees the potential to increase revenues by developing the lands or selling them for development. Development, of course, increases impervious cover and contaminated runoff, results in loss of important habitat and ecosystem services, affects hydrology patterns, and diminishes open space.[160] Conflicts over the sale and development of watershed lands have arisen in Connecticut

158. *Id.*

159. National Research Council, *supra* note 1, at 6; Arnold, *Land Use and Water*, *supra* note 104, at 13-15; Vitale, *supra* note 1, at 1312.

160. *See generally* Arnold, *Land Use and Water*, *supra* note 104, at 28-31; *see also* AMERICAN RIVERS ET AL., PAVING OUR WAY TO WATER SHORTAGES: HOW SPRAWL AGGRAVATES THE EFFECTS OF DROUGHT (2002), *available at* http://www.smartgrowthamerica.org/DroughtSprawlReport09.pdf (last visited Feb. 3, 2005); U.S. GENERAL ACCOUNTING OFFICE, FEDERAL INCENTIVES COULD HELP PROMOTE LAND USE THAT PROTECTS AIR AND WATER QUALITY, Report No. GAO-02-12 (Oct. 2001), *available at* http://www.gao.gov/new.items/d0212.pdf (last visited Feb. 3, 2005); JOHN RANDOLPH, ENVIRONMENTAL LAND USE PLANNING AND MANAGEMENT 363, 373, 375-76, 404-06, 486-87 (2004); Monica G. Turner et al., *Land Use*, *in* STATUS AND TRENDS OF THE NATION'S BIOLOGICAL RESOURCES (U.S. Geological Survey ed., 1998), *available at* http://biology.usgs.gov/pubs/execsumm/ (last visited Feb. 3, 2005).

and New Jersey, resulting in public opposition and government restrictions on sales and development.[161] A Connecticut state statute prohibiting sales of watershed lands to private parties was upheld by federal courts.[162]

Another issue is the failure of a private water company to consider impacts on the natural environment, including watershed ecosystem services, instream flows, and aquifer health, when seeking inexpensive sources of water.[163] Public water entities are guilty of the same thirst for cheap water, as one can see with Los Angeles Department of Water and Power's infamous appropriations from Owens Lake, Mono Lake, and the Colorado River.[164] Nonetheless, L.A.'s agreement to vastly cut appropriations from Mono Lake's feeder streams (contributing now to a rising lake level and renewed ecological health) resulted in large part from public (customer) pressures following a major public education and advocacy campaign by the Mono Lake Committee.[165] This example illustrates that while public water entities are not immune from acting in environmentally harmful ways to provide plentiful, cheap water, they are also not immune from public and political pressures to protect the environment. Private water entities are more insulated from such pressures.

Similarly, private water companies may have insufficient incentives to pursue conservation and reclamation projects because of the costs associated with developing such projects and perhaps the loss of revenues if overall consumption decreases. Conservation and reclamation are critical to make the most efficient use of water and to ensure adequate in-stream flows in arid regions with large populations that have rising demands for water.

Finally, when a local water supply is served by a private company, there is less potential for cross-resource coordination by a single entity. In contrast, when a municipality regulates land use and development, implements water quality controls in its jurisdiction, and provides local water services, there is a single entity to coordinate land use planning and water planning. In numerous examples, coordination between public water agencies and public land use regulators has resulted in controls on growth (which would exceed available water resources) through limits on new water

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161. National Research Council, *supra* note 1, at 104-05; Matthew Futterman, *Watershed's Development Rekindles Fight*, STAR-LEDGER (Newark, NJ), Feb. 4, 1999, at 017; Vitale, *supra* note 1, at 1392.

162. Bridgeport Hydraulic Co. v. Council on Water Co. Lands of State of Conn., 453 F. Supp. 942, 946-48 (D. Conn. 1977), *aff'd* 439 U.S. 999 (1978) (mem.).

163. *See, e.g.*, Gleick, *supra* note 1, at 37-38; William Booth, *Liquid Assets: Thirsty States Turning to New Water Sources*, SEATTLE TIMES, Aug. 15, 2002, at A3; Sheila R. Cherry, *Monopolies on the Local Water Front*, INSIGHT ON NEWS, Feb. 11, 2002, at 1819; Lavelle, *supra* note 3. Indeed, California-American Water Co. was found guilty of illegally pumping water from an underground river connected to the Carmel River, causing harm to fish and riparian habitat. Mary Ann Milbourn, *Water Company Taps River Source Illegally*, ORANGE COUNTY REG., July 8, 1995, at B04.

164. *See* HUNDLEY, *supra* note 32, at 121-71, 215-34, 336-62.

165. Craig Anthony (Tony) Arnold, *Working Out an Environmental Ethic: Anniversary Lessons from Mono Lake*, 4 WYO. L. REV. 1 (2004); Craig Anthony (Tony) Arnold & Leigh A. Jewell, *Litigation's Bounded Effectiveness and the Real Public Trust Doctrine: The Aftermath of Mono Lake*, 8 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 1 (2001).

hookups.[166] The integration of land use and water resources is a topic of growing importance nationally and experimentation in state legislation and local regulation.[167] Involving private water suppliers – which may have very little interest in land use regulation and planning – presents something more of a challenge than incorporating public water service agencies into such coordination and integration efforts.

Two approaches may provide some measure of accountability in the area of environmental protection when water services are privatized. One is for the state legislature to adopt legislation, like Connecticut, prohibiting the transfer to a private party of certain lands held for watershed protection or groundwater protection.[168] The other is for environmental performance standards to be incorporated into privatization contracts. These standards should include basic minimum standards that are required, and performance goals for which there are incentives and rewards to the private supplier for meeting. The minimum standards should focus on prohibiting degradation of watersheds and groundwater sources. The incentives should focus on increased conservation and reclamation, improved coordination of water planning with local, state, and regional land use regulatory and planning authorities, and decreased impacts on ecologically stressed water systems.

H. Global Commerce in Water

Much of the privatization of public water supplies in the United States involves American subsidiaries of large multinational water companies. The three major multinational water companies are the French corporations, Vivendi SA (which owns U.S. Filter Services) and Suez Lyonnaise des Eaux (now called Ondeo, which owns United Water in the U.S.), and the German corporation RWE (which owns Great Britain's Thames Water and American Water Works Company in the U.S.).[169]

One issue raised by control over U.S. water systems by international entities is whether local, state, or federal laws could prohibit the international export of U.S. water supplies owned or controlled by multinational corporations. International trade agreements like GATT[170] and

166. Dennis J. Herman, *Sometimes There's Nothing Left to Give: The Justification for Denying Water Service to New Consumers to Control Growth*, 44 STAN. L. REV. 429 (1992).

167. *See generally* Arnold, *Land Use and Water*, *supra* note 104; Craig Anthony (Tony) Arnold, *Polycentric Wet Growth: Policy Diversity and Local Land Use Regulation in Integrating Land and Water*, in WET GROWTH, *supra* note 32, at 393-433 [hereinafter Arnold, *Polycentric Wet Growth*].

168. CONN. GEN. STAT. ANN. § 7-131d (2003).

169. Cherry, *supra* note 163; Clarke, *supra* note 14; Harrer, *supra* note 1; Sherman, *supra* note 46.

170. General Agreement on Tariffs and Trade, Oct. 30, 1947, 108 Stat. 4809 (1994), T.I.A.S. 1700, 55 U.N.T.S. 194.

NAFTA[171] leave the issue murky, turning on an interpretation as to whether water is a non-renewable natural resource or goods in commerce. Legal experts are split over whether the U.S. could prohibit the export of U.S. water supplies internationally,[172] but a U.S. Supreme Court case declaring groundwater to be an article of interstate commerce does not help the case for protecting domestic supplies of water.[173] Privatization contracts should be drafted in such a way as to retain ultimate ownership of the rights to the water in the governmental entity, even if the private entity manages and distributes the water.

I. Security of Water Supplies and Terrorism

Private control over water services, supplies, and facilities raises domestic security concerns, especially in this age of terrorism. The domestic water supply has received considerable security and anti-terrorism attention by all levels of government since September 11, 2001.[174] In 2002, the U.S. Congress enacted the Public Health, Security, and Bioterrorism Preparedness and Response Act of 2002, which requires public water systems to prepare emergency response plans to address threats to water

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171. North American Free Trade Agreement, Dec. 17, 1992, 19 U.S.C. §§ 3312-17 (2005), 32 I.L.M. 289 (1993).

172. Brian D. Anderson, *Selling Great Lakes Water to a Thirsty World: Legal, Policy & Trade Considerations*, 6 BUFF. ENVTL. L.J. 215, 238-42 (1999); Milos Barutciski, *Trade Regulation of Fresh Water Exports: The Phantom Menace Revisited*, 28 CAN.-U.S. L.J. 145 (2002); Sanford E. Gaines, *Fresh Water: Environment or Trade?* 28 CAN.-U.S. L.J. 157 (2002); A. Dan Tarlock, *How Well Can International Water Allocation Regimes Adapt to Global Climate Change*? 15 J. LAND USE & ENVTL. L. 423, 443 (2000). *See also* Gleick., *supra* note 1, at 15-20; Clarke, *supra* note 14.

173. Sporhase v. Nebraska *ex rel.* Douglas, 458 U.S. 941 (1982).

174. *E.g.*, U.S. Environmental Protection Agency, *Water Infrastructure Security*, *available at* http://www.epa.gov/safewater/security (last visited Feb. 3, 2005); Office of the Inspector General, U.S. Environmental Protection Agency, *Evaluation Report, Survey Results on Information Used by Water Utilities to Conduct Vulnerability Assessments*, Report No. 2004-M-0001 (Jan. 20, 2004); Tennessee Municipal League, *Municipal Water Systems Face Potential Security Threats*, *available at* http://www.tml1.org/TTC/2001/09-24-01/water_systems.htm (last visited Feb. 3, 2005); Alex Nussbaum, *Water Utilities Say Supplies Are Safe, Attack Is Unlikely*, Sept. 28, 2001, *available at* http://www.waterindustry.org/Water-Facts/private-water-safety.htm (last visited Feb. 3, 2005); Jean Hays, *Company Will Gauge Security of City Water*, WICHITA EAGLE, Feb. 14, 2002, at 1A; *AWWA Seeks Federal Support for Enhanced Water Utility Security; Security of Water Supply Essential to Homeland Security*, U.S. NEWSWIRE, March 20, 2002; Lukas I. Alpert, *NYC Water System Vulnerable to Attack*, AP ONLINE, May 20, 2002; Patricia Wolff, *Cities Find Safety Costly*, OSHKOSH NORTHWESTERN, July 25, 2002, at 3; Vicki Kemper, *Flood of Money Targets Drinking Water Security Sabotage: Supplies Are Considered Safe, But Utilities and Cities Are Spending Millions*, L.A. TIMES, July 28, 2002, at A20; *Environmental Protection Agency: Water Security Grants*, PUB. WORKS, Aug. 1, 2002, at 8; U.S. Environmental Protection Agency, *EPA, Drinking Water Utilities Advance Water Security*, Jan. 29, 2003 *available at* http://www.waterchat.com/News/Federal/03/Q1/fed_030130-01.htm (last visited Feb. 5, 2005) Genevieve Marshall, *Security Is Watered-Down at Reservoirs, Treatment Plants*, MORNING CALL (ALLENTOWN), Mar. 30, 2003, at A1; *Deadline for Water Utility Security Assessments; Nation's Largest Water Supplies Required to Submit Security Studies to EPA Today*, U.S. NEWSWIRE, Mar. 31, 2003; American Water Works Ass'n, *Protecting Our Water: Drinking Water Security in America After 9/11* (2003), *available at* http://www.awwa.org/advocacy/water security in america final.pdf (last visited Feb. 3, 2005).

supplies and to conduct and submit vulnerability assessments to the EPA.[175] Both public and private water systems have bolstered security, and many states have passed legislation or implemented programs to enhance security of the water supply.[176]

The security concerns are often misunderstood by the general public and even policy makers. Much attention has been given to protecting reservoirs and large water holdings from introduction of chemical or biological contaminants.[177] However, the amount of a contaminant needed to pollute such large amounts of water, as well as the fact that such water is usually held pre-treatment (i.e., treatment processes would eliminate any contaminants), make this issue a virtual non-threat, according to experts.[178] , Much less attention, however, has been given to protect water pumping and distribution facilities. Although introduction of contaminants into distribution pipes could pose a serious problem, the greatest harm could be done by simply damaging pumping or distribution equipment, possibly shutting down the supply of water to large parts of a city.[179] The potential for such an act is greater than one might expect if one considers that terrorists aim to create public fear, panic, and chaos more than they do to kill or injure the maximum number of people. It has been said that great harm could be done by someone with merely a hammer, screwdriver, and access to water system machinery or pipes.[180] An explosion at a key point in the distribution system could cause even greater harm.[181]

Private water suppliers, just like municipal and governmental water suppliers, have called for government attention to (and funding for) security and have engaged in heightened security measures. However, private water companies usually operate with less transparency and accountability to the public than do public entities. This fact raises three particular concerns about private control over the public's water supply.

First, a private water system operator may have less of a close working relationship with local law enforcement than would a municipal water department or local water district. In general, public operators of water systems are either under municipal control or closely connected to local government, and therefore involvement of local law enforcement in

175. Pub. L. No. 107-188, 116 Stat. 594 (2002) (amending the Safe Drinking Water Act); 42 U.S.C. §§ 300f to 300j-26 (1996).

176. *See* sources cited *supra* note 174.

177. Hays, *supra* note 174; Kemper, supra *note* 174; Marshall, *supra* note 174; Nussbaum, *supra* note 174; Tennessee Municipal League, *supra* note 174;

178. Hays, *supra* note 174; Kemper, *supra* note 174; Marshall, *supra* note 174; Nussbaum, *supra* note 174.

179. Hays, *supra* note 174; Kemper, *supra* note 174; Marshall, *supra* note 174.

180. Marshall, *supra* note 174; Nussbaum, *supra* note 174.

181. *Id.*

safeguarding water supplies and monitoring potential threats and local emergency response and public health officials in responding to emergencies is likely to be greater (recognizing, though, that some inter-departmental or inter-agency communication within government can be quite poor). A private company may be less likely to cooperate with local law enforcement and emergency and public health officials simply due to poorly developed lines of communication, unfamiliarity of local officials with the private company's operations, or desires to keep confidential proprietary information about private operations.

Second, private entities may be less likely to reveal information about private operations, employees, breaches of security, and system security status than public entities would. For example, when Congress was considering the Public Health, Security, and Bioterrorism Preparedness and Response Act of 2002, private water companies objected to submitting assessments to the EPA, and instead wished merely to certify that they had done so: Congress added provisions to exempt these assessments from the Freedom of Information Act and unauthorized disclosure.[182] The conflict over disclosing assessments to a federal agency illustrates a possibly inherent tension between private interests in keeping water management practices private and public interests in a well-informed, well-prepared set of anti-terrorism specialists at local, state, and federal levels.

Third, it might be more difficult to ascertain if there are security breaches or threats from a private company's employees. There is no reason to believe that private companies on average have poorer employee screening and background check systems than do public entities. In fact, the private systems on the whole might be better than the public systems, or the opposite might be true. What is at issue, though, are whether public officials concerned with public water supply security have adequate opportunity to check a private company's processes, practices, and safeguards. Both public and private water service providers have access to certain water security information that is confidential and not made available to the general public. However, it is not clear how widely this information is disseminated throughout large multinational water companies based in other countries, or the degree of risk that an employee sympathetic to terrorists could access it.

Water privatization agreements should mandate that private companies not only undertake standard security measures that are now normal for water systems in this age of terrorism, but also fully cooperate with, and disclose relevant information to, appropriate law enforcement and anti-terrorism planning officials to ensure maximum security of local water supplies. In addition, public officials should investigate the employee screening system and internal security systems of a private entity with which they are considering contracting, and satisfy themselves that such measures are adequate.

182. National Association of Water Companies, *2002 Annual Report*, at 10.

J. Equity

When ownership or operation of the public's water supply shifts from a governmental entity to a profit-motivated private entity, there is the potential that those in society who lack resources will be priced out of the market for water, which is a necessity of life. Public entities are concerned with policy considerations, social equity, politics, and impacts of thirsty low-income residents on society.[183] They have every reason to structure water services, rates, and assistance programs so that water for basic human needs is not limited just to those well-off enough to pay high rates. However, private suppliers have few, if any, reasons to consider social equity in structuring water services and rates, because social equity considerations do not contribute to profits or operational efficiencies. Although there is some evidence that officers and managers in private corporations occasionally consider socially-based norms if the corporate culture includes these norms, in most circumstances a corporation's primary interest in social equity is for good public relations.[184]

Therefore, the responsibility for ensuring that low-income persons are able to afford privatized water services will fall on the public entity that is contracting out, or selling its water system. One study notes that while water and sewer bills can consume as much as twenty percent of a welfare recipient's benefits, only nineteen percent of cities surveyed have a discount rate, credit, or financial assistance program for low-income customers of water and sewer services.[185] In addition to the obvious reason that cities may have limited resources for such programs, there is some evidence that public providers of water services artificially hold down or subsidize rates

183. Bakker, *supra* note 13; Fauconnier, *supra* note 1, at 42, 45-46, 59-61; Rosenblum, *supra* note 3. *See also* Thayer v. California Dev. Co., 128 P. 21 (Cal. 1912) (differentiating between public and private suppliers of water). However, there is also evidence that public water institutions serve private interests and values. *See, e.g.*, BURNS, *supra* note 34; F. LEE BROWN & HELEN M. INGRAM, WATER AND POVERTY IN THE SOUTHWEST (1987); DONALD WORSTER, RIVERS OF EMPIRE: WATER, ARIDITY, AND THE GROWTH OF THE AMERICAN WEST (1985).

184. *See, e.g.*, Neil Gunningham et al., *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 LAW & SOC. INQUIRY 307 (2004); Faith Stevelman Kahn, *Pandora's Box: Managerial Discretion and the Problem of Corporate Philanthropy*, 44 UCLA L. REV. 579, 670-71 (1997); Note, *Finding Strategic Corporate Citizenship: A New Game Theoretic View*, 117 HARV. L. REV. 1957, 1969-72 (2004); Terry F. Yosie & Timothy D. Herbst, *The Journey Towards Corporate Environmental Excellence: Integrating Business Methods With Environmental Management*, Enterprise for the Environment, (June 1997), *available at* http://www.csis.org/e4e/yosierpt.html (last visited Feb. 3, 2005). *See generally* Gleick, *supra* note 1, at 29-30 (describing how "privatization may bypass under-represented and under-served communities").

185. Fauconnier, *supra* note 1, at 64-65 (stating that "only 28 out of 145 cities surveyed have such programs" and that "[n]o programs exist at the federal level. . .").

for water services, especially for residential customers.[186] However, as rates rise to meet new infrastructure needs and to reflect market pricing standards, there is a critical need for low-income assistance programs. A portion of the money that cities save through privatization should be earmarked for such programs.

It is more cost-effective and less complicated for the city or water district to set up with the private operator a system of low-income customer assistance. This could potentially be done through credits on the customers' bills, at the time of the privatization rather than after the private operation has begun and/or rates have been increased. One way of public funding of such assistance could be by offsets, i.e., reductions, in the payments of income or franchise/concession fees from the private operator to the public owner if an outsourcing arrangement is used, or through direct cash subsidies to the private owner/operator if the system is sold. However, the private water company must be contractually obligated to offer and account for the low-income credits or subsidies in its water billing and collection, under the terms provided by the city or district.

Another equity issue has to do with discrimination in service provision. Several famous equal protection cases over the past several decades involved racial discrimination in the provision of municipal services, including water supply.[187] In many communities, neighborhoods predominated by racial or ethnic minorities were underserved by the municipal water system.[188]

Presumably private suppliers of water may be less likely to discriminate on the basis of race or ethnicity, because all customers, regardless of race or ethnicity, contribute to the company's revenues and profits. However, this theory may not always operate accurately in reality. Individual decision makers within a business entity may make decisions with conscious or even unconscious prejudices, unchecked by internal safeguards.[189] Or specific

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186. *See, e.g.*, National Research Council, *supra* note 1, at 86-88; Lavelle, *supra* note 3; Rosenblum, *supra* note 3; Sherman, *supra* note 46. For a discussion of the nuances, merits, and controversies of subsidizing water for basic human needs, see Gleick, *supra* note 1, at 31-34.

187. *See, e.g.*, Dowdell v. City of Apopka, 698 F.2d 1181 (11th Cir. 1983); Hawkins v. Town of Shaw, 437 F.2d 1286 (5th Cir. 1971), *aff'd en banc* 461 F.2d 1171 (5th Cir. 1972); Johnson v. City of Arcadia, 450 F. Supp. 1363 (M.D. Fla. 1978).

188. *See generally* CHARLES M. HAAR & DANIEL WILLIAM FESSLER, THE WRONG SIDE OF THE TRACKS (1986); *see also* Robert Bullard, *Residential Segregation and Urban Quality of Life, in* ENVIRONMENTAL JUSTICE: ISSUES, POLICIES, AND SOLUTIONS 76-85 (Bunyan Bryant ed., 1995).

189. IAN AYRES, PERVASIVE PREJUDICE? UNCONVENTIONAL EVIDENCE OF RACE AND GENDER DISCRIMINATION (2001); Regina Austin, *"A Nation of Thieves": Securing Black People's Right to Shop and to Sell in White America*, 1994 UTAH L. REV. 147 (1994); Ian Ayres, *Further Evidence of Discrimination in New Car Negotiations and Estimates of Its Cause*, 94 MICH. L. REV. 109 (1995); Ian Ayres, *Fair Driving: Gender and Race Discrimination in Retail Car Negotiations*, 104 HARV. L. REV. 817 (1991); Anne-Marie G. Harris, *Shopping While Black: Applying 42 U.S.C. § 1981 to Cases of Consumer Racial Profiling*, 23 B.C. THIRD WORLD L.J. 1 (2003); Peter P. Swire, *The Persistent Problem of Lending Discrimination: A Law and Economics Analysis*, 73 TEX. L. REV. 787 (1995); Michael J. Yelnosky, *What Does "Testing" Tell Us About the Incidence of Discrimination in Housing Markets?* 29 SETON HALL L. REV. 1488 (1999); Stephen E. Haydon, *A Measure of Our Progress: Testing for Race Discrimination in Public Accommodations*, 44 UCLA L. REV. 1207

decisions about service may be economically rational but have a discriminatory impact or effect. For example, because of years of neglected facilities and lines serving minority neighborhoods, the costs of repairs or upgrades may be disproportionately expensive to the revenues generated by those neighborhoods: these failures to make the repairs or upgrades further widens the gap between minority and non-minority neighborhoods. It is important to remember that the lack of water and other basic public services in low-income Latino *colonias* in Texas resulted from decisions by private developers of those communities.[190]

The concern about possible discriminatory decisions or racially disproportionate impacts of business decisions is that the constitutional constraints on cities and public providers of water services may not operate on private providers. The Equal Protection Clause of the U.S. Constitution applies only to "state action," not private discrimination.[191] The U.S. Supreme Court's standard for private contractors providing public services is vague and uncertain.[192] If the private entity performs a government function or has a "symbiotic relationship" that is essentially a close partnership between the government and the private contractor, the state action requirement is met and the private entity will be subject to the Equal Protection Clause.[193] However, often state courts define the provision of municipal water services as a proprietary function, not a government function.[194] Federal civil rights statutes, which prohibit discrimination in interstate commerce, might protect minority communities from private discrimination in water service, but nondiscriminatory business reasons, such as the costs associated with upgrading older minority neighborhoods, serve as a defense to discrimination claims.[195] In short, it is less than clear whether courts would mandate a private water utility to upgrade service to underserved minority neighborhoods the way they have directed cities to do so.[196]

(1997). For evidence that private water companies prefer to serve wealthier sections of communities and may refuse to serve poor areas, see Gleick, *supra* note 1, at 23; Bakker, *supra* note 13.

190. *See* Jane E. Larson, *Free Markets Deep in the Heart of Texas*, 84 GEO. L.J. 179 (1995).

191. Civil Rights Cases, 109 U.S. 3 (1883). *See generally* Erwin Chemerinsky, *Rethinking State Action*, 80 NW. U. L. REV. 503 (1985).

192. For discussions of state action issues in the private provision of public services, see Daphne Barak-Erez, *A State Action Doctrine for an Age of Privatization*, 45 SYRACUSE L. REV. 1169 (1995); Mays, *supra* note 4.

193. *E.g.*, Magill v. Avonworth Baseball Conference, 516 F.2d 1328, 1331 (3d Cir. 1975).

194. *See, e.g.*, Boyle v. Mun. Auth. of Westmoreland County, 796 A.2d 389 (Pa. 2002).

195. *See generally* 42 U.S.C. § 1981 (equal rights under the law); Civil Rights Act of 1964, 42 U.S.C. §§ 2000a-2000h-6 (2003) (places of public accommodation and employment); Fair Housing Act of 1968, 42 U.S.C. §§ 3601-3619 (2003) (housing and real estate transactions).

196. Nonetheless, a private provider of water services may have a common law "duty to serve" that can be used to require equal service. *See* HAAR, *supra* note 188.

Therefore, antidiscrimination provisions should be included in any contract for the outsourcing, lease, or sale of water systems to private entities. In addition, both parties to the contract should have frank discussions about sub-areas, especially neighborhoods, within the system's overall service area that have aging, inadequate, or sub-normal distribution systems.

K. Public Employees

One of the most vocal concerns raised when a municipality decides to privatize operation of its water system is what happens to the city's water employees. City employees fear loss of their jobs or unfair treatment by the private operator or owner. Effective opposition by the city's employees can undermine a city council's decision to privatize its water system. For example, even though Atlanta's city employees lost their arguments in both city hall and the courthouse against Atlanta's privatization contract with United Water, their animosity towards the arrangement resulted in a consistently poor working relationship between the city and United Water, negative oversight reports and audits, and ultimately the city's termination of the twenty-year agreement after only four years.[197] Incidentally, United Water had hired most, but not all, of the city's employees, but had begun reducing the workforce in order to achieve necessary cost savings.[198]

Because the loss of city workforce is a major political, equity, and often legal issue, most contracts for water service privatization provide that the contractor will hire the city employees and will not eliminate jobs except through natural attrition or under certain financial exigencies.[199] Interestingly, well-conceived privatizations can result in increased skills for (former) city employees. However, one issue to consider involves employee benefits, especially if the city has an unusually good set of benefits in comparison to the set of benefits offered by the private water company.

L. Public Opinion

As to the status of water privatization in the United States today,[200] privatization proposals have generated fierce public opposition in some communities, while being well supported in other communities. Policy makers are undoubtedly aware that turning control over something as essential and publicly valued as the local water supply system from an accountable government entity to a private corporation is likely to be met with suspicion, fear, concern, and opposition. Privatization failure tends to occur in communities in which pro-privatization local officials attempt to circumvent public scrutiny and participation with quick decisions, as was the

197. *See* sources cited *supra* note 68.

198. *Id.*

199. Johnson, *supra* note 1, at 19; Johnson & Moore, *supra* note 7; National Research Council, *supra* note 1, at 103-04; Maggs, *supra* note 3; Vitale, *supra* note 1, at 1306.

200. *See supra* Part II (B).

case in Atlanta and in Stockton, California.[201] State legislatures have a role in ensuring that the process of privatization: 1) is open and transparent to the public; 2) has ample, but organized and timely, opportunities for public participation; and 3) is limited by standards and conditions designed to protect public health and safety, particularly the public's interest in a reliable, clean supply of water at an affordable rate.

M. Limited Authority of Regional Public Water Institutions

In many circumstances in which a city or local water agency is considering privatization, the private firm's advantage is not its investor-owned status, but instead its capacity to bring the efficiencies of economies-of-scale to the provision of water services. This is especially true for small- and medium-size municipal water systems, but it can also be true even for large-city water systems. An alternative to privatization is participation in or partnership with a regional public water institution; a public entity that serves a region, instead of a single city. Regional government-owned water systems have tended to enjoy success, in part due to their economies of scale and in part due to their water-specific mission and powers, freed from the constraints of local multi-issue governance and empowered to aggressively pursue water development and distribution.[202]

Unfortunately, some states do not authorize the creation of regional public water institutions, others grant only limited authority, and others authorize regional institutions poorly equipped to overcome local political resistance to yielding power and fears of regional government.[203] For example, one New Jersey case held that the North Jersey District Water Supply Commission lacked the authority to contract to manage, operate, and maintain the City of Bayonne's water system, because the state legislature did not grant the Commission the authority to do so.[204] The court ruled this way even though Bayonne could have entered into the same contract with a private water supplier under state statutes.[205]

State legislatures can encourage greater efficiency in operations, increase sources of capital for needed water system improvements, and promote healthy competition to private water suppliers by expressly

201. *See* sources cited *supra* notes 46, 53.

202. *See, e.g.*, ROBERT GOTTLIEB & MARGARET FITZSIMMONS, THIRST FOR GROWTH: WATER AGENCIES AS HIDDEN GOVERNMENT IN CALIFORNIA (1991); Barton H. Thompson, Jr., *Institutional Perspectives on Water Policy and Markets*, 81 CAL. L. REV. 671 (1993). *See also* National Research Council, *supra* note 1, at 32-33.

203. National Research Council, *supra* note 1, at 90.

204. United Water Res., Inc. v. N. Jersey Dist. Water Supply Comm'n, 701 A.2d 434 (N.J. 1997).

205. *See* United Water Res., Inc. v. N. Jersey Dist. Water Supply Comm'n, 685 A.2d 24, 25 (N.J. Super. Ct. App. Div. 1996).

authorizing regional water authorities as special-purpose governmental entities with the powers to operate, manage, maintain, design, build, lease, and acquire local water systems.

V. STATE LEGISLATURES' ROLES IN ENSURING ACCOUNTABILITY

State legislatures have an important role and responsibility to play in the emerging trend towards privatization of municipal water services.[206] The benefits of private sector involvement in the operation, management, construction, and perhaps even ownership of public water supply systems can be great, but the dangers from lack of accountability to the public are even greater.[207] A comprehensive state statute, establishing minimum standards and processes for local public entities seeking to enter contracts with private firms to operate, manage, maintain, lease, or own public waterworks, would greatly enhance accountability of the privatization process to public interests and needs.[208]

A comprehensive state water privatization statute would apply to any governmental entity, including a municipality or a water district, that seeks to enter into a contract with a private entity to operate, manage, maintain, lease, buy, or own public waterworks. The statute would expressly authorize such contracts. It would not need to apply to outsourcing of specific operational functions of a publicly operated water system, unless all such private outsourcing in the aggregate constitutes the majority of the public entity's operations. This is because most states have existing clear authority for outsourcing.

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206. Professor Frug argues that the core problems with the provision of city services are simultaneously (1) a policy preference for market, consumer-oriented privatization of services that are by their very nature public; and (2) a legal preference for state power over local power, which hampers the building of community and the body politic. FRUG, *supra* note 14, at 167-79. Frug urges greater power and authority for local government for the purpose of building community. *Id.* His ideas, although intriguing and compelling, require extensive change to the structure of our government, legal doctrine, policy practices, and perhaps even social norms. In contrast, this article focuses on the current reality of the trend toward privatization and the existence of state power to control the adverse effects of privatization. Although embracing state power, (instead of local power) to regulate (instead of prohibit) private supply of public services may impede structural changes that could be far more important and have far greater impact, the likelihood of reaching Frug's ideal is small and the current need for regulation that benefits the public is great. The bind between pursuing an unattainable ideal or settling for a less-than-ideal, incremental, attainable solution to public problems is a classic, persistent tension between the purist and the pragmatist. *See, e.g.*, MARGARET JANE RADIN, REINTERPRETING PROPERTY 1, 27 (1993); MARGARET JANE RADIN, CONTESTED COMMODITIES 63, 123-30 (1996); Arnold, *supra* note 21, at 325-26; Stephen J. Schnably, *Property and Pragmatism: A Critique of Radin's Theory of Property and Personhood*, 45 STAN. L. REV. 347, 347-48 (1993). However, for an argument for a greater local government role in integrating regulation and planning of both land use and water resources, see Arnold, *Polycentric Wet Growth*, *supra* note 167, at 418-33.

207. For a more comprehensive discussion of the need for political accountability in privatization, see generally Jack M. Beermann, *Privatization and Political Accountability*, 28 FORDHAM URB. L.J. 1507 (2001).

208. For recommended state statutory provisions for privatization by subcontracting public services generally, see Dannin, *supra* note 139, at 249-314.

The statute should neither expressly encourage nor discourage privatization as a matter of state public policy. Instead, the ideal state policy is to facilitate privatization of public water services where significant net benefits can be gained by private operation of a particular public water system and where appropriate limits, safeguards, conditions, and procedures ensure accountability to the public interest.

In addition to express authorization of privatization contracts, the statute should establish: 1) minimum baseline processes and standards for public entity decisions to privatize; 2) minimum requirements and presumptions for contract terms; and 3) state substantive review of privatization contracts prior to final approval.

The general standard governing privatization contracts should be that a governmental entity holds its water system in trust for the public. The entity can enter into contracts only if it demonstrably serves the public's interest in a reliable supply of clean drinking water at a reasonable rate and if the contract is appropriately limited by conditions, restrictions, and safeguards to protect the public interest. This standard could clearly be met in the many examples of wise, well-negotiated privatization contracts that currently benefit local customers of privatized water services, but would guard against inadvisable or hasty arrangements that harm the public.

The statute should require a competitive bidding process in which the top bidder is selected according to a pre-established formula of highest bid price and best qualifications to run the local water system. The statute also should establish basic procedural requirements that ensure transparency of the process and opportunity for public input. The procedural requirements should include: 1) public notice of the intent to seek bids for a privatization contract; 2) public notice of public hearings to consider awarding a contract to a specified bidder, i.e., potential contractor; 3) availability of detailed information on the privatization proposal, impacts, contract terms and qualifications for public review; 4) public hearings in which members of the public have an opportunity to comment on the proposed contract; 5) opportunity for members of the public to submit written comments in lieu of testimony at the hearing; and 6) consideration by the government decision-maker of the evidence, comments, and testimony received from the public.

The state statute should mandate the preparation of an Impact Assessment and the submission by the potential contractor of a Statement of Water Services Provider Qualifications and History. The Impact Assessment should be prepared by the local government entity or its expert consultant(s), and it should address impacts of the proposed privatization on water system operations and efficiencies (including costs and capital investments), water service rates, performance of water service obligations (including water quality and reliability), the natural and human environment, social equity (especially low-income customers and historically underserved

areas), and the city's workforce. The Statement of Water Services Provider Qualifications and History should be signed under penalty of perjury by an officer of the water company, i.e., the private provider or potential contractor. It should also provide an accurate summation of the status and performance of the company and its parent company(ies) with respect to financial health, operational efficiency, quality and reliability of water service provided to public customers, compliance with applicable federal, state, and local environmental and health laws (including the SDWA), impacts on the natural and human environment, and breaches of contracts with public entities (including any terminations of privatization agreements).

The statute should expressly prohibit take-or-pay contracts and transfer or development of watershed protection and groundwater protection lands to or by private entities.

The statute should require review and approval, conditional approval, or disapproval of the contract terms by an appropriate state agency, perhaps with input from one or more other agencies. The reviewing agency should consider, among other things, whether the contract sufficiently addresses – if necessary – the following terms: 1) clear controls over rates and rate increases, such as requirements of local public entity approval and/or clear standards governing rates; 2) clear performance standards governing the quality, supply, reliability, and maintenance of water services delivered and response to customer complaints; 3) establishment of a customer complaint system and a monthly summary reporting requirement to the local public entity; 4) incentives for planning, maintenance, and improvements for life spans exceeding the life of the contract; 5) minimum standards regarding protection of watersheds and groundwater; 6) incentives for increased conservation and reclamation, improved coordination of water planning with local, state, and regional land use regulatory and planning authorities, and decreased impacts on ecologically stressed water systems; 7) a declaration that water supplies remain property of the city despite management and distribution by the private contractor; 8) requirements of security measures (including employee screening) and cooperation with and information disclosure to law enforcement, antiterrorism, emergency response, and public health officials; 9) coordination of publicly-funded low-income customer assistance programs with the billing and collection practices of the private contractor; 10) antidiscrimination policies; 11) retention of public employees by private entities, as well as standards governing employee benefits and workforce reductions; and 12) standards for modification, termination, and dispute resolution.

A system of effective public and state involvement in the consideration of contracts with private water companies provides the needed accountability in water privatization that protects the public's interest in reliable supplies of clean drinking water at reasonable rates and in a clean, healthy environment.