PRIVATIZATION OF WATER AND WASTEWATER SERVICES

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In the 1980s, the Reagan Administration began a concerted effort to make the case that selling off many government assets and "outsourcing" government services would reduce government costs and help balance the budget. This push for "privatization", which continues today in many quarters, is based on the premise that government does not necessarily have to *produce* public goods or services---roads, hospitals, public safety--but is only obligated to guarantee that public services are provided. Philosophically and practically, privatization encourages the public sector to "engage[s] the private sector to provide services that are usually regarded as public sector alternatives." ¹

Privatization can take a variety of forms, including "outsourcing" certain activities—such as bill collecting, utility meter reading, auditing and compliance services, landscape maintenance—contracting with a private entity to build and operate a community facility, such as a hospital or convention center or water treatment plant. An example of the most extreme form of privatization of a public service would be the "outright divestiture of both management responsibilities and capital assets to private companies..."²

Privatization, also referred to as public- private partnerships, in any of these forms has probably not proceeded as unconditionally as its supporters would want, but it has taken hold. A survey conducted by the Council of State Governments in 1997 indicated that more that 58.6% of the states had increased privatization during the previous five years, and 55.2% were planning to increase privatization initiatives during the next five years. ³ Examples are abundant, school districts, including the Dallas School District, have hired private companies to manage and operate some of their schools; city councils have hired private companies to operate city convention centers, manage hospital emergency rooms, collect garbage, read electric utility meters. Perhaps the most widely publicized privatization involves state and local governments contracting with private entities to operate prison facilities.

The justification for privatization of public sector tasks seems straightforward enough for its advocates: the private sector offers better service in a more cost-effective manner than the public sector. It is not, however, universally accepted that all public sector functions can or should be provided by the private sector. In fact, to date the record does not reflect that the private sector consistently delivers more cost-effective, dependable, and efficient product or services. Privatization also raises unresolved questions about public accountability, resource management, long-term costs, and the fiscal reliability and stability of the private enterprise, particularly in changing economic conditions.

This paper discusses privatization trends in the water and wastewater sector, in general and in Texas specifically. It explores the potential benefits—and the risks—of privatization of these services. The paper concludes with recommendations for consideration by the Texas legislature and state agencies.

AN OVERVIEW OF PRIVATIZATION OF WATER AND WASTEWATER SERVICES

As of 2000, about 85 percent of the water systems in the U.S. were owned by municipalities.⁴ Fifteen percent of the market is privately owned,⁵ but that percentage is expected to double over the next five years. Municipalities, as well as small private and regional utilities, are in need of substantial funds and capital improvements to repair aging infrastructure, and to meet growing demands at the same time that they are facing fiscal restraints and demands by the public to cut costs. Privatization is touted as one way to address these issues. Moreover, large electric utilities want to diversify into the water business and large-investor- owned water utilities want to expand their services to include designing, building and operating water- wastewater facilities. Both are seeking to obtain a share of an estimated \$82 billion annual US market.⁶

In a 1998 nationwide survey of 350 communities (220 of which had populations of more than 100,000 people), 35 percent of the respondents (for the most part city administrators and directors of municipal utilities) reported they were considering privatization, managed competition, and other public-private partnerships for water - wastewater services. According to the study, about 17 percent of the respondents used "outsourcing" for such activities as meter reading, billing and maintenance activities.⁷ The survey had a 63% response rate.

Municipalities have traditionally hired private companies to design and build water and wastewater facilities while the city continued to operate and manage the system. In recent years, more communities have been contracting out the management and operation of their systems. In addition, some municipalities are signing long- term contracts with private companies to design, build, operate and maintain their systems or specific projects.⁸ This latter type of water utility privatization has been taking place in Europe for some time, but its adoption in the U.S. is more recent. As noted above, several factors are motivating local governments to look to the private sector to take on the operation and management of water and wastewater systems. Large and medium size municipalities, as well as small investor owned utilities and regional water districts, are facing rising service costs, and confronted by a need for large capital infusions to modernize their infrastructure to meet the growing demand and to comply with regulatory requirements of the Safe Drinking Water Act. These factors have provided incentives for local governments and small utilities to look to the private sector for financial, professional and technological assistance. These same conditions have encouraged private investor-owned utilities, including large multi-national corporations to look to this public service sector as a business opportunity.⁹

There are five major types of water utility privatization initiatives, each of which relies on a tailor-made contract between a public (governmental) entity and a private company:

- **Outsourcing** specific operational tasks, such as metering or billing.
- Contracting with a private entity to operate and maintain (O&M) some or all of its water wastewater treatment facilities. Most frequently with this arrangement, the community retains the water rights and sets the rates while paying a fee to the private entity to manage the system. Currently, this is one of most popular forms of water wastewater privatization.
- A long-term lease agreement with a for-profit entity to **design-build and operate (DBO)** water-wastewater systems.
- A long-term concession in the form of a build-operate-transfer (BOT) agreement. Under this arrangement a governmental entity contracts with private entity to construct a water or wastewater facility and operate it under a long-term agreement. At the termination of the contract, the public utility gains all rights to the facility and its operation. Under most concession or BOT agreements for water services, the municipality is often under a "take-or-pay" obligation. That is, the utility must pay for a specific amount of water whether it uses it or not.¹⁰
- The sale of a community or district water-wastewater system to a private entity. This is the most extreme form of privatization, but it is taking place in a few communities across country.

Another aspect of water privatization involves private entities seeking to supply raw water to municipalities. This approach is illustrated by the nowinfamous T. Boone Pickens proposal to pump and ship groundwater from the Texas Panhandle to Dallas, El Paso, San Antonio or cities in-between.¹¹ While private water sales to municipalities are not yet widespread in either Texas or the rest of the U.S., several companies have been exploring options. For example, at least four private corporations—Western Water Company, Vidler Water Company, Azurix Corporation and Cadiz Land Company—are proposing various projects for marketing raw water to California cities.¹²

Advocates of this type of water supply privatization have viewed state water law—particularly restrictions on inter-basin transfers and provisions requiring consideration of impacts of transfers on "third parties" (i.e. local communities and landowners in the area-of-origin) as barriers.¹³

POTENTIAL BENEFITS AND RISKS OF PRIVATIZATION OF WATER AND WASTEWATER SERVICES

Both proponents and critics of public-private partnerships have compiled studies showing respectively that it works or that it doesn't work. In 2001, Public Citizen reported on 16 communities where privatization of water and wastewater systems has occurred. Though by no means a comprehensive analysis of public-private partnerships in this sector of the economy, Public Citizen's study did point out that like the public utility operations, the private sector does not always produce a perfect public service. Public Citizen documented incidences where wastewater systems were not maintained adequately, water pipes were allowed to deteriorate and in one city, water quality actually worsened. It also documented cases where municipalities decided to "take back" systems that had been contracted to private companies because of excessive and repeated rate hikes. ¹⁴

On the other hand, privatization proponents point to case studies that show when private corporations have taken over the operation and management of water and wastewater services, employee wages and benefits have increased, environmental compliance improved, and cities have realized considerable savings.¹⁵

Proponents of privatization of water-wastewater services note that a municipality should identify and evaluate the problems they face before selecting one or more of the privatization options. Advocates suggest that build and operate arrangements might be particularly suitable when cities are facing budget shortfalls, in times of economic recession, and yet need large capital investments to build new and large treatment plants. Privatization promoters also point out that the private sector "is better able to take on risks of operating in climates of increasingly stringent regulations...."¹⁶ However, a review of government service privatization at both the local and state level indicates that most of the cost savings are due to "eliminating salary and benefits, selling governmental assets and using private sector investment to avoid capital costs."¹⁷

Dr. Robert Hawley's extensive study on the influence that ownership has on the performance of water utility companies in the United States, found that "(1) despite remarkably similar background characteristics, ownership structure appears to have a minimal influence on pricing, infrastructure investment, and additional services; (2) the size of a utility's customer base influenced only one measure of pricing along with staffing; (3) overall the models, except in the case of infrastructure investment, proved to be ineffective." Simply put, Hawley's national study, challenges the assumption that privatization alone will improve efficiency in the drinking water industry.¹⁸

An additional concern with privatization is the question of financial transparency. Under operating and management agreements between a city and a private entity, the rates are set by the city. However, those rates are determined in part by the operating fees paid to the private entity. It is not always clear with these arrangements whether there is full financial transparency that allows the city to evaluate whether the fee requested by the company is reasonable. Standard and Poors has also raised concern in regards to credit ratings about foreign companies acquiring U.S. water utilities when the acquisitions are not considered to be "core operations." ¹⁹

ENRON AND WATER PRIVATIZATION

In addition to its forays into energy trading and the deregulated electricity market, Enron sought to develop and profit from privatization of water and wastewater services. In 1998, Enron established a separate entity, Azurix Corporation, which itself had several subsidiaries. Azurix primarily sought to compete in the water utility sector, both here and abroad. In California, however, Azurix' major strategy was to purchase a 13,600-acre ranch in Madera County, as the centerpiece of a private water marketing proposal. The company planned to use the aquifer under the land to store up to 400,000 acre-feet of water in "wet" years and then market that water to Southern California municipalities in "dry" years.

The Azurix proposal generated widespread opposition from local farmers, the county government and the California Farm Bureau,

among others. Farmers were concerned that storage during wet years would raise the water table too much and rot their crops. They were also worried that dry-year pumping would withdraw too much water from the aquifer. Madera County passed ordinances that required permits and detailed scientific studies before the county would authorize either the import or the export proposals.

Azurix did not obtain the required permits before Enron's recent collapse, and the future of the Madera Ranch deal is unclear. Azurix' water and wastewater utility operations (Azurix North America, Inc.) were sold to American Water Works Co., Inc. in 2001. Enron, which bought back most of Azurix in 2000 after the company's CEO resigned in the face of large losses, is now reportedly trying to sell most of Azurix' remaining assets.²⁰

According to Standard & Poors, many of the companies acquiring water utilities in the United States are based outside the U.S., such Vivendi and Suez of France (formerly known as Suez Lyonnaise des Eaux), Kelda Group of England.²¹ These firms have often entered the U.S. market through acquisition of similar U.S. companies. For example, Vivendi, a water services business as well as a multi-media entertainment giant, has acquired US Filter, one of the major private sector providers of water and wastewater services.

In 2000, the City of Atlanta completed the first annual review of its 20-year operation and management contract with United Water Services of Atlanta. The review looked at costs, fees and charges and the overall operating practices of the utility. Atlanta was the first major city to undertake such an all-embracing partnership with the private sector for its water-wastewater services. Though Atlanta's performance review of the contract reflected that all the terms of the contract were being met, the audit pointed out that there were problems in the maintenance of the distribution system—keeping up with the backlog and volume of new repair work-- inadequate coordination of the customer information system and reporting and revenue interface problems between UWSA and the City Finance Department.²²

In Africa, South America and Europe, private sector participation in water supply and wastewater services by multinational corporations has been occurring for a longer period than in the United States. The results of some of these efforts have been mixed and might illuminate issues for U.S. municipalities: water tariffs in some countries doubled, companies lost money because they could not collect utility connection fees in poor areas, and investors withdrew from water projects because they could not get a desirable return on their investments. Governments who have entered into "Take- orPay" arrangements with private water service providers—buying bulk quantities of water whether you use it or not—are vulnerable to charges that public funds are being used to "guarantee multinationals' profits at the expenses of taxpayers/consumers", while at the same time discouraging conservation.²³

A "Take -or Pay" contract requires that the customer agree to pay for a quantity of water whether the water is actually used or not. This form of contract recognizes the value of capacity to deliver over the actual delivery of the contracted product. This is in contrast with "Take and Pay" contract in which the customer agrees to only pay for the quantity of product actually delivered.²⁴ One big problem with a take-or-pay contract is that it greatly undermines incentives for on-going water conservation improvements, since the water must be paid for whether it is used or not.

PRIVATIZATION OF WATER AND WASTEWATER SERVICES IN TEXAS

Eighty percent of the population of Texas is served by municipally owned water utilities, but Texas reflects the water supply system of the United States with its diversified water utility system. In Texas, there are approximately 8000 water suppliers that own and operate individual systems.²⁵ This includes community systems, such as cities, Municipal Utility Districts, water supply corporations, mobile home parks, and noncommunity systems, such as strip centers, recreational facilities, and jails. Of this number, there are approximately 700 investor-owned utilities, 938 municipal utility districts, 13 counties with water systems, 667 Special Utility Districts and 817 non-profit water supply corporations.²⁶

A 1998 national survey indicated that there are municipal utilities in Texas that are interested in various types of public private partnerships for drinking water and wastewater services.²⁷ Some Texas communities have privatized parts of their water-wastewater services, but the extent of those partnerships, whether they are in the form of outsourcing discreet activities or building and managing facilities has not been fully documented. There is no documentation that a Texas municipality has divested its entire water system to a private corporation. The Texas Water Development Board commissioned Reed-Stowe & Company, a firm that specializes in providing services to the private sector companies involved in public water, wastewater and solid waste management, to conduct a study of trends in water and wastewater competition in Texas and privatization strategies. That report, completed in May 1999, identified 43 cities, one utility district and one municipal utility district that were engaged in some form of public-private

contract for water or wastewater services.²⁸ (See Attachment #1) Of that number, Reed-Stowe conducted 18 phone interviews.²⁹ The majority of the municipal utilities interviewed had contracts with a private company or a river authority to operate and manage their wastewater treatment facilities, and one community interviewed had sold its wastewater service to a private company.³⁰ (See Attachment #2)

One recent example of privatization is found in the City of El Paso. In May 2002, the City of El Paso signed a five-year contract with United Water, a New Jersey-based company, which is a wholly owned subsidiary of the French company, Suez, formerly Suez Lyonnaise des Eaux. Under the \$45 million dollar contract, United Water will manage and operate the city's water and wastewater treatment systems, including water treatment, water distribution, wastewater collection, water testing, billing and metering.³¹ United Water's proposal specified a savings to the City of \$4 million dollars year.

Another example is the City of Houston. The City formed the Houston Area Water Corporation, a not-for -profit local government corporation, to not only determine which private company would design, build, operate and manage (DBOM) a new water treatment plant on Lake Houston. The local government corporation will also oversee the contract. Montgomery-Watson was chosen for the contract. It will operate the plant for ten years with a five -year renewal option. Members of the Houston Area Water Corporation (HAWK) determined that a public- private partnership for the development and management of the treatment facility would save approximately \$40 million over the life of contract. The HAWK also concluded that there were additional advantages to the partnership, including allowing for more flexible procurement processes, the absence of a large debt on the city books, and being able to rely on a company that has technological and management experience.³²

In the mid- 1990s the City of Freeport in Brazoria County contracted with US Filter Operating Services, Inc. to upgrade, maintain and manage its water and sewer systems. This contract is similar to the Atlanta contract with United Water Services of Atlanta. US Filter estimates that it is saving the City of Freeport \$120,000 annually.³³ The City of Freeport could not confirm that these savings have actually occurred.³⁴ Moreover, in Reed-Stowe's interview with the City of Freeport, the City indicated that it was not pleased with the customer services being provided.³⁵

In addition to its contract with the City of Freeport, US Filter has a similar public-private partnership initiative with the City of Angleton, which is also in Brazoria County. US Filter has also proposed an arrangement with the Lavaca-Navidad River Authority to design, build and operate a desalination facility. Though the proposal assumes that the LNRA will maintain its existing water rights, US Filter has recommended a financing structure that includes the creation of a local government corporation to oversee construction, act as owner and oversee operations of the plant. US Filter has proposed that the local government corporation secure 'Take- or- Pay' contracts.

Some adjustments have been made to Texas law to facilitate acquisition of retail public utilities by private companies. In 1999, for example, pursuant to SB 1 passed by the 75th legislature (1997), TNRCC amended Chapter 291 of its water rate rules to allow financial recovery for certain system acquisition costs.³⁶

There is still dispute, however, over whether state procurement laws³⁷ require competitive bidding for privatization of municipal water and wastewater services.³⁸

Acquisition of Water Utilities In Texas by Private Industry

There is every indication that private investor-owned utilities, both water and electric utilities, are stepping up their acquisitions of small Texas investor-owned utilities. This trend seems to be common throughout the United States where large utilities are trying to get a foothold in the market and/or expanding.

According the House Research Organization, over the last several years large utility companies have begun to acquire numerous small privately-owned water and wastewater utilities, particularly those utilities that serve rural and unincorporated areas.³⁹ AquaSource, based in Pennsylvania and a subsidiary of DQE electric power company, entered the Texas market in about 1997, and is now the largest investor-owned utility in the state.

The Texas Natural Resource Conservation (TNRCC) has regulatory jurisdiction over investor-owned utilities (IOUs). The private-investor owned utility, even when it buys an existing utility, must submit to the TNRCC an application for a certificate of convenience and necessity, which designates the area in which the utility is allowed (and required) to provide service. The TNRCC must also approve the IOUs rate structure, which is set according to certain criteria established by the TNRCC.⁴⁰

Because of its expanding customer base in Texas, AquaSource's record in the state is worth examining. Since 1997, AquaSource has acquired 240 water and 26 wastewater treatment facilities in 45 counties in Texas serving 35,000

customers. AquaSource's customers from South Texas to North Texas have complained to the Texas Natural Resource Conservation Commission about inadequate water pressure, water outages, wastewater pollution, insufficient water supplies and high rates. A highly publicized example of the troubles AquaSource has had is when it bought the Willow Run Utility in northwest Houston, which served a low to moderate- income subdivision. After AquaSource's acquisition, resident's rates were raised from \$6.80 a month plus \$1.00 per 1000 gallons to \$24.57 a month plus \$2.00 per 1000 gallons. According to AquaSource the rates represent the "true costs" of operating the water system.⁴¹

Many of the systems that AquaSource and other investor-owned utilities have purchased in Texas have been small, under- funded, deteriorating systems. Some have been out of compliance with the Safe Drinking Water regulations, requiring costly upgrades. For AquaSource and other investorowned utilities, it is reasonable to pass these costs on to the consumer. However, such "rate shocks" could adversely affect the provision of basic services to low and even moderate- income ratepayers if adequate protections are not in place.

AQUASOURCE IN TEXAS

In 2001, The Texas Natural Resource Conservation Commission received more than 4000 filed complaints from AquaSource customers who were asking the state to roll back rate increases that had occurred twice in one year. The complaints were filed in response to AquaSource's request to the TNRCC to establish a uniform rate for all its customers no matter which region of the state those customers reside. The cities in which AquaSource has customers also objected to the uniform rate. The rate change would have affected 16 cities. In requesting the uniform rate, AquaSource representatives testified that "spread[ing] the costs of our water systems over a larger rate base helps keep unit cost down and minimizes rate increases to individual consumers." ⁴² AquaSource claimed that it has spent \$74 million to upgrade the 240 water and 26 wastewater systems it has acquired since 1997.

In a settlement agreement reached in September 2001, AquaSource dropped its request of the Texas Natural Resource Conservation Commission to charge a uniform rate for water and sewer fees to all its Texas customers. In its place, AquaSource agreed instead to the establishment of four regional tariffs for unincorporated areas and four separate rates for the cities in which AquaSource has customers. Prior to the settlement, AquaSource had 110 different rate structures.

WATER RATES

The legal structure of the water utility determines how customer rates are set. For example, the Texas Natural Resource Conservation Commission sets the rates based on certain criteria for privately owned investor utilities; city councils set the rates for municipal owned utilities; the elected Board of Directors of Special Utility Districts and Municipal Utility Districts set the rates for those utilities.

The Texas Water Plan and Water Privatization

A Stakeholders Group convened by the Texas Water Development Board in 2001, as part of the State Water Plan process, discussed the role of publicprivate partnerships with regard to large water infrastructure projects. Though not all members of the Group concurred, the Stakeholders Group made the following recommendations to the State Legislature:

- 1) Encourage public-private partnerships in implementing solutions to water needs, where appropriate;
- 2) Educational materials and programs should be developed and distributed on the Web site to assist water resource managers in becoming familiar with the benefits and risks of private investment in water infrastructure projects; and
- 3) Statutory changes should be considered to ensure that State financial assistance could be made available to public-private partnerships⁴³

RECOMMENDATIONS

While certain forms of privatization of water and wastewater services may offer cost-savings and increased reliability and quality of service in some areas, the legislature, the Texas Water Development Board and the Texas Natural Resource Conservation Commission should take steps to ensure that local governments considering privatization are fully informed of and capable of evaluating both the potential benefits and, maybe more importantly, the potential risks of privatization of their water or wastewater services.

Specifically:

- 1. The state should undertake an objective, comprehensive and well-documented analysis of how water/wastewater privatization has fared in the U.S., in other parts of the world and here in Texas and make those results widely available to legislators, local governments and the public⁴⁴;
- 2. The state should carefully evaluate the potential detrimental effects of "take-or-pay" contracts for raw water or water services on incentives for continuing improvement in municipal and commercial water conservation;
- 3. The state should determine what measures are needed to ensure that low-income ratepayers, in particular, are protected from "rate-shock" associated with privatization of water/wastewater systems or acquisition of older private systems by larger private operators.
- 4. The state should not facilitate large-scale private water supply projects or transfers without a thorough public debate on the risks and benefits of such projects including, particularly, the potential for adverse effects on rural areas and the environment.

In its report to the Texas Water Development Board, Reed-Stowe & Company provided some guidelines in the form of questions for cities that are considering the need for using the competitive market to improve their water and wastewater systems. These questions are useful tools for communities and water utility districts.⁴⁵ (See Attachment # 3)

⁴ Standards & Poors, Corporate Ratings, "New Ripples in U.S. Water Industry" <u>www.waterinvestments.com/sponsors/SandP/RipplesInUSWater.asp</u>.

⁸ Before the enactment of Senate Bill 510 during the 77th Legislative Session, municipalities could not contract with a private entity to design, build and operate a municipal facility.
⁹ Eric Calonius, The Privatization of Water", <u>supra.</u>

¹⁰ World Bank Group, "Toolkit 1: Selecting an Option for Private Sector Participation," The World Bank Group. Available online at

http://www.worldbank.org/html/fpd/wstoolkits/kit1/contents.html .

¹¹ "For Texas now, water and not oil is liquid gold", *New York Times*, April 16, 2001, Jim Yardley.

¹² Peter Yolles, "Update 2000: Progress and Limitations in Developing a Water Market in California" in *Water Resources Update* # 118, Universities Council on Water Resources, January 2001, available at <u>www.uwin.siu.edu/ucowr/updates</u>. ¹³ Ibid.

¹⁴ Public Citizen, <u>Water Privatization: A Broken Promise (Case Histories from Throughout the United States)</u>, October 2001.

¹⁵ Robin Johnson and Adrian Moore, "Opening the Floodgates: Why Water Privatization" Reason Public Policy Institute, Policy Brief 17: August 2001<u>. www.rppi.org/pbrief17.html</u>; See, generally, Private Sector Participation in Urban Water Supply, *Water Resources Update* # 117, October 2000, available at www.uwin.siu.edu/ucowr/updates .

¹⁶ U.S. Water, Hot Industry Topics, <u>http://www.us-water.com/hot/hot.htm</u>.

¹⁷ "Create a Special Process to Review and Recommend Privatization Opportunities," January 7, 2002, <u>http://www.window.state.tx.us/tpr/btm/btmcg/cg/cg06.html</u>

¹⁸ Dr. Robert F. Hawley, "Comparing Public and Private Water Companies: The Potential for Improved Efficiency Through Privatization," (Center for Economic Development Research and Services, University of Texas at Arlington, 2000)

¹⁹ Standard & Poors, <u>supra.</u>

²⁰ "Enron's looming demise sinks Madera Co. water bank plan", <u>The Fresno Bee</u>, December 2, 2001; "Azurix treads water in California project", <u>Houston Business Journal</u>, September 1, 2000; "Enron's Azurix water unit up for sale", December 13, 2001,

www.watertechonline.com/News.asp?mode=4&N_ID=27967.

²¹ Standard & Poors, Corporate Ratings, "New Ripples in U.S. Water Industry" <u>www.waterinvestments.com/sponsors/SandP/RipplesInUSWater.asp</u>.

²² Atlanta Water Contract Review Shows Highs and Lows of UWSA Performance. <u>http://www.amwa.net/archives/fwr2000/july_august_00/july_august-00-fwr.html</u>

²³ Public Services International, World Water Forum, "PSI Briefing on: The Way Forward-Public Sector Water, <u>http://www.world-psi.org/</u>.

¹<u>http://www.window.state.tx.us/tpr/btmcg/cg06.html</u>.

² Eric Calonius, "The Privatization of Water," *ITT Industries: Guidebook to Global Water Issues* <u>http://www.itt.com/waterbook/privatization.asp</u>.

³ Dr. Robert Hawley, "Comparing Public and Private Water Companies: the Potential for Improved Efficiency Through Privatization," (Center for Economic Development Research and Services, University of Texas, Arlington, 2000)

⁵ Bevin A. Beaudet, "Privatization and the Future," American Water Works Association Journal, Vol. 92, Issue 1 (January 2000),48-49.

⁶ Ibid, 49.

⁷ Joe A, Dysard, "Trends in Privatization: Competition is Changing the Face of the Public Water Supply Profession," American Water Works Association Journal, Vol. 91, Issue 11 (November 1999), 45.

²⁴ World Bank Group, "Toolkit 1: Selecting an Option for Private Sector Participation," The World Bank Group. <u>http://www.worldbank.org/html/fpd/wstoolkits/kit1/contents.html</u>.

²⁵ Phone conversation with Doug Holcomb of Texas Natural Resource Conservation Commission, June 2002.

²⁶ Texas Natural Resource Conservation Commission, Utility County Reports, June 4,2002. Obtained from Doug Holcomb, TNRCC, Utilities & Districts Section, Austin

²⁷ Dysard Joe, <u>supra.</u>

²⁸ Reed-Stowe & Co., <u>supra</u>, p. 39.

²⁹ Ibid. Attachments 1-2.

³⁰ Ibid.

³¹ Tricia Cortez, "Water Workers Meet New Boss," May 21, 2002. El Paso Morning Times ³² Phone conversation with City of Houston Water Department Chief Engineer, Dominque Gbenoba, January 9,2001. Also see, Jim Barlow, "Finding Efficiency in Water Delivery," Houston Chronicle, April 27,2001. HoustonChronicle.com.

³³ USFilter, "Examine alternative institutional structures for the implementation of a water development and delivery sytem, and the cost implications of those alternatives." Part of Appendix D, Regional Water Plan, Region P, available at <u>www.twdb.state.tx.us</u>. (copy also available from TCPS).

³⁴ Telephone conversation with Freeport City Manager, Ron Bottoms on January 17, 2001.

³⁵ Reed-Stowe & Company, <u>supra</u>, pg 1 of 2 of Attachment.

³⁶ Texas Administrative Code, 30 T.A.C. chapter 291.

³⁷ See generally Title 10, Texas Gov't Code. Specific city charters may also contain procurement regulations that affect potential privatization of water and wastewater services.
 ³⁸ Reed-Stowe & Company, supra, pp. 57-59.

³⁹ House Research Organization, Bill Analysis, HB 1281, prepared April 18,2001, Texas House of Representatives, Austin, Texas.

⁴⁰ If the utility is within a municipality, the municipality approves the rate structure, unless it decides to relinquish that responsibility to the TNRCC.

⁴¹ Rachel Graves, "Acres Homes Residents Seek Lower Water Rates" Houston Chronicle, Wednesday, November 1, 2000.

⁴² Zeke MacCormack, "Water fee fight Settled: AquaSource drops bid for Uniform Rates" San Antonio Express-News, Metro Section, Thursday, September 27, 2001.

⁴³ Texas Water Development Board, <u>Stakeholders Report—Policy Issues and</u> <u>Recommendations</u>, pp. 12-13, Fall 2001, available at <u>www.twdb.state.tx</u> (click on "Stakeholders' Forum Report).

⁴⁴ While the 1999 Reed-Stowe study is a good starting point, it has some limitations. First, it is a bit dated and may not reflect more recent experience with privatization in Texas cities. Second, the study lacks quantitative data on purported cost savings of privatization in the various cities. It also reflects primarily subjective evaluations via an interview process, versus a more rigorous quantitative analysis of the risks and benefits. The report is also mainly focused on wastewater privatization, and there are additional concerns applicable to water privatization not reflected in the report. Finally, it appears to include several examples of systems being contracted to or bought by river authorities, which are not private companies, but no distinction between the two types of entities is made in evaluating cities' experience.

⁴⁵ Reed-Stowe & Company, <u>supra</u>, p.3.