

# Evaluating Privatization II



**An AMSA/AMWA Checklist**

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Both AMSA and AMWA are hopeful that *Evaluating Privatization II: An AMSA/AMWA Checklist* will strengthen the position of decision makers as they evaluate the merits of public water and wastewater utility management and operation alternatives and, ultimately, selection of the best local course of action.

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# Executive Summary

In the decades since passage of the Safe Drinking Water Act and the Clean Water Act, the nation's publicly owned drinking water and wastewater utilities have made remarkable contributions to the health of the American public and the integrity of our natural ecosystems. More than 16,000 wastewater utilities now provide reliable wastewater treatment services to 70 percent of the U.S. population and more than 99 percent of its urban population. Most of these facilities administer the national industrial wastewater pretreatment program in partnership with EPA, which requires more than 200,000 factories nationwide to remove toxic and other harmful pollutants from effluent prior to discharging to public sewers. Some 54,000 community drinking water systems provide drinking water for over 250 million Americans, who enjoy the benefits of safe water each day when they simply turn on a faucet.

But the contributions of the nation's publicly owned drinking water and wastewater utilities go far beyond supply and purification. Every day, Americans rely on clean water for recreation, commercial fishing, and a wide range of industrial activity. These economic activities generate billions of dollars in income every year, none of which would be possible without the clean water resource base on which they rely. Our public utilities have enabled cities, private investors, and local communities to restore rivers, lakes, beaches, and adjacent lands to productive community assets like riverwalks, urban recreation facilities, wildlife preserves, and education centers. Adequate safe drinking water supplies and adequate capacity to safely manage wastewater are both key to industrial production, public safety, and the general welfare of communities. The very existence of clean natural ecosystems increases the economic value of adjacent lands and nearby development. Safe drinking water nationwide assures American industry of a healthy, productive workforce from the smallest town to the largest city.

These achievements represent a public investment of nearly \$2 trillion. In the decades to come, drinking water and wastewater utilities will face new financial and management challenges. As facilities age, they will require continuous maintenance and rehabilitation. Many will expand to meet the needs of growing populations. Integrated, watershed-based resource protection will require strong partnerships linking utilities, other government agencies, and agriculture, industry, and transportation needs. Managing urban stormwater will require system-wide integration and could require significant reinvestment in sewers and other capital facilities. Increasingly stringent drinking water standards will require continuous improvements to treatment processes and potentially new technologies and management approaches.

Under these conditions, it is not surprising that many local officials are asking, "what is the most efficient way for my jurisdiction to provide the full range of drinking water and wastewater utility services?"

The Association of Metropolitan Sewerage Agencies (AMSA) and the Association of Metropolitan Water Agencies (AMWA), and their municipal members take great interest in making sure that each jurisdiction answers this question fully, by considering all dimensions of drinking water and wastewater utility service. This checklist provides a framework to evaluate the options generally facing local government:

- *Reengineering* — In-house techniques used successfully by public managers to enhance operating efficiencies, reduce costs and improve services
- *Contract Operations* — Public ownership of assets, but private operations under competitively procured service contracts
- *Asset Sales* — Public divestiture of both management responsibilities and capital assets to private companies that agree to provide drinking water and/or wastewater management services.

While most public drinking water and wastewater utilities already provide safe and reliable services at low cost, all recognize that continuous improvements in quality and reductions in cost can benefit the entire community. Despite only limited systematic field experience (less than one percent of all municipal drinking water and wastewater systems are privately operated under contract to a public agency), proponents claim that privatizing the nation's drinking water and wastewater utilities could yield significant savings for local government. Only a handful of cities have completed a sale of their drinking water or wastewater utility assets to private concerns.

At the same time, many municipal organizations have taken steps to reengineer their operations to match or better the efficiency of the private sector. To date, more than 500 of the nation's largest drinking water and wastewater utilities have undertaken comprehensive efficiency audits of their operations. Having experienced the pros and cons of private ownership and/or operations, some utilities have chosen to re-municipalize their water systems.

All of these options have the potential to reduce the cost of operating a drinking water or wastewater treatment plant in the near term. But questions remain about the stability of cost savings, transfers of costs elsewhere within local government, risks to the environment and public health, effects on public employees, compliance with environmental laws, implications for public finance, and effects on government institutions. Full consideration of all these concerns establishes a level playing field for comparing public and private options.

## Reengineering Public Ownership and Operation

In most cases, reengineering public operations can improve even the most efficient public drinking water or wastewater utility. Opportunities for improvement generally lie in process automation, cross-training staff, reductions in force, skills- and performance-based compensation, entrepreneurial sales of goods and services, predictive maintenance, modern inventory and warehousing systems, cooperative purchasing of chemicals and equipment, and contracting for the provision of non-core functions. Savings, of course, will vary from place to place, but 20 percent reductions in system-wide operations and maintenance budgets are not uncommon. One public utility recently offered to contract with the city to perform the same wastewater management services for 67 percent less than the previous year's budget by instituting a variety of management and personnel reforms. This public bid was 20 percent lower than the lowest private bids.

## Private Contract Operation of Publicly Owned Facilities

Under private contract operations, private vendors compete for the right to provide drinking water or wastewater management services under contract to local governments. The choice of both the competitive process for selecting a private vendor and the terms of the resulting contract will depend on local procurement conventions, securities laws, the complexity of the operation to be privatized, and other factors.

Recent contracts in major U.S. cities have been awarded at projected savings of 20–40 percent compared to past public operations, but experiences over the longer term suggest that these savings are not necessarily guaranteed. Savings from private operations of the Atlanta water system, for example, have fallen far short of the promised \$20 million a year (discussed subsequently in this document).

Under a managed competition, the public sector is invited to bid along with private vendors for the contract to supply drinking water or wastewater services. These can become relatively complicated undertakings that require experts in procurement, cost accounting, and contract law. But some contracts, won by both public and private providers, have yielded significant savings. In many ways, public providers have distinct advantages in these competitions since they are already familiar with their facilities, they do not have to demonstrate earnings or pay taxes on those earnings, and may enjoy other financial advantages, such as municipal self-insurance.

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## Private Ownership and Operation of Drinking Water and Wastewater Plants

Sales of public assets to private companies are relatively infrequent in the drinking water and wastewater sectors. Since the passage of the Tax Reform Act of 1986, which eliminated tax-driven incentives for private ownership of treatment facilities, only ten such sales of wastewater utilities have occurred. Few, if any, significant public drinking water facilities have been sold to private firms. Other asset sales have been considered, but political, legal, and regulatory concerns have led communities to explore alternatives.

Nonetheless, some cities facing significant budget pressures may view the sale of their drinking water or wastewater utilities as a way to raise cash quickly. Some offers may, indeed, be lucrative from the perspective of the city's budget. Loss of control over environmental protection and loss of connectivity with related government services are the most frequently cited reasons to reject asset sales. From a ratepayer's point of view, savings from asset sales must be significant, since compared to public ownership, private water utilities must pay taxes, provide shareholders dividends, and generally pay more for capital, all of which must be recovered in water and sewer rates.

## Conclusion

AMSA and AMWA remain vitally interested in improving the environment, public health, and local economies through safe and reliable drinking water and wastewater treatment services. Members believe that public, private and public-private options can all deliver these results. In any instance, all variables must be evaluated and improvements to the environment and the protection of the health and welfare of citizens must be assured. This checklist offers elected officials and

# Errata Sheet

The last paragraph on page 7, titled Conclusion, should have printed as follows:

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# I. Introduction and Overview

Today's drinking water and wastewater utilities are tasked by their communities to be full-service providers. Exactly what are these services? Are some utilities appropriate for privatization? Should some services be privatized and others remain a public responsibility? What happens to the efficiency or effectiveness of operations if one service is separated from the others?

This overview introduces these and related issues. The checklists that follow explore each issue in more detail.

## Public Drinking Water and Wastewater Utilities Provide a Full Range of Services

What kinds of services do public drinking water and wastewater utilities provide? The first and most obvious wastewater utility services are environmental: removal of raw sewage from homes and businesses, purification of sewage before releasing it to the environment, safe handling and disposal of biosolids, and protection against airborne releases of pollutants. Water utilities provide both public health and public safety services such as pure drinking water and adequate quantities of water for fire fighting. All of these environmental services must be provided with comfortable margins of safety to assure compliance with federal, state, and local environmental requirements.

But drinking water and wastewater utilities also provide many other types of services to individual firms and the community at large, including, for example:

- protection against sewer backups, fires, and explosions under the national industrial wastewater pretreatment program;
- technical assistance on wastewater treatment and waste minimization to industrial customers;
- ambient water quality, groundwater, and sediment monitoring;
- provision of reclaimed water supplies;
- septic tank retrofitting and septage pumping;
- acceptance and treatment of trucked scavenger wastes from sources such as septic tanks, holding tanks, grease traps, portable toilets, landfill leachates, and settling basins;
- system security, disaster planning, and emergency preparedness and response;
- cooperation with neighboring local governments or large institutional users such as universities, military installations, or government complexes;
- public education and outreach programs;
- participation with state and federal regulatory agencies on issues of policy and rule-making;

- maintenance and operation of a geographic informational system (GIS) data bases;
- installation and maintenance of fire hydrants;
- public recreation in watersheds and/or reservoirs;
- long-range water resources and watershed-based planning and management; and contract pumping station operation and maintenance.

It may not always be the case that a private, for-profit corporation will provide these same services, or if it does, that its quality and/or reliability will be acceptable. At the same time, it may not always be the case that the governments are providing the desired bundle of services to the public or that they are doing so at the lowest possible cost. Evaluating the three options presented in this checklist can help identify alternative forms of public and private management that can improve service delivery and reduce costs.

## Current Status of Privatization

The privatization of government services is not new. In fact, drinking water and wastewater utilities have been contracting for the private provision of non-core functions for decades, and every day, their managers face “make or buy” decisions as part of their ongoing responsibilities. The most commonly contracted services include: building and grounds maintenance, billing and collection of payments, engineering design and construction management, and biosolids management. Contracting for the private delivery of drinking water and wastewater management services in its entirety also is not new, although less than one percent of all wastewater utilities are under private contract. Interest in operating contracts is growing, however, and private firms are aggressively seeking new opportunities to provide expanded services to local governments.

The sale of drinking water and wastewater utility assets – divestiture – is relatively new. Such an approach was growing in popularity in the late 1970s and early 1980s because of attractive tax treatment under the existing United States tax code. When the 1986 Tax Reform Act eliminated these provisions, private interest in asset ownership disappeared. Executive Order 12803, signed on April 30, 1992, changed the landscape once again by clarifying whether and under what terms the federal government must be repaid for its investment upon the sale of a federally funded asset to the private sector. In essence, the Executive Order eliminated the requirement to repay the federal investment in full by establishing that the sale price shall be distributed in the following order: (1) repayment of the original cost (not depreciated) of all state and local government investment to date, (2) if proceeds remain, repayment of only the undepreciated (using IRS accelerated depreciation schedules for the asset classes in question) portion of the federal investment, and (3) remaining proceeds to state and local government. The U.S. Environmental Protection Agency (EPA) must approve such transactions since they originated the federal grant in question.

Under these terms, a private purchaser need only offer a local jurisdiction the return of local investment in the facility to make the transaction attractive. This greatly reduces the potential sales price for federally funded assets and provides a significant incentive to private firms to make such offers. From the perspective of a local elected official trying to balance a jurisdiction’s budget or raise funds for other needs, a cash offer can be very attractive. To date, EPA has approved only ten sales of wastewater assets to private companies (Franklin, Ohio; Cranston, Rhode Island; Fairbanks, Alaska; Danbury, Connecticut; Wilmington, Delaware; Arvin, California; Woonsocket, Rhode Island; Scranton, Pennsylvania; and Naugatuck, Connecticut). While there has been considerable consolidation within the private water utility sector, there have been few, if any, sales of significant public water systems to private firms.

# Reengineering Public Drinking Water and Wastewater Management Programs

The reinvention of government is very much a part of the solution to high-quality, efficient drinking water and wastewater management services. Increasingly, drinking water and wastewater management authorities are reexamining their own operations and taking steps to reduce costs. Options include increased instrumentation and automation of processes, cross-training of staff, interlocal cooperative purchasing agreements, sales of reclaimed effluent and biosolids, and marketing of public management expertise to neighboring jurisdictions.

In the face of this trend, public managers often encounter obstacles that limit their ability to take bold management steps. Among the most frequently cited are cumbersome and protracted purchasing restrictions, personnel and employment policies that do not reward performance or innovation, and limitations on how operating savings can be used. While most of these policies are in place for a reason – they support social goals or are intended to protect the public interest in other ways – they also can act as disincentives for management efficiency, and can bias public-private comparisons.

Other advantages are enjoyed exclusively by public entities. First, publicly owned and operated drinking water and wastewater utilities often have access to tax-exempt financing, which can reduce debt-service costs compared to the taxable financing available to private providers. Second, public agencies do not seek earnings to support valuation of their equity nor do they pay taxes on those earnings, both of which reduce public costs of service. All these factors can lead to significant savings under public provision and translate into reduced water and sewer rates.

## Competition – The Key to Efficient, High-Quality Services

The debate over who should provide drinking water and wastewater utility services to communities is about effectiveness, efficiency, and equity. Under normal market conditions, there would be little debate – the lowest-cost provider of the desired level, quality, and distribution of services would prevail. But drinking water and wastewater utilities deliver principally public goods – public health and environmental quality – for which no observable markets exist. Moreover, because of economies of scale and high fixed costs, only one entity at a time typically provides such services within a community. Under these “natural monopoly” conditions, effectiveness, efficiency, and equity are more difficult to assure regardless of whether the public or the private sector is providing the service.

Creating competitive conditions to guide the choice and quality of services as well as their price is the fundamental solution. This AMSA/AMWA checklist will enable public decision makers to review the competitiveness of public services and the potential merits of two forms of private service with full consideration of the short- and long-run costs and risks to service, effects on public employees, compliance with environmental laws, implications for public finance, and effects on government institutions.

## Organization of the Checklist

The checklist that follows is organized into three sections:

- *Reengineering* — In-house techniques used successfully by public managers to enhance operating efficiencies, reduce costs and improve services
- *Contract Operations* — Public ownership of assets, but private operations under competitively procured service contracts
- *Asset Sales* — Public divestiture of both management responsibilities and capital assets to private companies that agree to provide drinking water and/or wastewater management services.

Each section considers the merits of the approach in question, beginning with a simple checklist of relevant issues. Each then examines effects on costs, consumer rates, risks to services, public employees, compliance status, finance, and institutions.

# II. Reengineering Public Management

## The Checklist

- Automating Processes with Enhanced Instrumentation
- Contracting-Out Appropriate Functions
- Reducing the Cost of Materials and Chemicals with Cooperative Purchasing Agreements
- Creating Performance-Based Incentive Programs for All Employees
- Generating Savings or Income from Reclaiming By-Products
- Taking the Offensive: Becoming an Entrepreneur by Selling Services
- Cross-Training Staff
- Right-Sizing and Human Resource Reforms
- Reforming Cumbersome Procurement Restrictions
- Adopting More Proactive Maintenance Strategies
- Reducing Parts and Supplies Inventories

## Overview

Like many industries and public organizations, local drinking water and wastewater management agencies are taking steps to improve their performance and reduce costs. The systematic evaluation of drinking water and wastewater utility operations with these goals in mind is often referred to as “reengineering.” Agencies that routinely build self-evaluation and reengineering processes into their yearly operating plans are among the most consistently efficient and successful operators in the business. Others take such steps in response to outside pressures (such as a proposal to engage a private operator or sell the utility to a private concern) to improve performance.

Regardless of the incentive to act, the process of reengineering often results in higher-quality services and/or reduced costs. As costs are reduced, many public agencies find that they can out-compete even the most efficient private provider since public agencies do not make a profit (beyond amounts needed to fund reserves), do not have to pay taxes on their earnings, and have broader access to less costly tax-exempt financing and soft loans under state revolving fund programs. Savings of up to 50 percent in the costs of some functions are common.

Ultimately, total savings will depend on the efficiency of existing operations and other factors. Yet it is not unusual to generate 20 to 25 percent net savings utility-wide by implementing an appropriate mix of reengineering techniques. In one analysis, the County Sanitation Districts of Orange County, California, estimated a 23 percent gain in efficiency (by reducing operations and maintenance (O&M) costs while maintaining current service levels and quality) across their operations and \$12.6 million in savings associated with implementing six reengineering techniques. A similar analysis in Charlotte, North Carolina suggested savings of \$1.7 million a year, or a 62 percent

reduction from the 1996 budget for labor, power, and chemicals for two of the city's wastewater treatment plants. The City of Phoenix Water Services Department is completing the first two phases of a reengineering program for its Water Production and Wastewater Treatment Divisions, which combined will deliver savings of \$63 million over the next six years. In 1996 – the first year of reengineering efforts – Orange County Utilities, Florida, reduced its operating budget by \$2.4 million and in 1997, the utility eliminated another \$2.5 million through savings in its drinking water and wastewater operations.

Often, a utility begins a reengineering process by conducting an in-depth analysis of the performance of its own operations, relative to a well-articulated set of objectives. Two compatible processes are available to take the next step. The first is known as performance benchmarking, where a utility compares its performance indicators to those of the “best in class” utilities, normalized for certain parameters such as size and technology. Results often provide targets for improvement, expressed in terms of percent savings that should be attainable through, for example, process automation or cross-training of a reduced labor force. The Massachusetts Water Resources Authority, for example, completed such a process; they invited an expert group of peer wastewater utility managers to review their operations and offer suggestions for more efficient operations based on benchmarks drawn from their own experience. With the help of a specialty consultant, Denver's Metro Wastewater Reclamation District, Colorado, also completed an analysis of its operations relative to benchmarks drawn from both U.S. and British wastewater utilities. The City of Fort Wayne's Utilities Division, Indiana, commissioned a competitiveness assessment study in 1995 to benchmark its water distribution maintenance and other utility work practices against leading private utility operators. The study identified opportunities to improve productivity and cut costs in the water and sewer utility by \$3.8 million a year.

The second process is sometimes called continuous improvement benchmarking, where a utility tracks changes in its own performance indicators over time and compares them to those of a “benchmarking partner” that is similar in size and structure, with the objective of continuously improving its own performance. Such a trend analysis helps track improvements over time and can demonstrate real progress to the public.

These and similar approaches often lead to changes in operational policies, mixes of labor and capital, investment strategies, institutional structures, incentive systems, organizational management and reporting structures, and other key variables.

AMSA and AMWA have documented reengineering progress and results in two companion publications: *Thinking, Getting, and Staying Competitive: A Public Sector Handbook* and *Creating High-Performance Business Services: A Public Sector Handbook*, which cover reengineering core O&M functions and business support functions, respectively.

## Discussion

### ✓ Automating Processes with Enhanced Instrumentation

Tracking throughput precisely with computer instrumentation can identify bottlenecks in sequential unit operations and prescribe exact amounts of energy and chemicals needed to optimize system performance. Instrumentation also may record and process information for later analysis. Automation entails the replacement or elimination of the intermediate components of a system or steps in a process, especially those involving human intervention or decision-making, by technologically more advanced ones. Both instrumentation and automation may be particularly effective for drinking water and wastewater utilities that face low labor productivity.

While the original investment may be substantial, an appropriate level of instrumentation and automation often results in long-run efficiency gains and cost savings. There is no standard for

savings, which will vary with the existing level of instrumentation. Yet many drinking water and wastewater utilities can net up to 20 percent savings from total operating costs with appropriate instrumentation and automation. Orange County Utilities, Florida, installed a supervisory control and data acquisition (SCADA) system for its drinking water production facilities in 1995, which reduced the number of system operators from 16 to nine. The investment in automation and instrumentation facilitated dramatic savings in labor that the utility's Quality Initiative could not have achieved without this technology. It also facilitated a much flatter organization and consolidation of several departments. Based on these successes, Orange County Utilities continues to expand its SCADA system to include lift stations and three regional wastewater treatment facilities.

### ✓ **Contracting-Out Appropriate Functions**

Some drinking water and wastewater systems find that contracting for the private delivery of certain portions of their operations, while retaining control over the system as a whole, makes financial sense. Typically, where sufficient competition and multiple vendors exist to assure quality performance and low cost, drinking water and wastewater utilities can buy commodity-like services "on the market" and reduce costs compared to performing the same functions "in-house."

Water and wastewater utilities also choose to contract out certain functions for other reasons, which will vary from place to place. The Massachusetts Water Resources Authority (MWRA), for example, needed extra staff to focus on the start-up of its new Nut Island facility. The authority chose to contract out operations of its Quincy facility for an 18-month period and transfer trained MWRA staff to Nut Island to meet these needs. The staff from Quincy returned to their original plant after 18 months, when staffing needs declined at Nut Island.

Examples of functions that are successfully contracted out include: grounds, building and vehicle maintenance; security services; specialized maintenance services, e.g., boilers, elevators, and cranes; laboratory and analytical services; administration, billing, and collections; source control; biosolids management and marketing; engineering; training; payroll processing; legal; and accounting.

### ✓ **Reducing Costs of Materials and Chemicals with Cooperative Purchasing Agreements**

Cooperative purchasing agreements allow a consortium of public entities to reduce the unit costs of chemicals, vehicles, computers, and equipment by buying in bulk. Kansas City Water Services Department, Missouri, for example, is part of several multi-county, multi-city purchasing consortiums, which enable this water/wastewater utility to save at least 10 percent of the cost of nearly all capital equipment and supplies. In the first year of their participation in one such agreement, the utility saved 35 percent of the cost of their fleet, compared to the cost of a new fleet purchased outside the agreement.

### ✓ **Creating Performance-Based Incentive Programs for All Employees**

Many public organizations have found that employee performance improves when salary and bonuses are tied to well-defined performance measures and targets. At the Union Sanitary District in Alameda County, California, managers "contract" for certain performance levels and are given the budget and the flexibility needed to attain contracted results. Changes in compensation are tied to performance levels. Outstanding performers advance while under-performers do not. Such a system quickly rewards innovation and cost savings and discourages non-performance.

Beginning in July 1996, the City of San Diego, California, initiated a performance-based program for approximately 345 employees in the Metropolitan Wastewater Department's Operations and Maintenance Division. The performance plan provided cash incentives for employees based on the achievement of detailed performance objectives. All cash awards were funded from a portion of

savings derived from meeting targeted goals. No individual employee was eligible to receive more than \$1,000 annually from this program. Working with its labor unions and its Board of County Commissioners, Orange County Utilities, Florida, crafted a one-year, gain-sharing plan that shared savings among the County's general fund, utility employees in the form of bonus checks, and a special fund retained by the utility to offset future rate increases.

The City of Houston worked with a national consulting firm in performing an organizational assessment with the goal of becoming a utility which could compete with the private sector in the operation and maintenance of the City owned utility. The Water Production Branch formed a Pilot Group and Steering Committee to lead the effort in "optimizing" the utility. The Pilot Team was able to streamline the traditional work practices as well as the treatment processes at the City's surface water treatment plant. Cross-training proved to be a key element in the accomplishment of required operation and maintenance duties with a reduced number of people. The Branch was able to reduce the staff by 26% and chemical costs by 30%. Another key element in this new program was the expansion and incorporation of the Branch's SCADA system. Properly planned and designed automation systems allow utilities to transform to a less labor-intensive operation.

### ✓ **Generating Savings or Income from Reclaiming By-Products**

Many drinking water and wastewater utilities seek sources of income from all facets of their operation – not just from traditional customer rates and charges. One potentially significant source is sales of biosolids as soil conditioners or fertilizers. Another is sales of treated effluent as irrigation water for golf courses, public lands, parks, and the like.

The City of Altamonte Springs, Florida, a suburb of Orlando, delivers reclaimed effluent for landscape irrigation to more than 6,500 homes and businesses in their service area. With charges on the order of \$10 per month per home (and about \$1.00 per thousand gallons for commercial accounts), the city is profiting from the service.

Many wastewater utilities generate substantial revenue streams by reclaiming biosolids for productive uses. Austin, Texas, for example, markets conditioned biosolids as "Dillo Dirt," a composted soil conditioner and fertilizer. Other cities simply sell liquid biosolids to farmers for land application in lieu of chemical fertilizers.

Other utilities have found innovative ways to offset operating expenses, such as electricity. From the methane it generates on-site, Denver Metro, by arrangement with a private energy producer, produces electricity for its own use and possible resale to the local electric grid.

### ✓ **Taking the Offensive: Becoming an Entrepreneur by Selling Services**

Some drinking water and wastewater utilities have "taken the offensive" by becoming more entrepreneurial, taking on con-tract operation assignments for neighboring jurisdictions as a business, or by selling services specifically to generate revenue. Columbus Waterworks, Georgia, has expanded its operation to provide drinking water to three neighboring jurisdictions. Numerous drinking water and wastewater utilities have already sold services to nearby military bases in response to the Department of Defense directive to divest on-base utility services. Orange County, California, created a General Services Division specifically to sell services to the local governments within the County. The Atlantic County Utilities Authority, New Jersey, sells laboratory services and landfill monitoring to the County, neighboring cities, local schools. The Authority also sells excess vehicle maintenance capacity to local governments. In Alameda County, California, the Union Sanitary District is providing sewer cleaning services to a neighboring city.

In the mid-1990s the City of San Diego reached agreement with the International Boundary and Water Commission (IBWC) to provide ocean monitoring services for the IBWC's new wastewater treatment plant and outfall located in San Diego, just north of the Mexican border. The Environmental Monitoring and Technical Services Division of the San Diego Metropolitan Wastewater Department was awarded a one-year, \$1.1 million con-tract to conduct these services.

Orange County, California, buys natural gas, liquifies it, and resells it at a profit to local truckers (who are required to use liquid natural gas) who haul the utility's biosolids for disposal.

## ✓ **Cross-Training Staff**

Training staff to perform multiple functions can result in fewer employees and significant labor savings, especially if undertaken in conjunction with a reduction in force.

The Fort Worth, Texas Water Department's water and wastewater utility slimmed its workforce through attrition from 850 to 700 over a period of three years. During this process, remaining employees were retrained to perform multiple functions. Savings were estimated at \$400,000 a year.

The Massachusetts Water Resources Authority's Deer Island wastewater treatment plant originally planned a staff of 511 positions. Through cross-training and other workforce changes, a 12-member peer review panel recommended that the plant could be operated much more efficiently and still maintain adequate margins of safety with an operations and maintenance staff of 400 plus 55 staff for laboratory support (about a 10 percent savings in labor costs). As of May 1, 2002, total staffing at the Deer Island Treatment Plant (excluding the lab) is 270, reflecting workforce changes such as reduced off-shift staffing, and other changes such as increased automation and improved maintenance planning. All staffing reductions to date were achieved through attrition. Currently, MWRA is implementing an-agency wide cross-training program to improve O&M productivity.

Orange County Utilities, Florida formed an 11-member employee quality team to design and implement a cross-training program. Once the pilot program was developed, eligibility was open to the entire staff and the employee team chose participants. A year later, a Divisional Cross-Training Committee was formed to implement this highly successful program across the utility.

Some utilities have combined cross-training initiatives with skill-based compensation. Under these arrangements, salary increases and bonuses are awarded, in part, on the basis of the number of skills each employee has. Employee compensation, therefore, increases in proportion to overall plant productivity. Cross-training coupled with skills-based compensation at the Orange County, California wastewater utility reduced their annual \$53 million O&M budget by more than \$3 million a year.

## ✓ **Right-Sizing and Human Resource Reforms**

Staffing requirements change as public organizations respond to the needs of the communities they serve. Many drinking water and wastewater utilities grew considerably in the 1970s and 1980s as water programs expanded and they took on increasing regulatory responsibilities. More recently, many have chosen to downsize in response to maturity within their organizations and experience operating their facilities in different ways. These entities have created many ways to deal with the human resource implications of downsizing.

Most utilities downsize through attrition over several years. It is not atypical, for example, to experience 4 to 5 percent attrition rates, which over five years will yield a reduction in force of more than 20 percent.

In 1995–96, Orange County Utilities, Florida, created a program called Advance Listing and Employee Re-Training, or ALERT. ALERT provided early notification to affected employees, allowed for open communication during the reduction process, relied principally on attrition, and significantly reduced layoffs through re-training, career counseling, and placement. The program resulted in a reduced, but more flexible workforce and a generally stronger organization. The ALERT program saved the utility \$2.4 million a year.

The Atlantic County Utilities Authority took a somewhat different approach to downsizing. It initiated a one-year Early Separation Program in 1995, which offered a lump sum separation bonus plus health benefits until age 70 to employees who were at least 50 years old. While only two wastewater employees opted for the program at savings of \$380,000 over five years, had only 10 of the 31 eligible employees participated, savings would have totaled about \$1 million over five years.

### ✓ **Reforming Cumbersome Procurement Restrictions**

Many drinking water and wastewater utilities have found two kinds of problems that increase procurement costs. First, in some jurisdictions, procurement hierarchies effectively delay purchasing and require layers of administrative transactions. These problems can be addressed with administrative changes. Orange County Utilities was able to shave three weeks (and significant administrative costs) from its procurement process by convincing its Board to allow managers to make contract awards without Board re-approval if the low bid is at or below the budgeted amount, and without any Board approval up to \$100,000.

Second, some state procurement codes require strict procedures for any purchase over \$10,000. (Others allow a \$25,000 floor, but few state codes allow relatively unencumbered procurement in amounts above \$25,000.) These provisions are in place to protect the public interest in procurement and may be more problematic to change.

Yet, some cities are experimenting with new ways of doing business. The City of San Diego, for example, modified its Municipal Code purchasing procedures to allow the Metropolitan Wastewater Department's Director (through delegation from the City Manager) to sole-source procurements when the financial commitment does not exceed \$250,000.

### ✓ **Adopting More Proactive Maintenance Strategies**

Many drinking water and wastewater utilities have found that maintenance costs are minimum when roughly 75 percent of all maintenance work is planned. Reactive or corrective maintenance, on the other hand, should be minimized since it is significantly more expensive to react to an emergency than to plan for maintenance ahead of time. Planning maintenance activities often requires attention to cross-training staff so that maintenance functions can be accomplished by operations as well as maintenance employees. Some utilities advocate dropping the distinction between operations and maintenance entirely to facilitate continuous maintenance by all staff.

Typically, some form of Computerized Maintenance Management System organizes and schedules such replacement of components in advance of predicted failure as well as a variety of preventive measures such as vibration analysis and response, oils testing, maintenance and/or replacement of electrical switches, and gear box oil changes. Up to 40 percent in maintenance costs can be saved using these techniques.

### ✓ **Reducing Parts and Supplies Inventories**

Some drinking water and wastewater utilities have lowered costs significantly by cutting their parts and equipment inventories and reducing warehouse operations. Like the trend in manufacturing, utilities are adapting some form of "just in time" delivery of parts and supplies by linking their purchasing and warehousing systems with their maintenance management systems. The Fort Worth Water Department, Texas, is currently pursuing such a strategy. The Massachusetts Water Resources Authority has found that blanket purchase orders for non-stock equipment items cut administrative costs and delays in obtaining parts and equipment.

# III. Contract Operations

## The Checklist

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- Cost of Service Issues:**
- Defining Current Public Costs of Service
  - Evaluating Future Public Costs of Service
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  - Impacts on Municipal/Industrial Pretreatment Program

## Overview

Decision-makers worldwide are growing increasingly interested in the potential to improve efficiencies and reduce costs of operating water and wastewater treatment plants through contracts with the private sector. These contracts can vary widely and range from long-term commitments to finance, build, and operate publicly owned facilities through concession agreements lasting 20 years or more (also known as Build, Operate, Transfer – BOT arrangements). In the middle are 12–20 year contracts that require private contributions of working capital and competitively bid operations and maintenance (O&M) contracts lasting 10 years or less. The length of O&M contracts and the ways in which risks are shared between public and private partners can vary widely in O&M arrangements, and these contractual factors will have significant bearing on the potential savings, level of control, and potential impacts on citizens and the environment, as discussed in detail below.

Governments enter into service contracts for operations and maintenance of major system assets for a number of reasons. For existing systems, typical stated goals include the desire to resolve existing operating problems or to achieve cost savings and rate stabilization.

Although in some cases service contracts have resulted in improved performance and/or cost savings, in other instances cost savings have not materialized as expected and operations have not improved. Indeed, while there have been widely touted O&M contract successes – Milwaukee, for example – there have also been numerous instances where the public sector has reestablished operating control of systems where private partners have not met all expectations. In many cases, these “municipalizations” have resulted from unrealistic expectations regarding private sector abilities, incomplete analysis of the direct and indirect costs of privatization, unreliable service quality, and poorly negotiated contracts that leave the government bearing costly risks in the future. In some cases, governments have found that costs were not saved, but merely shifted from one public account to another.

While contract O&M has been used successfully, it may not be appropriate in every case and is often a complex undertaking. Governments must be sure they understand the full complexities of O&M contracting and have taken the steps necessary to minimize risks, maintain linkages among related government services, and ensure that social goals and standards are preserved. The steps necessary to ensure effective O&M contracts, however, will affect the full costs of contract O&M service delivery. In many cases, the costs of managing risks and ensuring against contingencies are not considered in pre-privatization analyses and are not evaluated once O&M contracts are implemented.

Some of the issues to explore when evaluating service contracts for O&M are discussed in more detail in the following sections.

## Cost of Service

### ✓ Defining Current Public Costs of Service

**Issue:** An even-handed comparison of public and private contract costs requires a full understanding of all current costs of providing the service under consideration, including direct and indirect costs. This implies that the service under consideration can be precisely defined and can be separated from other services for the purpose of cost analysis. In addition, it implies that baseline cost data are available from which to compare alternative public and private options. If current accounting information does not facilitate a full understanding of these costs, a cost allocation study should be conducted prior to considering alternative public and private options.

**Discussion:** For the purposes of comparison to private contract costs, public costs of service are those that realistically can be avoided if the service in question is contracted out. Care must be taken in quantifying these avoided costs as local governments may not be able to eliminate, in full, all costs identified.

*Personnel Costs* – The costs of salaries (base pay), additional entitlement, and fringe benefits for staff currently performing the services under evaluation. If these staff perform multiple functions, only that portion of their labor dedicated to the specified services under consideration should be included as a current cost.

*Material* – Raw materials, parts, vehicles, chemicals, office supplies, etc. used solely in the current provision of the service in question.

*Rent* – Costs of use of non-government assets that will not be incurred if the service in question is contracted out.

*Utilities* – Fuel, electricity, telephone, water, and other charges that will not be incurred if the service is contracted out.

*Insurance* – The costs of self- or commercially underwritten liability and casualty insurance that will not be incurred if the service is contracted out.

*Operations Overhead* – Administrative costs within the agency; contracted professional services (legal, engineering, accounting); and contracted outside maintenance services such as janitorial, window washing, landscaping, and specialized maintenance that would be eliminated if the service is contracted out.

*General and Administrative* – General governmental costs, external to the agency currently providing services, but required because of the operations of that agency, provided that these costs will not be incurred if the service in question is contracted out.

While direct cost savings are generally attainable, in many cases indirect cost savings are only partially achieved, or are not achieved at all. In some instances, governments do not reduce employment or expenses in peripheral government departments as a result of privatization. In other cases, these indirect cost savings are achieved only after a considerable period of time as a result of the combined changes made in a number of government programs. Since experience differs from government to government, and is dependent on local workloads and employment practices, each government should examine these avoided cost savings carefully and make conservative assumptions about their ability to achieve these indirect savings in practice.

## ✓ **Evaluating Future Public Costs of Service**

**Issue:** Any comparison of public and private alternatives, whether conducted as part of a preliminary feasibility analysis or a detailed evaluation of actual proposals, should compare the proposed costs of future private operations with the costs of future public operations, taking into account any anticipated public “reengineering” initiatives and improvements to procurement and other regulations that may currently constrain public operating efficiency. A comparison of expected future private costs with current public costs under existing public constraints may unfairly represent true public costs in the future.

**Discussion:** Some privatization evaluation methodologies have assumed that, in the absence of privatization, public operations will continue with no change to current practices. In reality, many public operators are actively evaluating current operations against industry best practices and are improving plant efficiency as a result. If these likely future improvements to public operations are not considered in the privatization analysis, public operations may be unfairly penalized. If a decision is made to explore privatization options, a process of managed competition (see the Management Issues checklist), in which public operators prepare bids in direct competition with private operators, can ensure that proposed private costs are compared against expected future public costs.

Managed competition can be a costly process and may not be justified in some instances. Therefore, before proceeding with managed competition, governments may wish to conduct a management review of current public operations, which can project future public costs assuming efficiency improvements are implemented (see the Reengineering Public Management checklist). This evaluation can then be used to assess whether contract operations might offer sufficient cost savings to justify the expense of a detailed managed competition process.

### ✓ **Evaluating Future Costs of Private Contract Operations**

**Issue:** The cost of private contract operations must include proposed private costs, plus additional public costs resulting from contracting to private vendors. Partial or no consideration of these costs can bias choices between public and private provision.

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**Discussion:** Appropriate public costs include, for example, Request for Proposal (RFP) preparation, proposal review, contract negotiation, contract administration, quality control and monitoring, one-time conversion costs, gain or loss on the sale or transfer of assets, and contingency costs (including the costs of change orders). These should be added to proposed private costs. Additional direct income to the public entity and/or additional tax revenues from private operations (if any) should be subtracted from private costs. These cost categories are reviewed briefly below.

*RFP Preparation/Proposal Review/Contract Negotiation* – Costs associated with conducting in-house or consultant feasibility studies, preparing requests for qualifications and requests for proposals, reviewing proposals received, and negotiating a final contract with the winning bidder. These costs, which can be substantial especially for complex facilities, will recur every time the contract is rebid. Costs will vary with the complexity of the facility, but can easily total \$75,000 to \$100,000. In the recent design-build-operate transaction for a 28 million gallons per day (mgd) treatment facility and CSO project in Lynn, Massachusetts, legal and technical support costs exceeded \$3 million. If it proceeds with contract operations, New Orleans contemplates that the successful private bidder to operate its water and sewer services will reimburse the City for up to \$3.6 million in procurement costs. Actual costs of procurement approach \$5.0 million.

*Conversion Costs* – Costs incurred to implement employee and related programs that may be needed as a result of O&M contracts. These costs may include severance pay, early retirement, outplacement services, and staff retraining. Should contract operations proceed in New Orleans, for example, some 715 water and sewer employees would transfer to the private sector, which according to Sewer and Water Board's Pension Committee could result in immediate vesting of benefits and increased public costs of funding and administration of the plan.

*Gain/Loss on Disposal/Transfer of Assets* – If contracting to private vendors results in any transfer of assets to the private sector, gains and/or losses upon transfer must be factored into the cost comparison. Examples of such costs include penalties for early cancellation of equipment or real property leases, and gain or loss on the sale of vehicles, lab equipment, or other capital assets.

*Contract Oversight, Monitoring, and Management* – Public costs (generally labor) of assuring that the contract is executed by both the public and private parties, including costs of reviewing contractor performance and compliance with terms of the contract, will vary from contract to contract, but will generally fall within the range of 2 to 4 percent of the contract value.

*Contingency Costs* – Public costs associated with any actions taken (such as maintaining trained staff in-house) to ensure the public ability to manage risks associated with contractor non-performance (see the Risks to Service and Management Issues checklists). Change orders can be particularly costly and based on the last few large private service contracts including most prominently Atlanta's water system contract, they are becoming a normal practice (see discussion in subsequent section on effects on rates and charges).

*Loss of Income* – When services are contracted out, public agencies may no longer be in a position to enjoy certain miscellaneous revenue streams, such as rent, sale of scrap materials, sale of biosolids and wastewater effluent.

## ✓ **Cost of Other Government Services**

**Issue:** Contract operations for one portion of a utility (e.g., only the treatment plant) can increase the costs of services elsewhere in the system or in related services. These costs should be included in any comprehensive evaluation of public and private options.

**Discussion:** In most contracting scenarios, some water and wastewater service functions will remain the responsibility of the public sector when others are transferred to a private operator. This reduced breadth of public responsibility may raise the cost of providing remaining publicly provided water and wastewater services due to a loss of economies of scope and scale. For example, if the public sector contracts for wastewater treatment services but retains responsibility for the pretreatment program or for collection or distribution system maintenance, unit labor and equipment costs for these functions may increase.

In addition, under public operations, public employees and equipment may be used formally and informally across government departments. Water department employees may be cross-trained to work in the wastewater department, and wastewater department trucks may be used for snow removal or other general government purposes. Some of this resource-sharing may be curtailed as a result of contract operations (to the extent that these functions are not explicitly defined in contracts) and other government service costs may rise as a result.

In Orange County, Florida, for example, the public water and wastewater utility is an active member of the county team providing citizens emergency preparedness services for hurricanes. Since private utilities in the region do not participate in this program, it is unlikely that a private service contractor would participate.

It is important to recognize that many public costs simply do not go away after privatization. The City of Chattanooga, Tennessee, for example, rejected the notion of private contract operations after a thorough review of private bids. Proposed savings were too small to warrant an award. But more importantly, a private contract would have transferred some \$600,000 a year in indirect costs (mostly legal and purchasing costs) to other city agencies. Moreover, the city would have been required to pay all future capital improvement costs.

In the first year of oversight of its contract to manage the city's 246 mgd water utility, Atlanta found the burden of oversight so overwhelming given the volume of paperwork, meetings, and general management required under this complex arrangement, that it was forced to increase its contract management team from 3 to 15 people.

## ✓ **Short- and Long-Term Effects on Rates and Charges**

**Issue:** Rates and charges that result from contract operations will reflect private operating costs as well as the need for private operators to pay dividends to shareholders, make profits to support public stock or private equity valuations, and cover federal and state income tax payments on those profits. Privatization feasibility analyses should assess whether private operations have the potential to generate savings to system users after accounting for dividends, profits, and taxes.

**Discussion:** In order for contract operations to result in savings for ratepayers, private operating and administrative costs must be significantly less than public costs. Typically, a private contractor will need to include a 20 to 30 percent surcharge over operating and administrative costs to cover corporate profits, dividends, and income taxes. A feasibility analysis should identify a significant potential for private cost savings in excess of fees before committing resources to a detailed exploration of privatization proposals.

Currently, private competition for water and wastewater contracts is fierce, and many firms may be willing to accept reduced profits (or even bear losses) to win a new operating contract. This industry competition may reduce contractor fees in the short run and may make contract operations

more viable for some systems. There is, however, a risk that these fees will increase in later years as industry dynamics change and the contractor establishes a dominant presence in the region.

In Atlanta, for example, a private contractor was recently awarded a 20-year O&M contract with annual fees that were fixed except for an inflation adjustment. Observers, including other private firms that lost the competition, commented that the winning firm would incur losses on the contract, at least in the first five years. Within two years, the contract operator has gone back to the city with numerous proposals to increase its income through additional meter installation and debt collection work that it claims was not part of the original contract. The city so far has refused to pay for this work, citing contract clauses that do, in fact, require the private contractor to complete this work. The city also has refused to pay the contractor more, despite their requests for additional payments to compensate meter repairs, hydrant repairs, service line repairs, and water main breaks that far exceeded the contractor's original expectations. Finally, the city has refused to pay for additional expenses that the contractor claims are a result of delays in the implementation of the city's capital improvement projects (CIP).

### ✓ **Long-Term Incentives to Reduce Costs and Rates**

**Issue:** Under public operations, community pressure on elected officials can provide incentives to keep rates low. Under private operations, contractual negotiations or a continuous process of competitive bidding can serve that purpose. If private operations are pursued, local governments must ensure that they have a strategy for providing proper long-term incentives to private operators of a monopoly service to minimize rates.

**Discussion:** In the absence of contractual restraints or the discipline imposed by competition, private firms have incentives to maximize profits by charging monopoly rates. This implies that local governments must ensure that they can negotiate effectively with private operators at the time of contract implementation and can ensure that private operators will continue to offer competitive rates over the long term. A process of periodic rebidding, usually every 3 to 5 years, can be effective in keeping costs competitive. However, this continuous rebidding raises the costs of service delivery both because the RFP preparation/proposal review process is costly and because contractors cannot maximize operating efficiencies without the certainty of a long-term contract. If longer-term contracts are used, incentives for monopoly rate setting must be controlled contractually, through for example, pre-negotiated rate adjustments based on the consumer price index or agreements on sharing of future savings between the private operator and rate relief. Local governments must assess the cost implications inherent in ensuring that private operators have appropriate long-run incentives to minimize operating costs, fees, and rates.

## Financial Issues

### ✓ **Impacts on Outstanding Loans or Other Debt**

**Issue:** Private service contracts may have an impact on outstanding bonds and loans, and future capital financing. If proposed alternatives would require bond defeasance or refinancing, or would raise the costs of future financing, these costs should be evaluated.

**Discussion:** Under a 1997 Internal Revenue Service rule (IRS Revenue Procedure 97-13), private contracts to manage publicly owned drinking water and wastewater utilities can extend to 20 years without causing outstanding tax-exempt debt to become taxable, but only under specific circumstances: (1) at least 80% of the private manager's annual compensation is in the form of a periodic fixed fee, and (2) the contract term does not exceed 80% of the useful life of the facility under private management. If either of these two conditions cannot be met, outstanding debt of the

publicly owned utility may become taxable, which would result in significantly higher public costs and presumably higher customer rates. Accordingly, most private contracts written since 1997 are designed to meet these conditions.

In addition, some State Revolving Fund (SRF) loans require that labor rates for water and wastewater system employees conform to federal government (Davis-Bacon Act) guidelines. If these loans are not repaid as part of contract implementation, private operators may need to adjust planned compensation, which may increase costs. Local governments should carefully assess the potential impacts on existing loans and future borrowing when exploring public and private operating alternatives.

### ✓ **Private Capital Financing Issues**

**Issue:** For operating contracts that involve private financing of capital investments, the cost of this financing may exceed public borrowing costs. This differential in the cost of capital can significantly affect rates.

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**Discussion:** As discussed in more detail in Section IV, Asset Sales, private firms are not eligible for many capital grants or for wastewater (and water in some states) State Revolving Fund loans, and are constrained in their ability to issue tax-exempt debt by restrictive rules governing Private Activity Bonds. If an operating contract includes provisions for private financing of capital or private assumption of outstanding debt, capital costs and revenues required to repay principal and interest could increase. Local governments should consider the impact on financing costs of operating contracts that involve private financing, and ensure that private costs of capital are fully explicit (and not hidden) in private bids. If all costs are not revealed, and service agreements shift the risks of future costs of capital to the public, then future costs could escalate beyond expectations.

## Risks to Service

### ✓ **Risk of Contractual Non-Performance and Default**

**Issue:** In any operating contract, there is some risk that the private operator will not fulfill its obligations. Poor performance ultimately translates into increased risks to public health and the environment. If contract operations is pursued, local governments need to assess the implications of private contractor non-performance or financial default, take steps to manage these risks, and have contingency plans in place in case the contract is terminated for non-performance.

**Discussion:** If local governments decide to pursue contract operations, they must first work to minimize the risk of default or poor performance by performing comprehensive financial and technical due diligence on potential contractors. A two-step bidding process, where a Request for Qualifications (RFQ) round is used to select financially sound and technically qualified firms who are then asked to prepare proposals, can help reduce later risks of default. Expected procurement costs must be added to the private costs of service for comparing public versus private contract operations.

Once a contract is negotiated, some risk remains that the private contractor will default on its obligations. For some privatized services, governments choose to maintain a base level of redundant capacity in-house to respond to these contingencies. This is often difficult for water or wastewater treatment services if there is only one treatment facility. Once contract operations begin, trained staff are often either transferred to the private operator, reassigned elsewhere in government, or find other employment. It can be quite difficult and costly for a community to take over service in a short period of time in the event of contractor default. The cost of maintaining redundant capacity

(if any) and public “step-in” costs upon default must be added to the private costs of service for the purposes of comparing public versus private contract operations.

According to the Atlanta Department of Water, which manages the city’s private water system contract, the operator is significantly behind on meeting its obligations for preventive and corrective maintenance. Other complaints include inadequate billing and collection, monitoring and reporting violations, failure to take adequate security measures, failure to cooperate with the state Department of Transportation on road repairs when water lines need to be replaced or repaired, and inadequate testing and calibration of large water meters. If the city decides to terminate the contract for convenience, Atlanta will pay termination fees in the millions of dollars. Renegotiating the contract will result in increased fees to the current private operator, further erosion of savings, and could result in legal challenges from other private concerns that were unsuccessful in the original competition. Termination for default would incur significant legal costs as well.

### ✓ **Tradeoffs Between Service Risks and Cost Savings**

**Issue:** In any contracting arrangement, risk must be shared between the public and private parties to the contract. In general, the more risk the private sector bears, the more compensation it will demand. Local governments should evaluate the costs and benefits of contract operations once they are sure they have identified all appropriate risks, believe they can effectively negotiate an efficient allocation of these risks in an operating contract, and understand the long-run implications on total service costs of the risks borne by the public and private sectors. In some cases, public agencies may assign risks in a contract, but still not avoid them.

**Discussion:** Operating contracts must identify the full range of construction, operating, financing, regulatory, personal injury, and other risks, and must clearly assign responsibility for these risks. For water and wastewater systems, key risks include unforeseen changes in water or wastewater volumes or constituents, changes in state or federal regulations that increase the costs of compliance, extraordinary maintenance or repair expenses, unforeseen problems in facility upgrades or repairs, and *force majeure* risks such as floods, fires, or other disasters.

In general, there are costs associated with bearing risks. If the private sector assumes risk, they will seek compensation for that risk in their fee structure. If the public sector assumes risk, there will be costs associated with service provision that are not reflected in the contract with the private operator. The most successful contracts are those that allocate risks to the parties best suited to manage them and that have a well-defined process for dispute resolution. However, the costs of an appropriate risk allocation approach should be considered when evaluating private options. The implications of some of these risk categories are discussed in more detail below.

### ✓ **Compliance with Environmental Requirements**

**Issue:** Responsibility for compliance with the full range of federal and state environmental and public health requirements must be clear in any private operating contract. Contractual assignment of responsibility can prove difficult, especially in instances where some portions of the water or wastewater systems are operated by the public sector and others are operated by private contractors.

**Discussion:** Drinking water and wastewater utilities are subject to a complex array of state and federal regulations. Wastewater utilities are subject to NPDES permit restrictions, compliance with biosolids requirements, SARA Title III readiness and reporting requirements, industrial pretreatment program requirements, Clean Air Act permit restrictions, and health and safety regulations. Water supply systems, similarly, have complex regulatory requirements under the Safe Drinking Water Act. When only portions of the system are contracted out, responsibilities for compliance with the applicable regulations and for bearing the costs of non-compliance must be thoroughly documented in the contract. Despite the best planning, however, when services are split

(e.g., if the public sector maintains responsibility for the distribution system and treatment is contracted) disputes can arise that may require litigation to resolve and may hinder efforts to protect the public health or environment. These issues should be thoroughly explored by local governments and residents prior to entering into contract operations.

Separating management of water treatment and distribution is likely to cause significant regulatory problems and could lead to large increases in compliance costs as well as public health liabilities. The series of Microbial and Disinfection/Disinfection By-Product rulemakings conceived by EPA over the past decade (IESWTR, Stage 1 DBP Rule, LT1-ESWTR, LT2-ESWTR, the GW Rule, the Stage 2 DBP Rule, and a yet forthcoming Distribution System Rule) mark the biggest change in water treatment since the introduction of filtration and chlorination at the beginning of the last century. These are not simply new standards. The fundamental approach to drinking water protection is being enhanced in a manner that will accentuate the need for real-time coordination of process controls and complex chemical testing extending from the treatment plant all the way to the tap. The “multiple barriers” concept of microbial protection is being broadened into a risk-based, source-to-tap, tool-kit approach to address a broader range of threats. Competing objectives for disinfection residuals to control microbial outbreaks in the distribution system must be balanced against the need to control disinfection by-product levels in finished water that have been asserted to be linked to miscarriages. These objectives must be resolved in a manner that is unique to the source water and distribution system characteristics of each water system. It will be difficult, if not impossible, to assure adequate protection under these rules if treatment and distribution are managed by separate entities.

### ✓ **Assigning Responsibility for Capital and O&M Expenditures**

**Issue:** Responsibility for investments in needed system maintenance and repairs is often the source of dispute in water and wastewater operating contracts. If contract operations is pursued, local governments should ensure that these responsibilities are clear in the operating contract and any remaining public costs are considered in an evaluation of public and private operating alternatives.

**Discussion:** In many operating contracts, private firms have the responsibility for investments in routine maintenance, while the public sector is responsible for larger capital investments. Certain problems can be addressed appropriately with either maintenance activities or capital investments. A public operator who is responsible for both types of costs will choose the most cost-effective solution. A private operator, on the other hand, has an incentive to promote capital solutions.

In one approach to this issue, limits are set in service contracts that require the private provider to fund the first \$10,000 or the first \$25,000 of any capital investment that the city is asked to make. This provides private contract operators an incentive to bundle many small capital investment requests into one or a fewer number of larger requests.

Clear contract terms and incentives establishing preventative maintenance as a contract objective can offset the need to invest public funds in certain types of capital equipment. But, some public contract managers have found that private operators can technically meet the terms of their contract, but effectively shift maintenance costs to capital investments. Where there is chronic under-investment in maintenance, contract managers note that the need for major rehabilitation or replacement of equipment is apparent only after a facility is returned to the public sector at the termination of the service contract.

Disputes can arise if the public sector perceives that the private operator is under-investing in maintenance, leading to more costly capital investments in the future. In addition, disagreements over interpretations of routine maintenance expenditures versus capital expenditures can result in litigation, unexpected public costs, or an increase in user rates. Contingencies to resolve such disputes should be added into the private costs of services contracts for the purpose of comparison between public and private contract operations.

In Lee County, Florida, which in 2000 chose not to renew its 1995 private water and sewer system operating contract, County engineers estimate that it will take more than \$8 million to restore under- and improperly maintained infrastructure to the condition it was in prior to the original contract. Lee County now operates and maintains its water and sewer systems under public management.

## Employment Issues

### ✓ **Employee Impacts and Programs to Manage Them**

**Issue:** Impacts on existing employees are often the most contentious issues surrounding privatization. While there are many ways of dealing with employee issues so as to minimize or cushion the effects of job changes or loss, these can be costly and their impact must be fully considered when comparing the costs of public and private operating alternatives.

**Discussion:** Typically, private operators achieve cost savings in large part by reducing personnel. Local governments often attempt to mitigate the impacts on existing employees by requiring that privatizers offer existing employees jobs and retraining assistance, implementing placement programs within government and outplacement services, offering early retirement packages, or requiring privatizers to adhere to existing wage and compensation packages. While these methods can be effective in minimizing the impacts of the privatization process on employees, many of these programs require planning and resources to implement, may burden existing retirement and benefits systems, and may reduce the actual benefits of contract operations. In addition, some actions, such as seniority-based job shifting within government, may result in increasing costs or inefficiencies in other departments. Finally, employees who are not satisfied with the job loss mitigation programs in place may bring legal action. When evaluating public and private operating options, local governments must be fully aware of the impacts of privatization on existing employees and the added costs of managing these employment issues. Contingencies for such impacts should be added into the private costs of services contracts for the purposes of comparison between public versus private contract operations.

### ✓ **Existing Union Contracts and Future Labor Negotiations**

**Issue:** If an operations and maintenance contract is being contemplated for a system with union labor, local governments must assess the contract's impact on both existing union contracts or labor agreements and union negotiations in the future.

**Discussion:** In cases where union labor is employed at a publicly operated facility, operating contracts must be closely coordinated with union leaders and must be in accord with existing union labor contracts. This coordination may raise the cost of implementing a contract and raise the potential for conflict during contract implementation. In addition, privatizing one government service can raise employee fears of job loss elsewhere and can have impacts on future labor negotiations in other government service areas.

### ✓ **Public Reaction to Employee Issues**

**Issue:** Even if employee issues are well planned internally, there may be negative public reaction to a privatization program that is viewed as harming existing workers. Local governments must ensure that they are prepared for public reaction to layoffs, as well as public concern about impacts on minority groups.

**Discussion:** In some cases, anti-privatization public reaction and political pressure can be quite strong, especially if alternatives will have substantial impacts on employment or are perceived as being especially burdensome to minority groups. These issues can delay substantially, and in some cases may prevent, successful implementation of privatization alternatives. Continuous public outreach efforts can help minimize some of this negative pressure. However, these outreach efforts involve additional costs that should be factored into the evaluation of public and private operating alternatives.

This issue came into sharp focus in New Orleans in late 2001 and early 2002. In response to a public outcry over a potential private contract to operate and maintain the City's water and wastewater systems, the New Orleans City Council called for an election on February 2, 2002, for voters to consider an amendment to the Home Rule Charter, which if adopted, would require voter approval of any decision to enter into a contract for privatization of Sewerage & Water Board services in excess of \$5 million. Citizens would be allowed to vote on contracts to privatize any management or administrative function of or any drainage, sewer, or water operations, systems, or services. More than 86 percent of New Orleans voters endorsed the amendment.

### ✓ **Impacts on Employee Productivity During Transition**

**Issue:** If the decision is made to pursue contract operations, there may be impacts on public employee productivity within the service to be privatized and in other government departments where employees may be concerned about long-term job security.

**Discussion:** Employee perceptions and uncertainty about the impacts of contract operations can have a significant impact on morale and productivity during the months leading up to contract implementation. This impact may require the establishment of employee information programs, hotlines, counseling programs, or other programs designed to reduce employee uncertainty and improve morale. These problems need to be addressed prior to exploring contract operations in detail, and the costs of these productivity losses, as well as any programs to minimize their effect, should be considered when evaluating public and private operating alternatives.

## Management Issues

### ✓ **Managing Conflicts of Interest and Public Perception Issues**

**Issue:** In many cases, the privatization process can become politically contentious. Real or perceived conflict of interest issues can hamper implementation or hurt credibility. Local governments should be aware of these issues and take steps to manage real and perceived conflicts where possible.

**Discussion:** Offers by private contract operators that involve up-front incentive payments to local governments have been criticized as biasing contractor selection away from quality service delivery, public health concerns, or environmental protection objectives. Local governments may want to avoid these types of arrangements and reduce the possibility for real or perceived conflicts of interest through transparent criteria for contractor selection that stress impacts on rates and quality service, and by conducting the selection process with full public participation. Often the public is invited to participate in contractor selection through citizens' advisory committees.

Fort Wayne City Utilities is the second largest municipally owned and operated water utility in Indiana. In November 1992, a private contract operator handed city council members an unsolicited proposal offering \$7 million in exchange for a 10-year operating contract. In response, the City Council asked its administration to solicit proposals for the operation of City Utilities. The administration countered with an ordinance to establish a City Utilities Citizens' Advisory

Committee. This seven-member committee was tasked with evaluating the opportunity for efficiencies within City Utilities, including privatization, and making recommendations to the City Council. The Committee recommended against privatization, opting instead to give City Utilities an opportunity to implement its strategic plan for improvements. The Committee also recommended establishing benchmarks and periodic evaluations of progress against those benchmarks.

Other types of conflicts also are possible. In mid-2001, three former executives of the firm holding the private operations contract for sewer services in the city were indicted for allegedly giving a \$70,000 bribe to a member of the New Orleans Water and Sewerage Board, who in return recommended renewing the firm's contract for another five years. The private operating company pleaded guilty and paid a \$3 million fine.

### ✓ **Evaluating Effects on Information Confidentiality**

**Issue:** In instances where private contractors manage the industrial pretreatment program as part of an operating contract, they may have access to information that could pose potential conflicts of interest. Similarly, where private operating companies manage publicly owned water utilities, they may have access to confidential records of large industrial users, which these same companies might approach to offer industrial water and/or wastewater operating contracts.

**Discussion:** Private firms that manage the industrial pretreatment program as part of an operating contract may have information on discharges from facilities owned by competitors or by corporate affiliates. This ability to review industrial discharge data may create real or perceived conflicts of interest that could affect public perceptions of program objectivity and effectiveness. It may appear that contractors could direct enforcement attention toward competing firms and away from corporate affiliates. In addition, many private contract operators have both municipal and industrial contracts. Private operators of a large wastewater facility with many industrial dischargers could be perceived to have proprietary information on potential industrial clients. Similarly, private water operators could be perceived to have proprietary information on water use for many potential industrial clients in the same area.

### ✓ **Loss of Connectivity and Cooperation Within and Across Governments**

**Issue:** Contract operations may have the potential to disrupt communication between government departments and between adjoining governments. In addition, cooperative environmental efforts that have developed between local governments and state and federal environmental agencies may be interrupted.

**Discussion:** Public water and wastewater departments often develop strong working relationships with other government departments (e.g., public works), with their counterparts in adjoining jurisdictions in the same watershed, and with state and federal environmental regulators. These relationships promote cooperative problem solving, efficient sharing of resources, and cooperative efforts to build a regulatory framework protective of public health and the environment. Where contract operations disrupt these relationships, the efficiency of general government may decline and citizens may lose access to certain services. This can impose "hidden" costs on consumers and governments alike.

### ✓ **Monitoring, Reporting, and Performance Evaluation Systems**

**Issue:** Continuous monitoring, maintenance record keeping, reporting, and performance evaluation systems often are critical to successful operating contracts. Planning for these programs and their associated costs should be assessed when exploring alternative public and private operating options.

**Discussion:** To avoid contract and payment disputes once service begins, it is critical to establish and agree ahead of time on a comprehensive range of performance measures, reporting requirements, acceptable levels (targets and benchmarks) of performance, and remedial actions to solve non- or under-performance. The resources required for these programs need to be included in an assessment of the costs of contract services.

## Statutory and Regulatory Issues

### ✓ **Considering State Legal Requirements Governing Privatization**

**Issue:** States differ in their legal requirements governing the evaluation, selection, and implementation of utility service contracts. These legal requirements can affect the costs and schedule for service contract implementation and should be fully understood during evaluations of public and private service options.

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**Discussion:** State laws may serve to promote or constrain service contracts. They also may prescribe actions required of both the public and private sectors before contracts can be implemented. Some states specify competitive bidding procedures and many have specific requirements for public hearings and notification. For example, Kentucky requires that political subdivisions publish a notice that shall “set forth a brief summary of the privatization contract provisions, and set a time and place for a public hearing to be conducted by the executive authority of the political subdivision. The notice shall be published each week for a period of (2) weeks...” State law differs with respect to the involvement of state public service commissions in service contracts. California law stipulates that “Subsequent to signing a contingent franchise, license, or service agreement with a local agency, a privatizer shall apply to the [California Public Utilities] commission for a determination that the proposed privatization project is not a public utility... and is therefore exempt from common regulation.” Other states, such as Texas, allow cities to exempt privatization contracts from utility commission oversight.

Inadequate attention to state laws can delay the implementation of privatization, result in legal disputes, and cause local governments to overlook the costs of contract operations when evaluating public and private options.

### ✓ **Effects of PUC Regulation**

**Issue:** Public Utility Commission (PUC) scrutiny of contract operations in the water and wastewater sectors has begun. Traditionally, PUCs paid little attention to private operators of publicly owned drinking water and wastewater utilities unless the facility was regulated under public ownership prior to the service contract. But PUCs are becoming increasingly aware of private contract operations and their potential to create conditions that, in their view, should be regulated. PUC regulation of service contracts could increase private costs.

**Discussion:** PUC scrutiny of privatization is generally limited to changes in ownership (asset sales) and has not yet focused significantly on private contract operations. Yet, PUCs are becoming increasingly aware of public-private arrangements, including contract operations, that create conditions conducive to economic regulation or that are structured deliberately to circumvent the regulatory process. In 1995, the National Regulatory Research Institute (NRRI) reviewed the positions of PUCs in 15 states and concluded that PUCs have the general authority to review service contracts for management prudence, financial terms, and ratemaking.<sup>2</sup> NRRI concluded further that state PUC interest in evaluating service contracts varies significantly from state to state. PUC intervention can affect both contracting costs and schedules.

### ✓ **Potential Liability Impacts of Contract Operation**

**Issue:** Many public entities enjoy immunities from tort liability that do not accrue to private corporations performing the same functions. The lack of immunity may increase the costs and risks borne by a private operator. These costs are generally passed on to customers in rate increases or passed back to the municipal owner of the facility as reimbursable costs.

**Discussion:** Most municipal drinking water and wastewater utilities are self-insured, with costs subsumed within a general liability insurance program that must be in place regardless of who is operating a publicly owned facility. Private operators, on the other hand, must pay for liability insurance and generally seek to recover these costs from the enterprise incurring the requirement for insurance. Where they have the latitude to do so, private contract operators will seek to recover insurance costs directly from customers as part of rates and/or charges. Alternatively, these costs will simply increase private bids for the contract to operate a facility.

In Charlotte, North Carolina, for example, potential private operators who bid for the contract to operate two city wastewater treatment facilities asserted that the public bid was lower than all private bids because of the cost of private insurance. Some argued further that the cost of private insurance should be added to the public bid to level the playing field. Most public risk managers would disagree with this logic, since the city, which would still own the wastewater facilities, would retain at least some form of liability and consequently, would rely on its self-insurance, even if the facility were privately operated.

### ✓ **Future SDWA and NPDES Permit Arrangements**

**Issue:** Under private contract operations, one question is: Who assumes responsibility for meeting SDWA requirements and/or conditions of the wastewater permit for the facility?

**Discussion:** In some circumstances, the private operator will offer to assume all regulatory risk of meeting requirements, but will not actually become the regulated entity. In other instances, private operators will request that the public owner assume a portion of this risk, especially if the private operator does not have full control over portions of the system necessary to guarantee compliance. If, for example, a private operator cannot possibly control the quality or quantity of influent, it will be justifiably reluctant to assume all risk for meeting drinking water or final effluent quality requirements. No private operator will assume any risks associated with changes in environmental or public health regulations. Any increase in the cost of contracted services associated with such changes will be the responsibility of the municipality.

Depending on local circumstances, therefore, contracting for management of a water or wastewater treatment plant will not necessarily relieve a public owner of regulatory responsibilities under either the Safe Drinking Water Act or Clean Water Act.

### ✓ **Impacts on Municipal/Industrial Pretreatment Program**

**Issue:** Under the Municipal/Industrial Pretreatment Program (MIPP), public entities cannot delegate their enforcement authority to private entities. Thus, public agencies must consider where responsibilities for the MIPP will be housed before contracting for private operations of a treatment facility. In addition, public agencies must establish mechanisms to coordinate with the private operator to ensure the sustainability of this local regulatory program.

**Discussion:** The MIPP is intended to monitor and control industries that discharge to wastewater treatment plants. The program is intended to ensure that industrial dischargers treat hazardous pollutants prior to discharge into the wastewater collection system.

In the majority of states, the MIPP is delegated to public wastewater utilities under the Clean Water Act. Prior to delegation, pretreatment programs must meet funding, personnel, legal, and

procedural criteria sufficient to ensure that enforcement responsibilities can be carried out. Even if a municipal government no longer runs the treatment works, it must retain authority for enforcement under the MIPP (conceivably, some technical functions of a local pretreatment program could be contracted out to a private vendor). Separating private operation and maintenance of the treatment plant from public administration and enforcement of the pretreatment program could be problematic.

One potential problem is loss of control over key parts of the program needed to support enforcement, i.e., monitoring, sampling, and reporting data required in order to enter into enforcement actions against Significant Industrial Users (SIUs) that may be violating pretreatment standards. Conducting headworks analyses to establish local limits also may be particularly problematic.

Local governments need to ensure that their service agreement specifies ways of coordinating with the private partner on the MIPP.

# IV. Asset Sales

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## The Checklist

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# Overview

Asset sales involve the private purchase of water or wastewater utility assets, thereby transferring ownership and operating responsibility to a private entity. The private entity assumes the city's franchise and operating certificates, and takes control (to differing degrees depending on the accompanying service agreement) over future planning, construction, and operations.

Many consider public health and environmental issues to be core responsibilities of the public sector. Asset sales generally require giving up direct control over these areas. Hence, the sale of any water or wastewater utility entails substantial financial, legal, managerial, and regulatory challenges, the resolution of which can have significant bearing on quality and cost of service, as well as health and environmental protection. The full range of these factors must be considered in order to make an even-handed comparison of asset sale versus contract management, public operation, and other alternatives.

Since passage of the Tax Reform Act of 1986, which eliminated several incentives for private ownership of treatment facilities, EPA has approved only ten sales or long-term leases (both of which require EPA approval if the facility had previously received a federal grant) of wastewater assets to private companies: Franklin, Ohio; Cranston, Rhode Island; Fairbanks, Alaska; Danbury, Connecticut; Wilmington, Delaware; Arvin, California; Woonsocket, Rhode Island; Scranton, Pennsylvania; and Naugatuck, Connecticut.

Although other asset sales have been considered, political, legal, and regulatory concerns have led communities to explore other options for public-private partnerships. The city of Wilmington, Delaware, decided on a long-term lease rather than an asset sale, for example, due to concerns expressed by New Castle County, a jurisdiction served by the Wilmington facility, regarding the allocation of sale proceeds.

Because there have been so few asset sales, in a sense each one is a pioneering case study. Many of the legal, regulatory, and financial concerns associated with asset sales have not been determined and have to be worked out on a case-by-case basis. The issues and remedies presented here are, therefore, somewhat speculative, and the cost and time required to resolve these issues must be factored into the costs of any asset sale. In addition, while they are not necessarily repeated below, many of the issues discussed in the previous section on contracting out – especially those that address employee issues – also may be relevant in whole or in part to asset sales.

## Costs of Service

### ✓ Public Costs Resulting from an Asset Sale

**Issue:** Although the sale of drinking water or wastewater facility assets to a private entity transfers many costs previously borne by the public sector to the private owners, not all costs can be avoided. In addition, some new public costs are imposed by oversight and public finance requirements (see the Finance Issues checklist). An asset sale also may impose significant transaction costs during implementation.

**Discussion:** The sale of a drinking water or wastewater utility involves complex legal, financial, and regulatory considerations, and can generate substantial transaction costs. Local governments may need to retain a range of outside expert services, including a technical advisor to assemble project specifications and assist in procurement and solicitation processes, a financial advisor to recommend and evaluate financial options, and a legal counsel to prepare and assist in negotiating a purchase and service agreement. Public involvement processes, such as public hearings, also may be required under state or local law before the transaction can occur.

After the transaction occurs, the public sector will continue to incur costs to monitor drinking water quality, environmental, financial, and other performance indicators of the private entity. Monitoring activities include inspections, compliance management, and development and verification of performance standards. These costs may include enforcement and other costs for regulatory programs, such as the Municipal/Industrial Pretreatment Program (MIPP), that remain under the jurisdiction of the local government even after the asset sale.

Finally, as in the case of Franklin, Ohio, the public sector may retain ownership and responsibility over the sewage collection system or water distribution system when the private owner purchases the treatment facility. As a result, the public sector is still responsible for the costs of maintenance and rehabilitation of these fixed assets. Moreover, separation of drinking water treatment assets from distribution systems creates a significant potential public health risk, as described in the previous section on contract operations.

All of these costs and risks should be considered in the privatization feasibility study in order to evaluate whether an asset sale will result in lower net costs for local government.

### ✓ **Considering How Utility Rates Will Be Determined**

**Issue:** When an asset sale occurs, the method for setting utility rates must be determined. Rates are generally set through agreements between the purchaser and the seller, or by existing state law regulating private utilities. In order to evaluate the potential impact of an asset sale on rates, it is important to consider how utility rates will be determined and what ability the local government will have to control the degree to which rates increase.

**Discussion:** After an asset sale, a former public facility may be subject to Public Utility Commission (PUC) jurisdiction. These commissions regulate investor-owned utilities in each state. Most PUCs require that utilities use the rate base system, which provides for an allowable rate of return based on the depreciated value of the assets owned by the utility. Typically, the PUC process is outside of the local government's jurisdiction. If this option is selected, therefore, local government can lose the ability to affect ratemaking. This may result in a further loss of control over economic development efforts (these issues are further discussed in the Management Issues checklist).

Some privatization proponents regard rate regulation by PUCs as a positive aspect of privatization. For example, the California-American Water Company argued that privatization would provide the continuous oversight of all rates and operations by the California PUC and Division of Ratepayers Advocates, as opposed to the totally autonomous functions of the Santa Margarita Water District.<sup>3</sup> However, some municipalities believe that PUC regulation adds to already high wastewater rates. For example, a Washington Court House, Ohio, official complained about "the astronomical impact of being regulated by the Ohio Public Utilities Commission."<sup>4</sup>

Alternatively, in some states an exemption can be sought from PUC regulation and the rate-making process can be defined in a service agreement between the local government and the private entity. The agreement can specify which kinds of costs can be included in rates, such as debt service, O&M costs, and administrative and other charges. Such agreements often include escalation charges tied to labor, power, and material costs.

The agreement also can begin with a base year rate, and specify subsequent allowable escalation factors. For example, the city of Franklin, Ohio, specified a base year rate in its service agreement with Wheelabrator, Inc., the private purchaser. The agreement provides that the base year rate will increase only by the urban Consumer Price Index, or due to expansions of plant or circumstances beyond the control of either of the parties (e.g., changes to regulations or treatment requirements).<sup>5</sup> The service agreement with Wheelabrator also contained a provision for recalculating the rate when the volume of flow increased or decreased by more than 10 percent of the system-wide volume or flow.

Although many privatization proponents cite “guaranteed rates” as a positive aspect of asset sales, in practice many agreements contain escalation factors that can result in significant rate increases. Automatic cost adjustment clauses and pass-throughs in privatization agreements can undermine economic incentives for privatizers to reduce costs.<sup>6</sup> These clauses must be carefully reviewed when analyzing the rate impacts of asset sales.

## ✓ **Impacts of Asset Sales on Rates and Charges**

**Issue:** An even-handed comparison of asset sales versus contract management, public operation, or other alternatives requires a full understanding of the impact of asset sales on future rates. Depending on how rates are determined, any additional costs experienced after an asset sale may result in short- or long-term rate increases for utility customers.

**Discussion:** After an asset sale, the private owner will be subject to many of the same administrative and operating cost categories already faced by the public owner. (Note: operational and administrative cost differences are discussed in the Contract Operations section of the checklist). The sale of an asset to a private firm, however, can create other additional costs and savings. If the effect of these costs and savings are not fully accounted for, long- and short-term impacts on rates cannot be estimated accurately. Some of these costs will not be apparent in the initial transaction, but will appear over time. As a result, a fair evaluation should take both a “snapshot” view of the initial transaction and model the impact on rates over a period of years.

Factors to be considered when evaluating the potential impacts of costs on rates include:

*Taxes.* Private owners will be subject to taxes from which a public entity is exempt. Potential tax liabilities include corporate income taxes, property taxes (unless a specific exemption is obtained), and possibly sales taxes on utility rates. Even if some or all of these taxes accrue to the local government that sold the asset, the cost of additional taxes will most likely be borne by ratepayers. This issue is particularly important for water and wastewater treatment facilities that cross multiple jurisdictions. For example, local property taxes may be paid to the city in which the facility is located, but ratepayers in several counties will have to pay higher rates in order to recover these funds.

*Rate of Return.* Private investors will expect some return on their investment in a privatized facility. The return on investment expected by the private owner (and/or its investors) will be recovered through rates. Depending on the ratemaking methods used, in the absence of contractual stipulations to the contrary, any surpluses produced due to efficiencies in operation may be distributed to the investors, rather than returned to ratepayers.

*Operating Losses.* In some cases, the initial purchase offer made by a prospective private purchaser presumes that the company will run the facility at a loss for several years before raising user rates. Ultimately, the private purchaser may seek to recoup a return on this investment through some combination of rates or charges.

These and other costs unique to the private sector must be considered when evaluating the impact of an asset sale on rates.

## **Financial Issues**

### ✓ **Considering Impacts on Tax-Exempt Status of Existing Bonds**

**Issue:** Due to restrictions in the 1986 Tax Act, when a facility financed with tax-exempt bonds is sold to a private user, the Internal Revenue Service (IRS) may rule that the bonds have become taxable. When considering an asset sale, the potential impact on outstanding tax-exempt bonds must be carefully examined, and steps may have to be taken by the local government to prevent the loss of the bond’s tax-exempt status.

**Discussion:** In an asset sale, an issuer can avoid making tax-exempt bonds subject to tax by either calling the bonds (if callable) or by making use of Revenue Procedure 97-13, which enables issuers to preserve the tax-exempt status of outstanding bonds used to finance assets transferring from public to private ownership only if certain remedial procedures are followed. In general, tax-exempt status of such bonds is preserved if the proceeds received as a result of an asset sale are:

- Used to redeem outstanding bonds within 90 days;
- Used to establish a defeasance escrow account (whose yield is limited to the yield of the bonds to be defeased) sufficient to redeem bonds at the next call date; or
- Reinvested within two years in “governmental purpose” infrastructure, as defined by the IRS to mean other public infrastructure that would qualify for tax-exempt financing.

A few other restrictions apply: the issuer cannot have had an expectation that the assets would be transferring from public to private ownership at the original date of issuance; the assets in question must be sold at “fair market value”; and the first call date of the bonds in question cannot be more than 10 years after the date of issue. Under the IRS Revenue Procedure 97-13, any new tax-exempt bonds issued to finance the asset sale would be considered “private activity bonds” and therefore, subject to annual state volume caps (discussed in more detail in a subsequent section). Most recent sales and long-term leases of wastewater and water assets have included defeasance of outstanding tax-exempt bonds.

Although it is possible to protect the tax-exempt status of existing bonds through defeasance or reinvestment in public facilities, the process may involve costs for legal and financial consulting services to ensure that regulations are followed. The time and expense involved must be factored into the costs of the asset sale process.

In addition, utilities that operate both water and wastewater facilities sometimes issue a single bond and allocate proceeds to both sides of their operation. Generally, the entire bond must be defeased upon sale of only water or only wastewater assets, which will require re-issuance of a smaller issue to refund the remaining portion of the original issue. Issuance costs can be significant.

### ✓ **Alternative Valuation Methodologies**

**Issue:** In an asset sale, the buyer and the seller must agree on an appropriate valuation methodology to set a fair purchase price for the assets. Proper valuation can significantly affect the cash payment received by governments and may affect user rates over the life of the system.

**Discussion:** Numerous methods exist for the valuation of water and wastewater assets, and each may generate dramatically different values. Several techniques for determining fair market value are described below.

- *Original Cost Less Depreciation or Net Book Value.* This approach was used in the Franklin, Ohio asset sale and is a standard in many purchases by PUC-regulated entities. Facility value is computed by calculating the original cost of the facility’s assets in service less accumulated depreciation. For example, a 12-year old plant that cost \$40 million to build initially would be valued at \$30.4 million, assuming 2 percent annual depreciation.
- *Discounted Cash Flow or Income.* This approach calculates utility value based on a discounted valuation of the facility’s expected future income or cash flow. This method assumes that an asset is worth “what it will earn.” Some analysts have found the income approach inappropriate for sales of publicly owned facilities since these facilities have a non-profit objective; thus, there is no historical information from which to judge profitability.
- *Replacement Cost Less Depreciation.* The cost approach calculates the current replacement cost for the facility and subtracts an appropriate depreciation amount to arrive at net value.

For example, a 12-year old plant that cost \$40 million to build initially might cost \$58.4 million to replace, given a construction cost multiplier of 1.46. With 2 percent annual depreciation, this plant would be valued at \$48.8 million.

- *Comparable Sales of Other Systems.* Valuation can also be based on comparable sales of other systems, although it may be difficult to find systems that have characteristics similar enough to use them as a basis for comparison.

In considering an asset sale, local governments must evaluate the advantages and limitations of valuation methodologies with regard to their particular circumstances. While governments benefit from the cash payments made by privatizers, the purchase price will ultimately be recouped through charges to the system's ratepayers. Tradeoffs between a high sale price and low user rates in the future must be explored, especially when there are questions about equitable uses of sale proceeds.

### ✓ **Grant Repayment Obligation Under Asset Sales**

**Issue:** Many wastewater utilities were originally built under the EPA's construction grants program (grants for water supply facilities have been significantly smaller and limited). Many also received supplementary state grants. While very few large water utilities have received federal grants, some smaller ones may very well have received at least modest federal grant funding. When federally grant-funded property is transferred to a private company, federal regulations require repayment of some or all of the grant funds previously supplied by the taxpayers. If repayment of some or all of the federal and state shares is required, the total cost of purchasing the asset can increase, and private buyers will recover the additional investment through rates. The impact of repayment requirements on the local government's proceeds from the transaction also must be evaluated.

**Discussion:** Presidential Executive Order 12803 requires that the state and local government involved in an asset sale shall first recoup in full the unadjusted dollar amount of their portion of dollar costs (including any transaction and fix-up costs they incur) associated with the infrastructure assets involved. Next, the federal government is to recoup "in full the amount of Federal grant awards associated with the infrastructure assets, less the applicable share of accumulated depreciation on such asset." Finally, the state and local governments are entitled to keep any remaining proceeds.

Executive Order 12803 requires only that the undepreciated portion of the grant be paid back to the federal government. The undepreciated portion of the grant is a function of the depreciation schedule used. Although EPA regulations define the useful life of a wastewater facility as 30 to 50 years, EPA guidance on repayment of the federal investment enables use of a 15-year depreciation schedule (as required by Executive Order 12803).

### ✓ **Ability to Finance New Investments Under Asset Sales**

**Issue:** Private facilities do not have access to the same low-cost sources of capital funding as public sector facilities. When evaluating the feasibility of an asset sale, the relative costs of capital, and its potential impacts on future rates and system expansion, must be considered.

**Discussion:** The Tax Reform Act of 1986 sharply limited the ability of privately owned water and wastewater facilities to issue tax-exempt bonds. These facilities may only issue so-called "private activity" bonds, which have an annual limitation in each state of \$50 per capita or \$150 million, whichever is greater. Many states already allocate the full amount of their allowable private activity cap to other public-purpose projects such as housing. If a private owner is unable to use tax-exempt private activity bonds, the cost of capital can increase significantly for a privatized facility.

In addition, a private facility will no longer be eligible for assistance from the federally funded Water Pollution Control State Revolving Fund (SRF) loan program. Any outstanding SRF loans will have to be repaid at the time of sale, which increases the amount of capital that a private partner will

need to provide. Private facilities also are ineligible for many state grant and loan programs. While technically, state drinking water SRFs are authorized to lend to private water utilities, many states have effectively prohibited such practices through subsequent legislation and administrative rules.

Assuming that private owners are unable to access capital at public rates, ratepayers will pay more for the same improvements than if they were served by a comparable public facility. This may inhibit the timely and economic replacement of aged, depleted, or obsolete assets, and delay capital expansion required to meet increased needs resulting from population growth or expansion of the industrial customer base. These factors must be considered in any evaluation of an asset sale.

## Risks to Service

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### ✓ Evaluating Purchasers' Financial Capability

**Issue:** If a private purchaser has financial difficulties, it may be unable to maintain an acceptable level of service after it purchases a facility, and, in extreme cases, curtail or cease operations entirely. In order to protect against potential service interruptions due to bankruptcy of the private facility, local governments should take steps to evaluate the financial condition and capabilities of prospective purchasers.

**Discussion:** The financial capability of prospective purchasers can be evaluated in several ways. First, if the purchase is being negotiated through a two-step RFP process, one element of the RFP can request sufficient financial information, such as balance sheets, Securities and Exchange Commission Form 10-Ks, audited financial statements, bank references, credit reports, and other information sufficient to evaluate a prospective purchaser's financial condition. For example, the RFP issued for the purchase of the Wilmington, Delaware wastewater treatment facility included criteria on the proposer's financial strength, asking "Has the Proposer or any of the key team member firms and/or management personnel ever declared bankruptcy? Are there any past projects in which the proposed team has failed to meet its financial obligations? What is the nature of pending and past litigation against the Proposer or other team members?"<sup>8</sup>

If the purchase is not being negotiated through an RFP process, the local government will need to investigate the financial capability of the prospective purchasers individually. In either case, the local government will need to gather sufficient information to determine whether financial default is likely. This may require additional time and costs for hiring the services of a financial consultant and/or conducting a due diligence investigation.

Even after such precautions, some financial performance risks cannot be eliminated. In May 1999, a subsidiary of the Enron Corporation paid \$439 million and was awarded the 30-year concession for the water and wastewater assets of two regions of Province of Buenos Aires, Argentina. Some observers claimed that since they were relatively new to the business and were aggressively seeking to get into the market, this private firm overpaid for these assets. Just about that time, it was spun off as a separate publicly traded company, in which Enron retained a strong equity position. In October 2000, the company announced plans to invest \$250 million to improve water and sewer infrastructure. In the fourth quarter 2000, the company took a substantial write-down in value (hundreds of millions of dollars) of these assets to recognize that their market value was substantially below the price originally paid. By October 2001, accusing the Provincial government of failing to comply with terms of the concession, the Enron subsidiary exercised its right to terminate and withdrew from its obligations to provide water and sewer services to Buenos Aires Province. The Province rejected the validity of this termination and the two parties were unable to agree to a settlement. In February 2002, the company filed a concurso (reorganization) proceeding under Argentine Debtor protection laws.

## ✓ **Reviewing Prospective Purchasers' Technical Capabilities**

**Issue:** Local governments must ensure that the purchaser of a facility has the technical qualifications to operate, maintain, and improve it in perpetuity. If a purchaser lacks the technical qualifications, it may be unable to maintain services at an acceptable level.

**Discussion:** In order to review a prospective purchaser's technical capabilities, local governments may consider whether the purchaser currently owns any facilities of a similar type and size, and the general type of previous work completed by the purchaser (and the assembled team, if applicable). Technical capabilities related to capital planning and the construction of improvements are particularly critical under an asset sale scenario. While this is not necessarily a problem for water utilities, because so few private wastewater facilities exist, it may be difficult to find a purchaser able to demonstrate such experience. In addition to technical capabilities, the experience of the company's managerial staff with similar facilities must be considered.

## Statutory and Regulatory Issues

### ✓ **Confirming that the Seller has Legal Authority to Sell**

**Issue:** Some governments are permitted to sell an asset only if it is determined to be excess or non-performing. Other governments may be restricted from selling assets that cross multiple jurisdictions. In either case, complications regarding the legal ability to sell the asset can delay the sale process and increase transaction costs. Any political difficulties or expense involved must be added to the costs of the asset sale.

**Discussion:** In some states or local jurisdictions, governments must obtain certification that assets are unable to produce adequate income or are "excess" before divestiture is permitted. Where this is the case, local governments may have to prepare such a demonstration before they can begin the rest of the asset sale process. Also, some state laws may require a public auction process, with the facility going to the highest bidder. This process may not allow for other factors important to the provision of water or wastewater treatment services, including the financial and technical capabilities of the purchaser, the company's compliance history, and experience with owning and operating other, similar facilities.

Before proceeding with an asset sale, local governments will need to explore the legal requirements governing divestitures that could affect service quality or delay implementation.

### ✓ **Is a Private Buyer Subject to PUC Regulation**

**Issue:** Investor-owned systems are often regulated by state Public Utility Commissions (PUCs), which control ratemaking, asset sales, and other utility activities. Depending on state law, an ownership transfer may require a certification of convenience and necessity from the state's PUC. The new entity also may be subject to regulation by a state PUC, rather than by an agreement with a local oversight body. This may result in a loss of regulatory control for the local government that sells the asset.

**Discussion:** For different types of water and/or wastewater utilities, PUCs may regulate service territory boundaries, issuance of debt, mergers, acquisitions, other ownership changes, and other matters. The degree of PUC control may reach into areas that that local government regards as local matters. For example, if a former public utility becomes subject to PUC regulation, the local government may no longer be able to play an oversight role on revenue debt issuance for projects that its residents will repay with rates.

In some cases, local governments can take steps to exempt a sold asset from PUC regulation. Generally, in order to avoid PUC regulation, a local government must demonstrate that its service agreement gives it the regulatory oversight and enforcement power to protect local consumers against monopoly abuse.

In California, for example, in order to win exemption from PUC regulation, a local agency that seeks to sell an asset to a private entity must demonstrate that it has the exclusive authority to establish rates, approve design and construction of the project, approve changes in ownership, and impose fines and penalties for non-compliance with any provision of the privatization agreement. These requirements may need to be incorporated into the service agreement between the privatizer and the local government.

In order to evaluate the impact of asset sale on local control of water or wastewater operations, local governments need to consider whether PUC oversight will be triggered, or what steps must be taken to avoid such oversight.

### ✓ **Potential Liability Impacts of Asset Sales**

**Issue:** Many public entities enjoy immunities from tort liability that do not accrue to private corporations performing the same functions. The lack of immunity may increase the costs and risks borne by a private purchaser. When considering sale of a water or wastewater facility, local governments need to consider the potential impact of lawsuits on the financial stability of operations.

**Discussion:** If a lawsuit were pursued against a private entity, it could have the potential to endanger the financial stability of the facility's operations. For example, a private facility might be sued for personal injury or property damage resulting from operations, or failure to comply with regulatory and permit requirements.

Prospective purchasers may have to seek increased rates in order to create a reserve fund to guard against potential lawsuits. Alternatively, the private purchaser may have to secure private environmental and regulatory liability insurance, if available. These costs may be passed on to the ratepayers.

In either case, the change in ownership may expose water or wastewater treatment operations to liabilities that would not exist under the former ownership structure. When evaluating an asset sale, this additional financial liability must be considered.

### ✓ **Considering Future SDWA and NPDES Permit Arrangements**

**Issue:** Local governments must consider how permits issued under both the Safe Drinking Water Act and Clean Water Act will be managed in the event of an asset sale. The Clean Water Act, for example, establishes different standards for publicly owned treatment plants than for private treatment facilities.

**Discussion:** EPA has warned that a privately owned wastewater utility could be subject to different permit limits than a publicly owned facility. For example, a privatization evaluation of a Laramie, Wyoming treatment facility found that, "As a POTW [publicly owned treatment work], the City's NPDES permit includes effluent-based limits that can be met with relatively simple technology. Technology presently exists to treat wastewater to a much higher quality. Therefore, a privatized wastewater utility could conceivably be subjected to technology-based limits requiring facilities much more costly to construct and operate than the facilities presently proposed to meet effluent-based permit limits." The report cited this factor as a reason to retain the City as co-permittee on the NPDES permit. Although this interpretation seems unlikely to stand up in court, it may be an issue that warrants further exploration.

It is more likely to be the case that government will remain a co-permittee with a private purchaser because part of the regulatory program will stay with government. In the Franklin, Ohio asset sale as well as the others listed at the beginning of this section, the privatizer and the municipality served as co-permittees. The privatizer was responsible for the quality of the effluent and was required to undertake all monitoring and record-keeping required by the permit. The municipality was responsible for the pretreatment program and other aspects related to the influent part of the permit.

Environmental regulations are identical for public and private water utilities, so these issues will not be major problems for sales of water assets from the public to private sectors.

### ✓ **Continuation of RCRA Domestic Sewage Exclusion**

**Issue:** The federal Resource Conservation and Recovery Act (RCRA) contains an explicit exemption (the Domestic Sewage Exclusion) that allows publicly owned treatment works to treat hazardous waste without becoming subject to expensive RCRA oversight and reporting requirements. As a private entity, a treatment facility could lose the RCRA wastewater utility exemption and become subject to RCRA requirements.

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**Discussion:** EPA has warned that if wastewater assets transfer from public to private ownership, they will no longer meet the definition of a “publicly owned treatment works” under the Clean Water Act and will lose their exclusion from regulation under the Resources Conservation and Recovery Act (RCRA). Privately owned treatment plants may have to apply for a separate RCRA permit if they manage or store regulated quantities of hazardous waste. In Franklin, Ohio, the city negotiated a specific agreement with EPA exempting the new private owner from RCRA. But not every asset sale since then has enjoyed such an exemption, since EPA has indicated that decisions on this issue are made on a case-by-case basis.<sup>10</sup> Before implementing an asset sale, local governments should ensure that this exemption can be continued by negotiating directly with EPA. If EPA elects not to grant the exemption, the costs of operation for the private owner could increase.

### ✓ **Impacts on the Municipal/Industrial Pretreatment Program**

**Issue:** The Municipal/Industrial Pretreatment Program (MLPP) is intended to monitor and control industries that discharge to wastewater treatment plants. The program is intended to ensure that industrial dischargers treat hazardous pollutants before discharging them into the wastewater collection system. Before an asset sale occurs, governments need to consider where responsibilities for the MIPP will be housed, and how enforcement will be coordinated with the privatizer (see Section III on Contract Operations).

**Discussion:** Pretreatment programs must meet funding, personnel, legal, and procedural criteria sufficient to ensure that POTW enforcement responsibilities can be carried out. If a municipal government is no longer in charge of the treatment works, it may not have access to the monitoring, sampling, and reporting data required in order to enter into enforcement actions against Significant Industrial Users (SIUs) that may be violating pretreatment standards. For example, conducting headworks analysis to establish local limits may be particularly problematic.

Local governments need to ensure that their service agreement specifies ways of coordinating with the private partner on the MIPP.

## Management Issues

### ✓ **Maintaining Oversight of Day-to-Day Services and Operations**

**Issue:** If an asset sale occurs, the public entity will lose control over day-to-day service and operations. Although a service agreement can specify performance standards, in the event of poor performance, regaining control may not be possible. Before an asset sale, the possibility of poor performance – and appropriate remedies – must be considered.

**Discussion:** If a treatment facility is publicly owned, utility customers can seek redress for grievances from local elected officials. After an asset sale, public sector controls over day-to-day services and operations may be inadequate to ensure quality service, particularly in areas such as billing, customer relations, and emergency response.

If a private owner fails to deliver adequate levels of service, the local government may lack the ability to take over and provide the service itself. For example, in Mexico, Missouri, city officials attempted to take over a privately operated water system serving their community. The state Supreme Court prevented the city from using its power of eminent domain to acquire the public utility.<sup>11</sup> Service agreements could potentially contain a “buyback” option, permitting the local government to repurchase the facility under specified conditions. The form and terms of this buyback option are another issue that must be reviewed before an asset sale occurs.

### ✓ **Impact of Asset Sales on Economic Growth and Development**

**Issue:** Traditionally, utilities have played a major role in the municipal annexation strategies by which communities expand their tax base. Government officials sometimes use their water and wastewater systems as a means of controlling and directing economic growth and development. Local governments need to consider how the transfer of ownership to a private entity would affect this role.

**Discussion:** Privately owned water and wastewater facilities lack the taxation and eminent domain powers that permit cities to use expansion of their services as means of directing economic growth and development. Although the public sector retains the powers of eminent domain after an asset sale, local governments may not be able to require that the private facility expand its capacity to meet with new demand arising from expansion of the service area due to development. If an asset sale occurs, local governments need to consider where these functions will now be housed, and how they can coordinate with the new facility owner to arrange system expansion.

In fact, the City of Marysville, Ohio, repurchased the division of the private Ohio Water Service Company that serviced the city, partially to gain control of the system because of its importance to local annexation strategies.<sup>12</sup>

In considering an asset sale, the potential impact on local growth and development strategies must be evaluated.

### ✓ **Considering Impacts on Service Coordination**

**Issue:** Under at least one asset sale scenario, the public sector will maintain ownership of distribution and/or collection systems and the private partner will take over the ownership and operation of the treatment facility. The separation of these functions may result in a lack of coordination between facility capacity and the pipe networks. Coordination of these services must be considered before an asset sale is negotiated.

**Discussion:** If the distribution/collection systems and their corresponding treatment facilities are owned by different parties, the ability to plan for and finance needed improvements and/or expansions may be compromised. For example, if a city owned an aging pipe network that began to experience

increased levels of inflow and infiltration, the private sector treatment facility might not be able to expand to meet demand or treat the additional flows. If a water distribution network experienced increased water losses, it is not clear that its treatment facility would expand production to assure adequate system pressure for fire fighting.

In addition, if a city wanted to expand its distribution or collection system to an outlying area, the private treatment facility may not be willing or able to expand plant capacity accordingly. In Atlantic City, New Jersey, for example, the collection system is owned by a private entity. When gaming greatly expanded the demand on the city's wastewater collection system, the private owner declined to make the investments in the system to meet the new needs.

Some provision for this can be made in the service agreement. The Franklin, Ohio service agreement, for example, required the privatizer to provide up-front funds for plant expansion, although the local governments are to determine the size and timing of the expansion. The privatizer would ultimately be reimbursed by the cities for the cost of the expansion. Under such an arrangement, however, the privatizer may not be able or willing to raise capital at the appropriate time to meet community needs.

Provisions for service coordination and expansion of the water and wastewater treatment and conveyance systems must be considered in advance of any asset sale.

### ✓ **Recognizing Multi-Jurisdictional Issues**

**Issue:** The sale of a facility that provides water or wastewater services to more than one jurisdiction can impose political and contractual problems, particularly if all jurisdictions do not agree to the asset sale, or receive a portion of the sale proceeds. The existence of multiple jurisdictions can also complicate the development of an RFP or sale process, as well as a service agreement. When considering the sale of a facility that serves multiple jurisdictions, local governments need to be aware of any potential conflicts that may arise between the jurisdiction over the decision to sell, the method of sale, the distribution of proceeds, and the terms of the service agreement.

**Discussion:** Every issue encountered by a single jurisdiction that considers an asset sale becomes more difficult when considered across multiple jurisdictions. The City of Wilmington, Delaware, for example, made an unsuccessful attempt to sell the treatment facility that services both the city and New Castle County. New Castle County opposed the asset sale because it contended that the intergovernmental agreement that governs the provision of wastewater services between the city and the county could not be assumed by the private owner.<sup>13</sup>

After the District of Columbia Water and Sewer Authority (WASA) was created in 1996, the Authority commissioned a study of privatization options (completed in 1999), including sale of the Blue Plains Advanced Wastewater Treatment Plant to the private sector. A full asset sale would have been difficult to implement because the DC government retains ownership of the facility. Additionally, approximately 55 percent of the flow treated at Blue Plains is generated by Maryland and Virginia jurisdictions, which pay a portion of facility capital costs based on allocated capacity and operating costs based on proportional flow to the plant. Division of any sales proceeds would likely be a complicated and contentious matter. In evaluating privatization options, WASA identified a competitive “gap” between its operations costs and those of the private sector, and its Board endorsed the implementation of a multi-year internal improvement plan to close the “gap” rather than pursuing asset sale or contract operation.

When multiple jurisdictions are involved, the cost of additional negotiations, public involvement, and legal counsel must be factored into the cost of the asset sale.

## ✓ **Impact on Services to Disadvantaged Clients and Other Public Service Programs**

**Issue:** As for-profit entities, private organizations may not have the same incentive as a public organization to provide services for disadvantaged customers or to participate in public service programs. The potential impact of an asset sale on these customers must also be considered.

**Discussion:** Many water and wastewater facilities have special programs that assist disadvantaged customers with reduced user charges. If an asset sale occurs, these programs may be discontinued or changed unless specifically allowed for in the service agreement.

Even if specifically allowed for, there may be no incentive for the private partner to actively market and/or promote these programs among customers. Local governments may need to take over the program, if necessary, at additional costs, or take steps to stipulate the continuation of such programs in perpetuity.

In addition, many utilities participate in watershed protection or environmental restoration programs, such as the National Estuary Program or the Clean Lakes Program. Although private organizations also participate in these programs, drinking water and wastewater utilities have historically taken leadership roles in water quality initiatives. A change in ownership might result in a change in this role in a given watershed.

## **Employment Issues**

Many of the employment issues relevant to service contracts also are relevant to asset sales. The reader is referred to Section III for additional details.

### ✓ **Considering Potential Strike Risks**

**Issue:** If employees gain the right to strike under the new ownership structure, the occurrence of a strike may cause a service interruption that would present an unacceptable risk to environmental and public health. Local governments need to consider whether it is possible to control this risk, which will vary from state to state, or whether measures can be taken to reduce either the risk or the potential consequences of a service interruption caused by a strike.

**Discussion:** Due to concerns over public health and safety, many public employees do not have the right to strike. In contrast, most private sector unions retain the right to strike under certain circumstances. To guard against the possibility of a strike, local governments may need to have some redundant capacity to take over some or all of the functions of the privatized facility in the event of a labor dispute. Alternatively, the private corporation might bargain for a no-strike clause in a union labor agreement in exchange for additional salary.<sup>14</sup> The public health, public safety, and environmental implications of strikes must be explored during the evaluation of asset sale options.

# Endnotes

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City of Phoenix Water Services Department, AZ  
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City of Modesto, CA  
City of Oxnard, CA  
City of Palo Alto Regional Water Quality Control Plant, CA  
City of Riverside Water Reclamation Plant, CA  
City of Sacramento, CA  
City of San Diego Technical Services Division, CA  
City of San Jose Environmental Services Department, CA  
City of Santa Barbara, CA  
City of Santa Cruz Wastewater Treatment Facility, CA  
City of Stockton Department of Municipal Utilities, CA  
City of Sunnyvale Water Pollution Control Plant, CA  
City of Vacaville, CA  
Delta Diablo Sanitation District, CA  
East Bay Municipal Utility District, CA  
Encina Wastewater Authority, CA  
Fairfield-Suisun Sewer District, CA  
Inland Empire Utilities Agency, CA  
Orange County Sanitation District, CA  
Sacramento Regional County Sanitation District, CA  
San Bernardino Municipal Water Department, CA  
Sanitation Districts of Los Angeles County Technical Services Department, CA  
South Bayside System Authority, CA  
South Orange County Wastewater Authority, CA  
The City of Thousand Oaks Public Works Department, CA  
Union Sanitary District, CA  
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West County Wastewater District, CA  
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City of Greeley Water and Sewer Department, CO  
City of Pueblo – Wastewater Department, CO  
Colorado Springs Utilities Environmental Services, CO  
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Metro Wastewater Reclamation District, CO  
The Metropolitan District (Hartford County), CT  
DC Water & Sewer Authority, DC  
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City of Altamonte Springs Public Works, FL  
City of Boca Raton Utility Services Department, FL  
City of Clearwater, FL  
City of Hollywood, FL  
City of Kissimmee Department of Water Resources, FL  
City of Orlando, FL  
City of St. Petersburg, FL  
City of Tampa Howard F. Curren Advanced WWTP, FL  
Collier County Public Utilities, FL  
Escambia County Utilities Authority, FL  
Gainesville Regional Utilities Water & Wastewater Systems, FL  
Hillsborough County Water Department, FL

JEA (an Electric, Water & Sewer Regional Utility), FL  
 Miami-Dade Water and Sewer Department, FL  
 Orange County Utilities, FL  
 Sarasota County Environmental Services, FL  
 South Central Regional Wastewater Treatment Board, FL  
 City of Atlanta Department of Public Works, GA  
 City of Augusta Utilities Department, GA  
 City of Cumming, GA  
 Columbus Water Works, GA  
 Gwinnett County Department of Public Utilities, GA  
 Macon Water Authority, GA  
 Peachtree City Water & Sewerage Authority, GA  
 City and County of Honolulu Department of Environmental Services, HI  
 Public Works, Wastewater Reclamation Division, HI  
 Cedar Rapids Water Pollution Control Facilities, IA  
 City of Ames Water & Pollution Control Department, IA  
 City of Des Moines, IA  
 City of Boise, ID  
 City of Pocatello Water Pollution Control Department, ID  
 American Bottoms Regional Wastewater Treatment Facility, IL  
 Bloomington and Normal Water Reclamation District, IL  
 Danville Sanitary District, IL  
 Downers Grove Sanitary District, IL  
 Fox Metro Water Reclamation District, IL  
 Fox River Water Reclamation District, IL  
 Greater Peoria Sanitary District, IL  
 Hinsdale Sanitary District, IL  
 Metropolitan Water Reclamation District of Greater Chicago, IL  
 North Shore Sanitary District, IL  
 Rock River Water Reclamation District, IL  
 Sanitary District of Decatur, IL  
 Springfield Metro Sanitary District, IL  
 Thorn Creek Basin Sanitary District, IL  
 Urbana & Champaign Sanitary District, IL  
 City of Fort Wayne, IN  
 City of Indianapolis Department of Public Works, IN  
 City of Valparaiso – EKPCF, IN  
 Gary Sanitary District, IN  
 Sanitary District of Hammond, IN  
 City of Olathe, Kansas, KS  
 City of Wichita, KS  
 Johnson County Kansas Wastewater, KS  
 Unified Government Wyandotte County, KS  
 Lexington-Fayette Urban County Government Division of Sanitary Sewers, KY  
 Metropolitan Sewer District Louisville & Jefferson County, KY  
 Paducah McCracken Joint Sewer Agency, KY  
 Sanitation District No. 1, KY  
 Sewerage & Water Board of New Orleans, LA  
 City of Gloucester Water Compliance Office, MA  
 Fall River Sewer Commission, MA  
 Greater Lawrence Sanitary District, MA  
 Lowell Regional Wastewater Utility, MA  
 Lynn Water and Sewer Commission, MA  
 Massachusetts Water Resources Authority Finance Division, MA  
 New Bedford Wastewater Division, MA  
 South Essex Sewerage District, MA  
 Springfield Water & Sewer Commission, MA  
 Upper Blackstone Water Pollution Abatement District, MA  
 Anne Arundel County Department of Public Works, MD  
 Howard County Department of Public Works, MD  
 Washington Suburban Sanitary Commission, MD  
 Augusta Sanitary District, ME  
 City of Bangor, ME  
 City of Flint – Water Pollution Control, MI  
 City of Kalamazoo Public Services Department, MI  
 City of Saginaw, MI  
 Detroit Water & Sewerage Department, MI  
 Oakland County Drain Commission, MI  
 Southern Clinton County Municipal Utilities Authority, MI  
 Wayne County Department of Environment, MI  
 Metropolitan Council Environmental Services, MN  
 Rochester, Minnesota Water Reclamation Plant, MN  
 Western Lake Superior Sanitary District, MN  
 City of Lee's Summit Water Utilities, MO  
 City of Springfield, MO  
 Independence Water Pollution Control Department, MO  
 Kansas City Water Department, MO  
 Little Blue Valley Sewer District, MO  
 Metropolitan St. Louis Sewer District, MO  
 Charlotte Mecklenburg Utilities, NC  
 City of Greensboro Water Resources Department, NC  
 City of Raleigh Public Utilities Department, NC  
 City of Salisbury, NC  
 Metropolitan Sewerage District of Buncombe County, NC  
 Orange Water & Sewer Authority, NC  
 Water and Sewer Authority of Cabarrus County, NC  
 City of Omaha Public Works Department, NE

City of Nashua, Wastewater Treatment Facility, NH  
 Atlantic County Utilities Authority, NJ  
 Bergen County Utilities Authority, NJ  
 Edgewater Municipal Utilities Authority, NJ  
 Ewing-Lawrence Sewerage Authority, NJ  
 Gloucester County Utilities Authority, NJ  
 Hamilton Township Wastewater Utility, NJ  
 Jersey City Municipal Utilities Authority, NJ  
 Joint Meeting of Essex & Union Counties, NJ  
 Kearny Municipal Utilities Authority, NJ  
 Middlesex County Utilities Authority, NJ  
 North Bergen Municipal Utilities Authority, NJ  
 Ocean County Utilities Authority, NJ  
 Passaic Valley Sewerage Commissioners, NJ  
 Rahway Valley Sewerage Authority, NJ  
 Secaucus Municipal Utilities Authority, NJ  
 Somerset Raritan Valley Sewerage Authority, NJ  
 Stony Brook Regional Sewerage Authority, NJ  
 City of Albuquerque – Wastewater Utility  
 Division PWD, NM  
 City of Santa Fe, NM  
 City of Henderson, NV  
 City of Las Vegas Water Pollution Control  
 Facility, NV  
 Clark County Sanitation District, NV  
 Truckee Meadows Water Reclamation Facility, NV  
 Albany County Sewer District, NY  
 County of Monroe Department of  
 Environmental Services, NY  
 Great Neck Water Pollution Control District, NY  
 Ithaca Area Waste Water Treatment Facility  
 City of Ithaca Water Plant, NY  
 NYC Department of Environmental  
 Protection, NY  
 Nassau County Department of Public Works –  
 Cedar Creek WPCP, NY  
 Onondaga County Department of Water  
 Environment Protection, NY  
 Rockland County Sewer District #1, NY  
 Suffolk County Department of Public Works, NY  
 Butler County Department of Environmental  
 Services, OH  
 City of Akron Public Utilities Bureau, OH  
 City of Canton Water Pollution Control Center, OH  
 City of Columbus Division of Sewerage &  
 Drainage, OH  
 City of Dayton – Department of Water, OH  
 City of Hamilton Department of Public Works, OH  
 City of Lebanon, OH  
 City of Lima, Utilities Department, OH  
 City of Mason, OH  
 City of Middletown, OH  
 City of Oregon Wastewater Treatment Plant, OH  
 City of Toledo Department of Public Utilities, OH  
 City of Troy, OH  
 Metropolitan Sewer District of Greater  
 Cincinnati, OH  
 Northeast Ohio Regional Sewer District, OH  
 City of Oklahoma City Water & Wastewater  
 Utilities Department, OK  
 City of Stillwater Water Utilities, OK  
 City of Tulsa Public Works Department  
 Environmental Operations Division, OK  
 City of Albany, Oregon, OR  
 City of Corvallis – Public Works Department, OR  
 City of Eugene Wastewater Division, OR  
 City of Gresham Department of Environmental  
 Services, OR  
 City of Klamath Falls, Oregon Department of  
 Public Works, OR  
 City of Portland – Bureau of Environmental  
 Services, OR  
 City of Salem, OR  
 City of Wilsonville, OR  
 Clean Water Services, OR  
 Oak Lodge Sanitary District, OR  
 Water Environment Services of Clackamas  
 County, OR  
 Allegheny County Sanitary Authority, PA  
 Derry Township Municipal Authority, PA  
 Philadelphia Water Department, PA  
 The Harrisburg Authority, PA  
 Puerto Rico Aqueduct and Sewer Authority, PR  
 Narragansett Bay Commission, RI  
 Beaufort Jasper Water & Sewer Authority, SC  
 Greenwood Metropolitan District, SC  
 Mount Pleasant Waterworks, SC  
 Spartanburg Water System and Sanitary Sewer  
 District, SC  
 The Charleston Commissioners of Public  
 Works, SC  
 Western Carolina Regional Sewer Authority, SC  
 City of Chattanooga Moccasin Bend Wastewater  
 Treatment Plant, TN  
 City of Johnson City, TN  
 City of Kingsport, TN  
 City of Memphis Division of Public Works, TN  
 City of Oak Ridge, TN  
 Knoxville Utilities Board, TN  
 Metropolitan Government of Nashville &  
 Davidson County, TN  
 Brownsville Public Utilities Board, TX  
 City of Amarillo, TX  
 City of Austin Water & Wastewater Utility, TX  
 City of College Station, TX  
 City of Corpus Christi Wastewater  
 Department, TX  
 City of Garland, TX  
 City of Houston, Public Works &  
 Engineering/Public Utilities Division, TX

Dallas Water Utilities, TX  
 El Paso Water Utilities Public Service Board, TX  
 Fort Worth Water Department, TX  
 Gulf Coast Waste Disposal Authority, TX  
 North Texas Municipal Water District, TX  
 San Antonio Water System, TX  
 Trinity River Authority of Texas, TX  
 Upper Trinity Regional Water District, TX  
 Weatherford Municipal Utilities, TX  
 Central Davis County Sewer District, UT  
 Central Valley Water Reclamation Facility, UT  
 Salt Lake City Public Utilities, UT  
 Snyderville Basin Water Reclamation District, UT  
 Alexandria Sanitation Authority, VA  
 Arlington County, VA Department of  
 Environmental Services, VA  
 Chesterfield County Utilities, VA  
 City of Richmond – Department of Public  
 Utilities, VA  
 County of Stafford Department of Utilities, VA  
 Fairfax County Wastewater Management  
 Program, VA  
 Hampton Roads Sanitation District, VA  
 Hanover County Department of Public Utilities, VA  
 Henrico County Public Utilities, VA  
 Hopewell Regional Wastewater Treatment  
 Facility, VA  
 Lynchburg Wastewater Treatment Facility  
 City of Lynchburg, Utility Division, VA  
 Pepper’s Ferry Regional Wastewater  
 Treatment Authority, VA  
 Prince William County Service Authority, VA  
 Upper Occoquan Sewage Authority, VA  
 City of Everett Public Works Department, WA  
 City of Tacoma Public Works Department, WA  
 King County Department of Natural Resources, WA  
 Lakehaven Utility District, WA  
 City of Fond du Lac, WI  
 City of Superior – Wastewater Division, WI  
 Green Bay Metropolitan Sewerage District, WI  
 Heart of the Valley Metropolitan Sewerage  
 District, WI  
 Madison Metropolitan Sewerage District Nine  
 Springs Wastewater Treatment Plant, WI  
 Milwaukee Metropolitan Sewerage District, WI  
 Racine Wastewater Utility, WI  
 Morgantown Utility Board, WV

## Public Affiliates

City of Fontana, CA  
 Los Angeles County, Department of Public Works  
 (WW & SM), CA  
 Pleasant View Water & Sanitation District, CO  
 Boston Water & Sewer Commission, MA  
 Van Buren Township Water & Sewer  
 Department, MI  
 City of Milwaukie, OR  
 City of Spartanburg, SC  
 Greer Commission of Public Works, SC  
 Greenville Metropolitan Sewer Sub-District, SC  
 City of Norfolk Department of Utilities, VA  
 City of Virginia Beach Dept. of Public Utilities, VA  
 Seattle Public Utilities, WA

# Association of Metropolitan Water Agencies Officers and Board of Directors

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Greater Cincinnati Water Works, OH

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Metropolitan Water District of Southern  
California, CA

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Anchorage Water & Wastewater Utility, AK

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Tucson Water, AZ

Chips Barry  
Denver Water Department, CO

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DC Water & Sewer Authority, DC

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Tampa Water Department, FL

L. D. McMullen  
Des Moines Water Works, IA

Richard Rice  
Chicago Department of Water, IL

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Sewerage & Water Board of New Orleans, LA

Patricia Mulroy  
Las Vegas Valley Water District, NV

Christopher O. Ward  
New York City Department  
of Environmental Protection, NY

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Cleveland Division of Water, OH

Edmund Archuleta  
El Paso Water Utilities, TX

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Newport News Waterworks, VA

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Tacoma Water, WA

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Madison Water Utility, WI

Diane VanDe Hei  
*Executive Director*

# Association of Metropolitan Water Agencies

## Member Agencies

Anchorage Water & Wastewater Utility, AK  
Birmingham Water Works & Sewer Board, AL  
Board of Water & Sewer Commissioners of the  
City of Mobile, AL  
Montgomery Water Works/Sanitary Sewer  
Board, AL  
Regional Water Authority of Central Arkansas, AR  
Beaver Water District, AR  
City of Chandler, AZ  
City of Glendale, AZ  
City of Mesa, AZ  
Phoenix Water Services Department, AZ  
City of Scottsdale, Water Resources  
Department, AZ  
Tempe Water Utilities Department, AZ  
Tucson Water, AZ  
City of Yuma, AZ  
Anaheim Public Utilities Department, CA  
West Basin Municipal Water District, CA  
Coachella Valley Water District, CA  
Contra Costa Water District, CA  
San Juan Water District, CA  
City of Huntington Beach, CA  
Helix Water District, CA  
Long Beach Water Department, CA  
Metropolitan Water District of Southern  
California, CA  
Los Angeles Department of Water & Power, CA  
East Bay Municipal Utility District, CA  
City of Riverside, CA  
City of Sacramento, CA  
San Bernardino Municipal Water Department, CA  
City of San Diego, CA  
San Francisco Public Utilities Commission, CA  
Santa Clara Valley Water District, CA  
Sonoma County Water Agency, CA  
Aurora Utility Department, CO  
Colorado Springs Utilities, CO  
Denver Water Department, CO  
City of Fort Collins Utilities, CO  
Board of Water Works of Pueblo, CO  
City of Thornton, CO  
The Metropolitan District of Hartford County, CT  
South Central CT Regional Water Authority, CT  
DC Water & Sewer Authority, DC  
Wilmington Department of Public Works, DE  
City of Boca Raton – Utility Services  
Department, FL  
Hernando County Utilities Department, FL  
Pinellas County Utilities, FL  
Tampa Bay Water, FL  
JEA, FL  
City of Lakeland, FL  
Miami-Dade Water & Sewer Department, FL  
Orange County Public Utilities Division, FL  
Orlando Utilities Commission, FL  
Broward County Office of Environmental  
Services, FL  
City of St. Petersburg Water Treatment Plant, FL  
Tampa Water Department, FL  
Palm Beach County Water Utilities Department, FL  
City of Atlanta Department of Water, GA  
Augusta Utilities Department, GA  
Columbus Water Works, GA  
Macon Water Authority, GA  
Cobb County-Marietta Water Authority, GA  
City of Savannah, Water & Sewer Bureau, GA  
Hawaii County Department of Water Supply, HI  
Honolulu Board of Water Supply, HI  
Cedar Rapids Water Department, IA  
Des Moines Water Works, IA  
Chicago Department of Water, IL  
Fort Wayne City Utilities, IN  
South Bend Water Works, IN  
KC Board of Public Utilities, KS  
WaterOne, KS  
City of Topeka Water Division, KS  
Northern Kentucky Water District, KY  
Louisville Water Company, KY  
Lafayette Utilities System, LA  
Sewerage/Water Board of New Orleans, LA  
Boston Water & Sewer Commission, MA  
Massachusetts Water Resources Authority, MA  
Springfield Municipal Water Department, MA  
City of Worcester Department of Public Works, MA  
Anne Arundel County DPW, MD

Washington Suburban Sanitary Commission, MD  
 Portland Water District, ME  
 Ann Arbor Water Utilities, MI  
 Detroit Water & Sewerage Department, MI  
 Genesee County Water & Waste Services, MI  
 Saginaw Water Treatment Plant, MI  
 Minneapolis Water Works, MN  
 St. Paul Regional Water Services, MN  
 Independence Missouri Water Department, MO  
 Kansas City Water Services Department, MO  
 City Utilities of Springfield, MO  
 St. Louis Water Division, MO  
 Fayetteville Public Works Commission, NC  
 Raleigh Public Utilities Department, NC  
 Omaha Metropolitan Utilities District, NE  
 Manchester Water Works, NH  
 Passaic Valley Water Commission, NJ  
 North Jersey District Water Supply Commission, NJ  
 Albuquerque Public Works Department, NM  
 City of Santa Fe Water Division, NM  
 City of Henderson, NV  
 Las Vegas Valley Water District, NV  
 County of Washoe, NV  
 Albany, Department of Water & Water Supply, NY  
 Erie County Water Authority, NY  
 New York City Department of Environment  
 Protection, NY  
 Suffolk County Water Authority, NY  
 Monroe County Water Authority, NY  
 OCWA-Central NY's Water Authority, NY  
 City of Syracuse, NY  
 Akron Public Utilities Bureau, OH  
 Greater Cincinnati Water Works, OH  
 Cleveland Division of Water, OH  
 Columbus Water Utilities, OH  
 Butler County Department of Environmental  
 Services, OH  
 City of Toledo Public Utilities, OH  
 OKC Water & Wastewater Utilities, OK  
 City of Tulsa Public Works Department, OK  
 Tualatin Valley Water District, OR  
 City of Portland Bureau of Water Works, OR  
 City of Salem Public Works, OR  
 Erie City Water Authority, PA  
 Municipal Authority of Westmoreland County, PA  
 The Harrisburg Authority, PA  
 Philadelphia Water Department, PA  
 West View Water Authority, PA  
 Puerto Rico Aqueduct & Sewer Authority, PR  
 Pawtucket Water Supply Board, RI  
 Providence Water Supply Board, RI  
 Charleston Commissioners of Public Works, SC  
 Grand Strand Water & Sewer Authority, SC  
 Spartanburg Water System, SC  
 City of Sioux Falls, SD

Clarksville Gas & Water Department, TN  
 Knoxville Utilities Board – Engineering &  
 Operations, TN  
 Memphis Light, Gas & Water Division, TN  
 Nashville Department of Water & Sewerage  
 Services, TN  
 City of Austin Water & Wastewater Utility, TX  
 City of Corpus Christi Water Department, TX  
 Dallas Water Utilities, TX  
 El Paso Water Utilities, TX  
 Fort Worth Water Department, TX  
 Houston Public Utilities, TX  
 City of Irving, Water Utilities Department, TX  
 Bell County Water Control and Improvement  
 District #1, TX  
 City of Lubbock Water Utilities, TX  
 San Antonio Water System, TX  
 Salt Lake City Public Utilities Department, UT  
 Metropolitan Water District of Salt Lake and  
 Sandy, UT  
 City of Chesapeake Utilities, VA  
 Chesterfield County Utilities Department, VA  
 Loudoun County Sanitation Authority, VA  
 Fairfax County Water Authority, VA  
 Newport News Waterworks, VA  
 Norfolk Department of Utilities, VA  
 City of Richmond, Department of  
 Public Utilities, VA  
 City of Virginia Beach, VA  
 Prince William County Service Authority, VA  
 Champlain Water District, VT  
 City of Bellevue, WA  
 City of Everett, WA  
 Seattle Public Utilities, WA  
 Tacoma Water, WA  
 Green Bay Water Utility, WI  
 Madison Water Utility, WI  
 Milwaukee Water Works, WI  
 Morgantown Utility Board, WV  
 City of Laramie Water Department, WY

## Public Affiliates

The City of Olathe, KS  
 City of Eden Prairie Utilities Division, MN  
 Orange Water and Sewer Authority, NC  
 Winchester Utilities, TN  
 Snohomish County Public Utility District, WA  
 Lakehaven Utility District, WA



**The Association of Metropolitan Sewerage Agencies (AMSA)** is a national trade association representing over 270 of the nation's publicly owned wastewater utilities. AMSA members serve the majority of the sewered population in the United States and collectively treat and reclaim over 18 billion gallons of wastewater every day. AMSA members are environmental practitioners dedicated to protecting and improving the nation's waters and public health.

Today's increasingly complex threats to the nation's water quality present many legislative and regulatory challenges to the wastewater treatment industry. AMSA engages policy makers on the national level on priority issues, such as wastewater infrastructure security and funding, the development of enforceable nonpoint source controls and the future of municipal wet weather control efforts.

For additional information on AMSA and its initiatives, please call AMSA's National Office at 202/833-AMSA or visit the *Clean Water on the Web* site at <http://www.amsa-cleanwater.org>.



**The Association of Metropolitan Water Agencies (AMWA)** serves drinking water utilities that provide clean, safe water to more than 110 million Americans. The Association represents the interests of these large publicly owned drinking water systems by working with Congress and the federal agencies to ensure safe and cost-effective federal drinking water laws and regulations. AMWA is also the U.S. EPA-designated liaison between the water sector and the federal government on critical infrastructure protection.

Keeping pace with tremendous changes in the drinking water industry, AMWA focuses on competitiveness issues, providing programs, publications and services to help water suppliers be more effective and efficient. For more information call AMWA at 202/331-2820 or visit <http://www.amwa.net>.





Association of  
Metropolitan Sewerage  
Agencies

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