

Public vs. Private: Comparing the Costs



An AMWA/AMSA Report

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Acknowledgements

Public vs. Private: Comparing the Costs was produced and published by the Association of Metropolitan Water Agencies (AMWA) and the Association of Metropolitan Sewerage Agencies (AMSA). *Public vs. Private: Comparing the Costs* provides an in-depth examination of specific processes and results of managed competitions between public providers and private firms and complements the content of the AMSA/AMWA publication, *Evaluating Privatization II*.

Special thanks are extended to Harold Gorman, Member of AMSA's and AMWA's Board of Directors and Executive Director of the Sewerage and Water Board of New Orleans, La., for his extensive cooperation and agency data, which greatly enhanced this publication.

This document was prepared under the general direction of the AMSA Board of Directors, AMWA Board of Directors and staff leadership by the PA Consulting Group, Inc., under the direction of Dr. Kenneth I. Rubin.

Both AMSA and AMWA are hopeful that *Public vs. Private: Comparing the Costs* will strengthen the knowledge of decision makers as they evaluate the merits of public water and wastewater utility management and operation alternatives and, ultimately, select of the best local course of action.

November 2002

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Introduction & Executive Summary

Over the last decade, competition for the right to provide municipal drinking water and wastewater management services in the U.S. has resulted in several significant awards to private providers as well as widespread reduction in costs of public operations. Some of the most dramatic comparisons between public and private alternatives have resulted from “managed competitions” where bids were solicited from the existing public owner/operator and from multiple private firms that believed they could reduce operating costs. This process inevitably requires a comparison of public and private costs, which sounds like simple mathematics, but rarely is.

Accordingly, the Association of Metropolitan Water Agencies and the Association of Metropolitan Sewerage Agencies have cooperated on this publication with the intent of more fully defining cost elements that should be taken into account on both the public and private sides of any cost comparison. It is designed for governing bodies of public utilities that may be contemplating a potential switch from public operations to a private service contract. By applying the framework, public decision makers can assure themselves and their constituents that they are delivering the highest quality services at the lowest possible price.

What’s Wrong With the Way We Currently Compare Costs?

To be sure, public utilities will get better at comparing their costs to those of others with each new private challenge they face. But, we’re not there yet.

First, it is not at all uncommon to compare current public costs to future, optimized costs offered by private operators. Many private operators use such comparisons in their public relations materials: “If we ran this plant, we’d save the city 40% of their current costs.” But this is a false comparison since it assumes that the public sector can or will never become more cost-effective. Evidence supports just the opposite — when given the chance, hundreds of public water and wastewater utilities adopted more aggressive management techniques and matched or bettered world-class benchmarks of efficiency. Not surprisingly, the public sector has won several high-profile managed competitions recently.

Second, recent awards to private firms have not always resulted in the cost savings that were originally projected, despite best efforts to establish cost controls or otherwise fix costs in service contracts. In some cases, projected savings are never realized, leading in the simplest of cases to private appeals for contract adjustments or add-on services for additional fees. In more complicated instances, especially where public and private claims and counter-claims are irreconcilable, contracts can result in default, mutual agreements not to renew, or breach.

Finally, the calculus used to compare future public to private costs is not simple. It is not at all uncommon to eliminate future public costs that will still be there under private contract operations or underestimate additional public costs that must be added to manage these contracts. Some private costs are easily overlooked, especially where service contracts are not sufficiently explicit about what the private contractor must do.

To help correct these problems, this publication suggests both a process and a cost-com-

parison framework that can result in better decisions about whether to embark on a managed competition or other form of outsourcing strategy.

The Process

By following the six-step analysis which follows, and answering two simple questions, public decision makers can quickly decide whether private operations and management makes any sense, and if it might, how to choose between the best private and public bids.

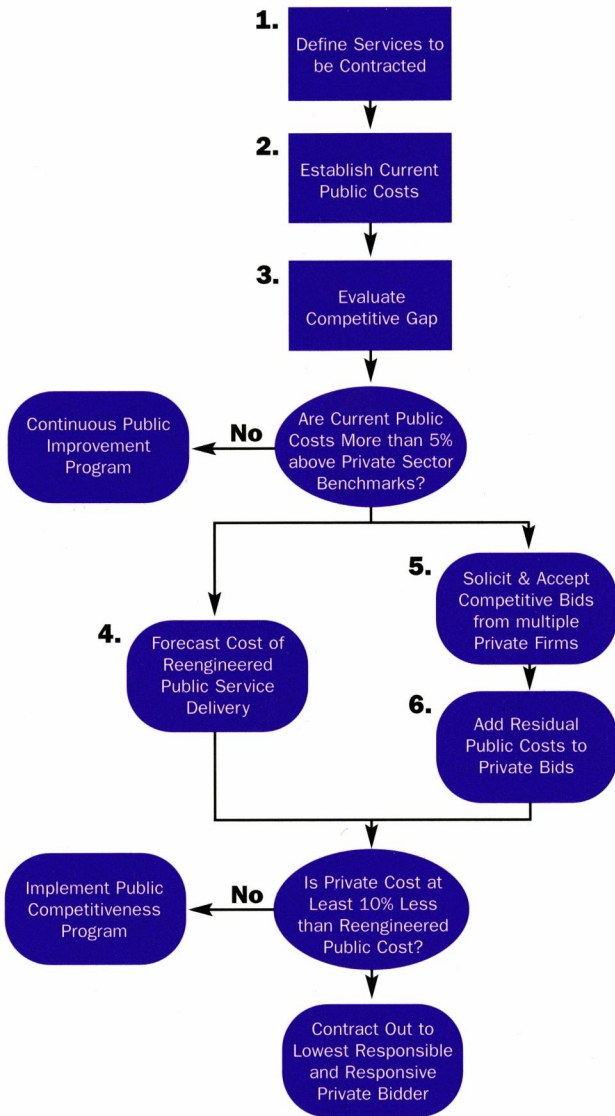
After step three, it is appropriate to evaluate the difference between current public costs and world-class benchmarks for efficiency in operations. If there is little difference, defined here as 5% or less, then it makes no sense to continue exploring private operations. If there is a significant gap, there may well be public benefit from additional analysis.

After doing more work to establish future, reengineered public costs and solicit private bids from several firms, it is again appropriate to ask whether a change to private management is in the best interest of customers and citizens. Experience suggests that all of the non-quantifiable costs of converting from public to private management could well consume a small difference in costs, so the difference should be at least 10% to warrant a change. If it is less than that, it may well make sense to accept the public bid and enforce their reengineering program, holding the public sector fully accountable for results.

Since steps 4-6 are not always straightforward, it is well worth exploring how future public and private costs should be estimated and compared.

Estimating Future Public Costs

The public costs of service must include all activities necessary to provide the specified level and scope of services, assuming the public management team is enabled to make changes in their organization, work processes, and technology. These changes must be specified in the public estimate of reengineered costs of service.



Depending on the scope of services in question, future public costs will generally include personnel costs (labor and benefits); overhead and management associated with operations functions as well as provision of business support services, such as procurement, human resources, engineering, or accounting and finance; materials, equipment, and supplies; utilities and fuel; insurance; contract services, and one-time conversion costs.

In light of projected changes in organization, work processes, and/or technology that may be necessary to improve productivity, estimates of future public costs must be fully justified and considered as if the future organization were operating today. Costs must be complete and realistic, since public managers will be held accountable to their projections.

Future Private Costs

Private costs include those that potential private operators bid directly plus several adjustments to public costs occasioned as a result of conversion from public to private management. As-bid costs generally include the same categories of labor and other costs mentioned above. In addition to the costs identified and proposed by private providers, cost adjustments (both positive and negative) could include those associated with exceptions and exclusions to contract terms, public contract management costs that would not be incurred with public operations, one-time conversion costs, gain or loss on disposal or transfer of assets, taxes that would be paid to the local government as a result of profits earned by the private provider, and new public costs for purchased services such as third-party auditing or additional public participation.

Concluding Thoughts

Using the process and cost comparison framework provided in this publication, local governments can take considerable comfort that their future utility management decisions will be based on the best information available and a level playing field. Evidence drawn from recent transactions bears this out. In some instances such as Atlanta, Ga., private sector's costs of running the City's water utility were lower than public costs and management changed hands. In other recent managed competitions including Charlotte-Mecklenburg, N.C.; New Orleans, La.; Tulsa, Okla.; and Toledo, Ohio, future public costs were lower than private costs and public management continued. This was possible because the public sector adopted private management techniques when they were provided incentives and enabled administratively and/or legally to do so.

With management approaches on both the public and private sides yielding comparable operating savings, other factors drive private costs up. Generally, the private sector must charge extra to earn a return on its investment to compensate the risks it takes, support the price of its stock or otherwise create value for shareholders, pay taxes on their net earnings, and pay more for investment capital.

Either way — optimized public or private operations — the public wins with improved services and/or reduced costs. The keys to getting there are a sound decision process and an equitable cost comparison framework.

I. Generalized Cost Comparison Process and Framework

The discussion below presents a generalized process that results in appropriate decisions about whether to pursue a public-private comparison of cost, and if appropriate, what steps are needed to fully evaluate both public and private service provision.

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Define Services to be Contracted

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.

Establish Current Public Costs

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. They include the following elements:

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.

Materials – 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 commercially or self-underwritten liability and casualty insurance that will not be incurred if the service is contracted out.

Operations Overhead – Administrative costs within the utility; 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 utility currently providing services, but required because of the operations of that utility, 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 contracting out. 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 utility to utility, and is dependent on local workloads and employment practices, each utility should examine these avoided costs carefully, and make realistic assumptions about their ability to achieve these indirect savings in practice.

Evaluate Competitive Gap

Once current public costs are known, they can be compared to “best-in-class” benchmarks for provision of the same services. One way to do this is through a competitive gap analysis, as documented in the AMSA/AMWA publication, *Thinking, Getting, and Staying Competitive: A Public Sector Handbook*.

If the gap is not more than five percent, then it is probably not worth the transaction costs it will take to extract the final five percent of costs from the utility through competitive means. Instead, it is probably more cost-effective to launch a continuous improvement program, as described below. Moreover, it will be difficult to attract qualified private firms to compete for contract services at a utility whose competitive gap is only five percent.

Continuous Public Improvement Program

In a continuous improvement program, the utility prepares an improvement plan that specifies exactly what needs to be done, with specific deadlines, to close its competitive gap completely. The plan is produced and agreed to by management and staff and submitted to the appropriate governing board. Once approved, budgets should be amended to reflect financial performance targets.

Progress is then measured periodically and checked against milestones established in the plan. Progress also is reported to the appropriate governing board. It will be important to recalibrate this plan every 3-5 years, since benchmarks will change over time.

Forecast Costs of Reengineered Public Service Delivery

In the event that the competitive gap is more than five percent, it may be cost-effective to launch a full-fledged managed competition. The key variable that may mitigate against this process is cost, so before beginning, it will be important to translate the competitive gap into dollar terms and compare potential savings against the cost of a managed competition. Depending on the size of the utility and the scope of services to be contracted, recent costs to set up and run managed competitions have ranged between \$500,000 and \$3,000,000.

Depending on the scope of services in question, public reengineering efforts could include all or parts of three types of utility functions, each of which as a rule of thumb, constitutes roughly one-third of “average” annual utility expenditures:

- Core operations and maintenance activities,
- Business support services, and
- Capital asset management and debt servicing.

In each case, methods to assess the costs associated with reengineering are well-documented in the following sources:

Core Operations & Maintenance: *Thinking, Getting, and Staying Competitive: A Public Sector Handbook*, published by the Association of Metropolitan Sewerage Agencies and the Association of Metropolitan Water Agencies, Washington, DC.

Business Support Services: *Creating High-Performance Business Services: A Public Sector Handbook*, published by the Association of Metropolitan Sewerage Agencies and the

Association of Metropolitan Water Agencies, Washington, DC.

Capital Management and Debt Servicing: *Managing Public Infrastructure Assets to Minimize Cost and Maximize Performance*, published by the Association of Metropolitan Sewerage Agencies, the Association of Metropolitan Water Agencies, the Water Environment Federation, and the American Water Works Association, Washington, DC.

The cost of reengineered public services are projections of the cost effects of applying new organizational approaches, efficient work practices, and targeted technologies on separable elements of the scope of services in question. In some cases, it may be necessary to make certain investments to achieve cost savings and these should be subtracted from the projected savings stream so that savings are presented on a “net” basis. In addition, it may be necessary to revise policies, or even statutes to enable the public organization to implement certain cost-saving efforts. Often, specialized consultants or peers from other public organizations are brought in to estimate what should be done to reduce costs. Where this is the case, the cost of these consultants must be subtracted from projections of reengineered public costs.

Cost elements to be considered will depend on the scope of services in question, but typically include:

Core Operations and Maintenance: labor, fringe benefits, materials and supplies, rent, utilities, insurance, appropriate elements of operations overhead, and general management;

Business Support Services: engineering, procurement, marketing, planning, customer care, compliance, emergency response, external relations, laboratory, human resources, information management, fleet management, building and grounds, legal and professional services, budgeting and finance; and

Capital Management and Debt Servicing: capital investments, cost of capital, and capital management overhead.

Simply projecting public reengineered costs is not enough. This process also must include a schedule of accomplishments and milestones leading to full attainment of claimed savings plus measures to be reported to upper management that demonstrate progress toward achieving these milestones.

Depending on local circumstances and restrictions, public utilities should seek to secure claims of projected savings in as firm a manner as possible. Alternatives include Memorandums of Understanding, incentives and penalties in labor agreements, agreements to re-open outside competition if milestones are not achieved, and so on.

Solicit & Accept Competitive Bids From Multiple Private Firms

Utility management should conduct a systematic solicitation of bids from multiple private firms to deliver the scope of services in question. This solicitation process should specify exactly the same scope of services on which the public reengineering is based.

Preparation of Requests for Qualifications (RFQs) and Requests for Proposals (RFPs), which generally is the accepted approach to solicit and evaluate private bids, can be complex undertakings. This process is presented in considerable detail in *Managed Competition: Developing and Responding to RFQs and RFPs*, published by the Association of Metropolitan Sewerage Agencies in 1997. The reader is referred to this document in general and specifically to Appendix A, which provides a generalized RFP outline.

In addition to a variety of other information regarding the firms’ qualifications and approach, solicitations typically request that private bidders provide firm fixed prices for annual service fees, plus the basis for annual escalation of those fees over the contract period. Depending on the procurement philosophy and/or legal framework, different issuing utilities may also choose to ask for more definition in price for specific components of the total annual service fee.

Add Residual Public Costs to Private Bids

Service fees as bid do not necessarily represent all public costs of future private service delivery. The following types of costs should be added to the annual service fee as bid by private firms:

- Contract administration;
- Solicitation, negotiation, and decision costs;
- One-time conversion costs;
- Gain or loss from disposal or transfer of assets; and
- Tax gains.

Each of these cost elements will be discussed in greater detail subsequently.

Implement a Competitiveness Program

In the event that the lowest as-bid private annual service fee plus adjustments is no more than 10% less than the public bid, it is probably in the public interest to pursue continued public service provision and a public competitiveness program to achieve projected cost savings.

The choice of 10% is arbitrary, but has been used by the federal government in its decision making process on outsourcing to private entities for several decades. In fact, the federal decision process affects all kinds of service conversions:

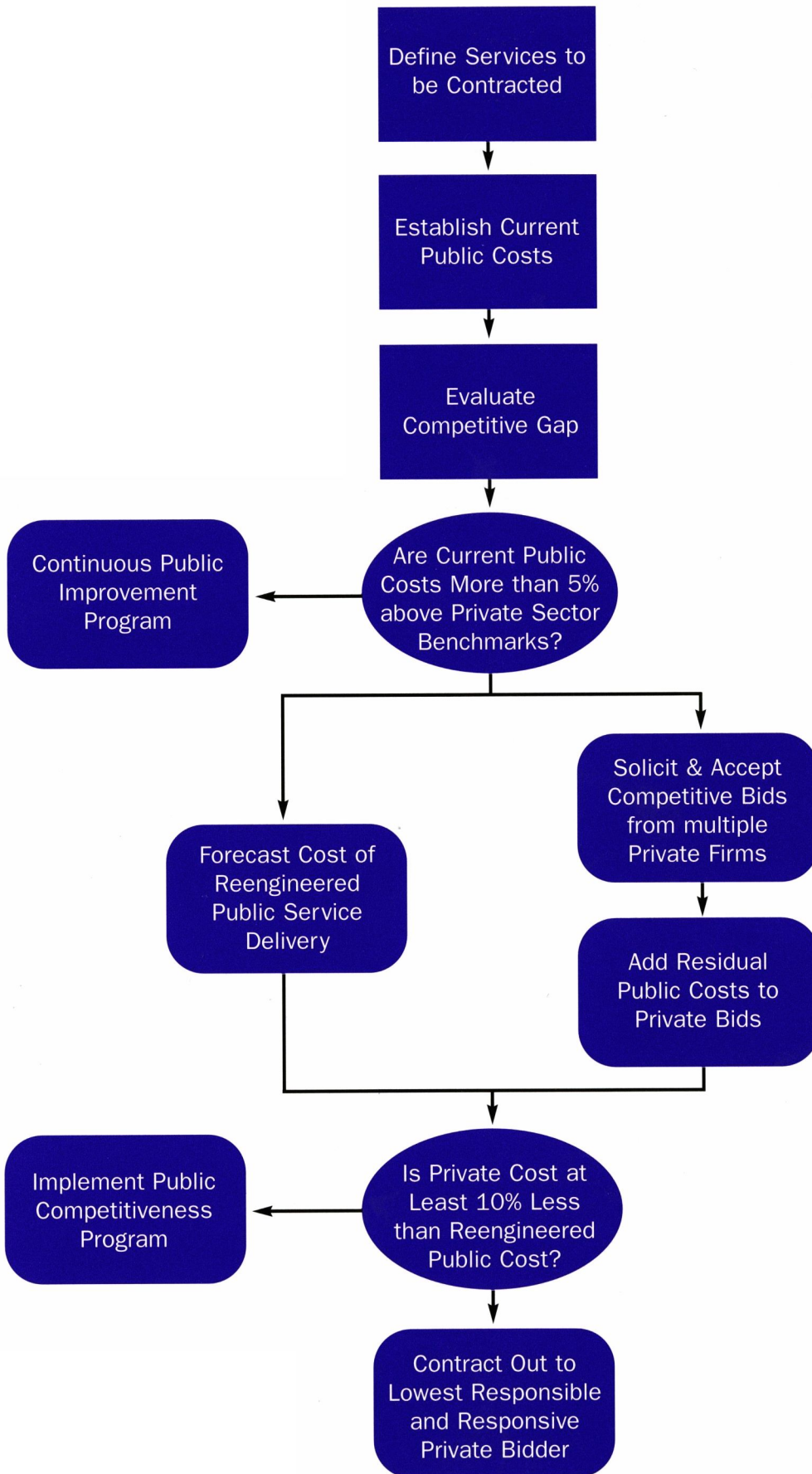
“A minimum cost differential of the lesser of (1) 10 percent of personnel costs or (2) \$10 million over the performance period, has been established that must be met before converting to or from in-house, contract, or interservice support agreement performance.”¹

The differential is designed to protect against conversions where marginal cost savings might be offset by such factors as reduced productivity during conversion, costs associated with disruption in services surrounding conversion, the risks of failure and costs associated with re-conversion, the risk of return of capital plant and equipment to the public sector in worse condition than when received, and other unforeseen and unpredictable conversion costs.

Where adjusted private costs do meet this criterion, continued public service coupled with a competitiveness program is likely to be the most efficient course. A full public competitiveness program essentially implements the reengineering program described above. It is not unusual to expect implementation to take three to five years.

Contract Out to Lowest Responsive and Responsible Bidder

After the evaluation team has selected the lowest responsive and responsible bidder — public or private — it must sign an appropriate agreement to bind the service provider to its as-bid commitments. In the case of a private provider, a contract must be negotiated and signed. If the winner is the public bid, then typically a *Memorandum of Understanding* is the appropriate agreement, since a public entity cannot typically contract with itself (see flow chart on page 13).



II. Defining Public Costs of Service Delivery

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The public cost of service is comprised of the sum of cost elements that will be necessary to provide the specified level and scope of services, assuming the public management team is enabled to make changes in their organization, work processes, and technology. These changes must be specified in the public estimate of reengineered costs of service.

All costs are typically expressed in annual terms and should be escalated each year over the contract period by a fixed percentage such as the consumer price index or other relevant inflation index. It is important to include only those public costs that will not be incurred in the event that a private firm is awarded a competitive service contract. These are sometimes referred to as, “go-away costs.”

Assuming the scope of services in question covers core operations and maintenance and business support services, the following cost elements generally must be considered:

Personnel Costs

Personnel costs are comprised of the sum of the following cost elements:

Direct Labor – the combined salary and wage costs of all direct in-house staff and management positions necessary to accomplish requirements and deliver services as specified in the scope of work. Include in this cost element an estimate of overtime wages for employees that are legally entitled to such pay.

Incentive Pay – all estimated bonus and related payments that may be conditional on performance and/or skills. Such costs will vary considerably and depend on the reengineering plan in place and local allowability of performance and skills-based pay.

Fringe Benefits – all costs associated with statutory fringe benefits (unemployment insurance, social security), health and other insurances paid on behalf of the employees, vacation entitlements, sick and other leave entitlements, retirement plan entitlements, workmen’s compensation, uniform allowances, and other fringe benefits unique to local circumstances. Non-entitlement fringe benefits should be estimated based on historical patterns of use. Note that fringe cost elements should be applied only to those employees who are entitled to receive them. Typically, for example, full-time permanent employees receive more fringe benefits than do part-time or temporary employees.

Contract Labor – the total annual cost of all labor secured under contract (as opposed to direct employee labor).

Estimates of personnel costs typically are built up from staffing plans that specify the number and skill level of each labor position needed to meet the scope of services in question.

Overhead and Business Support Services

Typically, there are two levels of overhead costs in water and wastewater utilities:

Operations Overhead – those management activities that are not 100 percent attributable to the scope of services in question, but that are generally needed on a recurring basis to

support that scope of services. Executive and other management is perhaps the most important example of such a cost.

General and Administrative Overhead – these “business support services” are typically provided by public units not directly involved in, but needed to support, core operations and maintenance. While they will vary from utility to utility, examples of such services include:

- | | |
|---------------|---------------------------|
| ■ Legal | ■ Human resources |
| ■ Accounting | ■ Fleet management |
| ■ Finance | ■ Data processing |
| ■ Engineering | ■ Billing and collections |
| ■ Procurement | ■ Warehousing |

It is important to include only those overhead costs that will not be incurred by the public sector should a private firm be awarded a service contract.

Materials, Equipment, and Supplies

Material, equipment, and supply costs for water and wastewater utilities generally include the following elements:

- **Chemicals** – process chemicals including alum, polymers, chlorine, activated carbon needed to support treatment processes;
- **Materials, Tools, and Equipment** – replacement laboratory materials, shop tools, field equipment needed in the normal course of business;
- **Information Technology Equipment** – including new computers, peripherals, process instrumentation, and automation equipment that will be needed to support future public service delivery;
- **Spare Parts** – for fixed equipment and vehicles, as appropriate, to meet the needs of the future public operator; and,
- **Office Supplies** – expressed as a single annual amount based on historical records, as adjusted to meet needs of the future public operator.

It is important to include only those materials, equipment, and supplies that would not be turned over to and used by a private firm under a service contract.

Major capital plant and equipment needed to assure adequate quantities of reliable water or wastewater services at or exceeding specified levels of quality should not be included in the costs of materials and supplies. In most instances, the public sector will be responsible for providing such capital equipment regardless of whether the public sector or private firms have responsibility for service delivery. Often, utility management will set a floor amount for such equipment up to which the private firm will pay and above which the public sector will be responsible.

In addition to setting this floor, utility managers also should specify that the scope of services in question includes maintenance of plant and equipment in the same or better than current condition, except for normal wear and tear. The labor needed to support such maintenance levels will be captured in the costs of personnel.

Utilities and Fuel

Utilities’ costs typically include the following elements that are typically paid to a third-party vendor to support public service provision, but that will not be provided to a private firm should one be awarded a service contract to deliver the scope of services in question:

- | | |
|---------------|---------------------|
| ■ Electricity | ■ Telephone |
| ■ Gas | ■ Internet services |

In some cases, the costs of these utilities should be adjusted from historical metered or

allocated levels to account for new work practices and/or technologies that the public provider plans to adopt, but that have not been part of historical public practices.

Insurance

Public utilities carry many types of insurance, so it will be important to identify only those types of insurance that will not be needed in the event that a private firm is awarded a contract to deliver the scope of services in question. This is important since many public utilities are self-insured at their general government level. Accordingly, it may be impossible to eliminate such insurance costs in response to a private service contract for water or wastewater services. Nonetheless, such insurances could include property (fire, flood, and accidental losses), liability, theft, and vehicles.

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Contract Services

These costs will vary widely from one utility to another, but could include the following types of expenses:

- Building and grounds maintenance
- Vehicle maintenance
- Engineering
- Training
- Legal and accounting
- Billing and collection

Again, it is important to include only those contract costs paid to a third party that will not be incurred by the public sector in the event that a private firm is awarded a service contract.

Other Miscellaneous and One-time Expenses

These can include such expenses as:

- Travel
- Entertainment
- Employee welfare
- Publications
- Public Affairs
- Office or plant adjustments
- Recruitment, conversion, relocation, or training

III. Defining Private Costs of Service Delivery

The cost of private operations and management of drinking water and/or wastewater services includes the direct, contract costs as bid plus additional costs to the public taxpayer that would be incurred as a result of private service delivery.

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Contract Costs

Most managed competitions require private bidders to quote costs as single lump-sum annual charges. Costs expressed in these terms simplify comparisons significantly and should, therefore, be encouraged as long as the RFP is comprehensive and mutually exclusive regarding activities to be outsourced versus those kept in-house and proposals clearly accept all contract terms.

If costs are not presented in this form, the first step will be to convert private cost proposals into equivalent annual costs using present value calculations and the public sector's average cost of capital.

Incentive or award-fee payments should be converted to annual costs by assuming that a fixed percentage of such fees will be awarded. In practice, 65-70 percent has proven to be reasonable.

Public operations and maintenance costs typically occur in roughly equal amounts monthly. Payments of annual private contract amounts should also be required in equal monthly installments. If payments are greater early in the contract year and lower toward the end of the year, an extra cost should be added to the private contract price to account for the public's cost of capital to meet this payment schedule.

Cost of Exceptions and Exclusions

Despite efforts to standardize the scope of services in RFPs, it is not unusual to receive private bids that take exception to terms in the RFP or that exclude certain activities described as part of the scope of services. Where this occurs, costs should be adjusted (both upwards and downwards, as appropriate) to assure that the public bid and all private bids quote costs for identical services and risks.

Contract Administration Costs

The public cost incurred to administer a private service contract must be added to the contract cost for purposes of comparison to public costs. In many cases, these costs are associated with contract administration staff with specialized skills that must be added to public payrolls to deal with such activities as:

- Monitoring compliance with contract terms;
- Processing payment requests;
- Negotiating change orders;
- Reporting internally on contract performance;
- Inspections unique to private contractor service delivery; and,
- Contract closeout

These costs typically include direct and indirect personnel as well as other public support cost elements discussed above. According to the federal Office of Management and Budget, the following are reasonable assumptions for contract administration:

Contract Staffing Plan	Contract Administration Full-Time Staff
10 or less	0.5
11-20	1
21-50	2
51-75	3
76-100	4
101-120	5
121-150	6
151-200	7
201-250	8
251-300	9
301-350	10
351-450	11
451 and above	2.5 percent of contract staffing
Source: Office of Management and Budget, Circular A-76 Revised Supplemental Handbook, March 1996 and updated June 1999.	

Conversion Costs

These are usually one-time costs occasioned by the conversion from public to private operations and maintenance. They can be both positive and negative and include the following:

Excess Equipment and Materials – equipment and materials that will no longer be used by the public provider when a private provider takes over operations should be inventoried and transferred. At least half and up to all of the cost of such an inventory should be added to the private cost.

Labor Conversion Costs – typically where a private contractor hires formerly public sector staff, certain one-time costs are incurred, including benefits transfer, severance pay (if applicable), outplacement and transfer costs, and relocation.

Security Clearances – before a private firm begins operations, the public contracting entity should conduct a full security clearance at both the corporate and individual levels. At the corporate level, it will be important to examine potential security threats associated with both U.S. and if applicable, international operations of the private operator.

Termination Charges – upon conversion from public to private operations, the public provider may have to terminate certain equipment or real property leases and other third-party contracts. Where such termination triggers penalties or fees, these costs should be added to private costs.

Transaction Costs – the cost (if any) associated with the private contracting process in excess of costs of executing an MOU with a public entity should be added to private contract

costs. This could include the cost of staff and consultants for public meetings and hearings related to contracting out services, legal services, accounting services, and all related costs.

Gain or Loss From Disposal of Transfer of Assets

Whenever the public sector transfers assets that would have been used by the public sector had public operation continued to a private provider at a cost less than the net book value of that asset, the public sector incurs a loss. Because it is generally not in the economic interest of the public sector to agree to such transfers, they should be discouraged. But where they occur, such losses, including removal costs should be added to the cost of the private contract. Examples of assets in question include vehicles, laboratory equipment, field equipment, spares, and stock of infrastructure components.

Conversely, where assets are transferred at costs in excess of net book value, gains, less removal costs, should be subtracted from the private cost of service.

Taxes

From the perspective of the local government entity considering a private service contract, any tax payments made by the private service provider represent economic gains relative to continued public service. Such tax payments should be subtracted from the private cost of service. Private bidders as part of their bids should supply estimates of such taxes during the competition phase.

Conversely, payments such as PILOT or other transfers from the public provider to its underlying general government that will not be made upon conversion from public to private service delivery should be added to the private cost of service.

Income Adjustments

Upon conversion from public to private operations and maintenance, the public sector may lose certain revenue streams that it would have enjoyed had public operations continued. Possible sources of revenue to examine include rental income, sale of biosolids, sale of effluent, services contracted to neighboring public jurisdictions, bottled water sales, income from acceptance of septage, and other collateral service charges. If the public bid included these revenue sources as offsets to their costs, they should not be included as additional private costs.

Other Costs

Any additional public costs occasioned by private service delivery that would not be needed under public service delivery should be listed and added to the private contract cost. Typical costs could include new transportation requirements or purchased services such as third-party auditing or additional public participation costs.

IV. Cost Comparison in Practice: New Orleans Sewerage and Water Board

On January 2, 2002, the Sewerage and Water Board of New Orleans (S&WB) issued a RFP for the management, operations, and maintenance of its water and wastewater systems.ⁱⁱ Three entities were pre-qualified and subsequently submitted proposals on February 13, 2002: the Managed Competition Employee Committee (MCEC), U.S. Filter Operating Services, Inc., and United Water New Orleans. A Special Evaluation Committee (SEC) established to review proposals and recommend a selection evaluated all three proposals according to their charge, but provided the S&WB no clear recommendation. Despite spending some \$3.5 million on the process, cost comparisons in practice proved too uncertain to render a clear decision.

Uncertainties Created by the Cost Comparison Framework

The SEC report documenting its evaluation identified three areas of uncertainty in cost comparison that lead to their inability to recommend a clear winner:ⁱⁱⁱ

- Discrepancies among representations of current water and sewer costs by the S&WB, the proposers, and an independent Financial Advisory Team working for the SEC, against which savings associated with proposed costs could be measured;^{iv}
- Alleged inconsistencies in the MCEC bid drawing into question, for example, whether their fee as bid was sufficient to meet their own cash flow requirements in the first three years of operations; and,
- Omissions of certain required costs in U.S. Filter's bid that indicated the potential for costly change orders.

Fundamentally, the SEC was unable to determine which proposal would be most advantageous for ratepayers because future costs of service for each of the three bids was unclear and all three proposals were judged more-or-less equal against the other selection criteria. Comparing the three proposals strictly based on lowest annual cost (250 points out of 1,000 possible) suggests selection of the MCEC bid at \$42,848,327.^v U.S. Filter's bid of \$42,917,000 was the next lowest apparent bid, but correcting for the deficiency noted above, U.S. Filter's adjusted bid came to \$43,157,000. United Water's bid of \$48,906,215 was highest, but the SEC considered it more realistic than the U.S. Filter bid because it appeared to include all costs elements required by the RFP. Accepting the highest bid, in the opinion of the SEC, could well result in avoidance of "many change orders." Relative rankings of the MCEC and both private bids were consistent for all six alternatives required by the RFP (see table on next page).

According to the SEC, all three proposals were acceptable with respect to the other selection criteria: technical approach (250 points), disadvantaged business enterprise plan (175 points), employee compensation and benefits/employee relations and career development program (175 points), quality of the management team (100 points), and employee transition plan (50 points). The SEC never calculated its final numerical scoring across all six selection criteria.

Alternative	MCEC	U.S. Filter (Unadjusted)	United Water
Alt 1: 20-Year term, 3-yr employment guarantee	\$42,848,327	\$42,917,000	\$48,906,216
Alt 2: 20-Year term, 5-yr employment guarantee	\$42,848,327	\$43,017,000	\$48,906,216
Alt 3: 15-Year term, 3-yr employment guarantee	\$43,415,404	\$43,553,400	\$49,292,667
Alt 4: 15-Year term, 5-yr employment guarantee	\$43,415,404	\$44,003,700	\$49,292,667
Alt 5: 10-Year term, 3-yr employment guarantee	\$44,971,174	\$45,557,100	\$50,241,299
Alt 6: 10-Year term, 5-yr employment guarantee	\$44,971,174	\$46,157,000\$	50,241,299

Why Were Future Costs Unclear?

First, current public costs were not identified prior to the receipt of bids. Had they been calculated following, for example, the framework presented in section 3 above, not only would a clear baseline have been established against which future public and private costs could be compared, but perhaps more importantly, potentially avoidable costs elements would have been identified. Understanding whether such cost elements either are or are not included in each of the bids would have facilitated the calculation of residual public costs associated with each of these bids. As such, the SEC appeared unable to estimate residual public costs associated with the private bids, such as the costs of contract administration, one-time conversion costs, gain or loss on disposal or transfer of assets, and tax gains or losses. As stated above, the SEC also was unable to estimate the potential cost of cash flow deficits associated with the public bid.

Second, the RFP called for lump-sum cost estimates only plus descriptions of how each bidder would deal with a range of issues that might have an effect on their future costs and their ability to recover them under the terms of the contract (private provider) or MOU (employee bid). Clearly, the SEC suspected that at least one private bid would result in change orders and extra costs, but they appeared to have insufficient information to quantify such costs. For some cost elements, which at first glance one would assume would be uniform regardless of the bidder, the public and two private bids clearly estimated them differently (see next page):

Finally, the SEC did not appear to have sufficient information to estimate potential costs of certain exceptions and exclusions, future excess contract administration costs, one-time conversion costs, gains/losses from disposal or transfer of assets, tax advantages of private provision, or potential costs of contract termination. In one striking example, U.S. Filter did not appear to include the cost of back-ordered work, despite the fact that it was a required element in the S&WB RFP. When asked about this, according to the SEC, U.S. Filter estimated such work at \$1.5 million.^{vi} In comparison, United Water estimated the cost of back-ordered work to be \$2.5 million.

Costs Included in Alternative 1 Total Annual Fee	MCEC	U.S. Filter	United Water
Employee Benefits	\$5,047,518	\$6,212,90	\$6,736,158
Payment of Accrued Leave ^A	NA	\$352,500	\$186,700
OSHA Compliance ^B	NA	\$27,400	\$65,667
Insurance ^C	NA	\$4,381,600	\$1,061,009
Reimbursement of S&WB's Procurement Costs ^D	NA	\$339,800	\$180,000
^A Accrued leave only paid upon transfer from public to private employment. If public employees remain in public employment, leave will be protected and taken as an ongoing cost. ^B OSHA requires only private entities to comply with certain standards ^C The public operator would continue to be self-employed ^D Only private bidders were required to reimburse the public costs of procurement			

The SEC asserted that the MCEC bid assumed, but did not include in their annual fee, that the S&WB would invest \$3.8 million in new customer information and billing system. Yet, closer examination of projected MCEC cash flows demonstrates that indeed, all capital investments described in the MCEC bid were included in their projection of cash flow requirements and are, therefore, included in their annual costs as bid.

Conclusion

One can only speculate about why this cost comparison process left so many questions unanswered and, in the end, resulted in no recommendation by the SEC. At best, one might conclude that the RFP simply asked for costs and related information in a form that was inadequate to render an impartial decision based on future public versus private costs. No less than three subsequent and different estimates of current costs appeared to be politically as opposed to analytically driven, and so not surprisingly, they were used as instruments in lobbying efforts, creating widespread confusion. Given these observations, a cost comparison framework similar to the one described in this paper may well have helped the process in New Orleans come to a more definitive and rational conclusion.

Endnotes

ⁱ Executive Office of the President, Office of Management and Budget, Circular A-76, revised Supplemental Handbook: Performance of Commercial Activities, March 1996 as updated in June 1999.

ⁱⁱ Sewerage and Water Board of New Orleans, Request for Proposals for the Management, Operations and Maintenance of Water and Wastewater Systems, January 2, 2002.

ⁱⁱⁱ Report of the Proceedings of the Special Evaluation Committee, Evaluation of Proposals for the Management, Operation and Maintenance of Water and Wastewater Systems of Sewerage and Water Board of City of New Orleans, April 8 2002.

^{iv} The SEC noted that despite this oversight, all three cost proposals “appear to offer reductions in the operating costs of the System.” This statement appeared to have been based on the fact that the S&WB’s estimate of current costs was roughly \$50 million a year and despite estimates as high as \$70 million a year by at least one of the private bidders, an independent assessment of current costs prepared for the SEC came in at between \$49 and \$51 million a year.

^v This is the MCEC bid for a 20-year term with employment of current employees guaranteed for three years, which the SEC chose as the basis for comparison. The RFP called for six separate bids, one each for a 20-, 15-, and 10-year term and for each term, bids based on 3-year and 5-year guaranteed employment of current employees.

^{vi} Report of the Proceedings of the Special Evaluation Committee, Evaluation of Proposals for the Management, Operation and Maintenance of Water and Wastewater Systems of Sewerage and Water Board of City of New Orleans, April 8, 2002.

Appendix A: Cost Calculation Form

Public Sector Costs

	Year 1	Year 2	Year 3	Year 4	Year 5	Annually There After	Total
Personnel							
Direct Labor							
Incentive Pay							
Fringe Benefits							
Contract Labor							
Overhead & Business Support Services							
Operations Overhead							
General & Administrative Overhead							
Materials, Equipment, & Supplies							
Chemicals							
Materials, Tools, Equipment							
IT Equipment							
Spare Parts							
Office Supplies							
Utilities & Fuel							
Electric							
Gas							
Telephone							
Gasoline & Diesel							
Other							
Insurance							
Contract Services							
Miscellaneous							
TOTAL							

Appendix A: Cost Calculation Form

Private Contract Costs

	Year 1	Year 2	Year 3	Year 4	Year 5	Annually There After	Total
Contract Costs As-Bid							
Exemptions & Exclusions							
Contract Administration							
Conversion Costs							
Labor							
Security Clearance							
Contract/Lease Termination							
Transaction Costs							
Gain/Loss on Asset Disposal							
Tax Gains							
Income Losses							
Other Costs							
TOTAL							

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Northeast Ohio Regional Sewer
District, OH
- Donnie R. Wheeler, *Secretary*
Hampton Roads Sanitation District, VA
- Christopher Westhoff
City of Los Angeles Department of
Public Works, CA
- Stephen T. Hayashi
Union Sanitary District, CA
- Margaret Nellor
Sanitation Districts of Los Angeles
County Technical Services Dept., CA
- Stephen R. Pearlman
Metro Wastewater Reclamation
District, CO
- Jon G. Monson
City of Greeley Water and Sewer
Department, CO
- Billy G. Turner
Columbus Water Works, GA
- John C. Farnan
Metropolitan Water Reclamation District
of Greater Chicago, IL
- Harold J. Gorman
Sewerage & Water Board of New
Orleans, LA
- Marian Orfeo
Massachusetts Water Resources Authority
Finance Division, MA
- Dick Champion, Jr.
Independence Water Pollution Control
Department, MO
- Gurnie C. Gunter
Kansas City, MO, Water Department, MO
- Richard S. Seymour, Jr.
City of Nashua, Wastewater Treatment
Facility, NH
- Robert J. Davenport
Passaic Valley Sewerage
Commissioners, NJ
- Richard P. Tokarski
Rahway Valley Sewerage Authority, NJ
- Christopher O. Ward
NYC Department of Environmental
Protection, NY
- Mark A. Yeager
City of Albany, Oregon, OR
- William Gaffi
Clean Water Services, OR
- Kumar Kishinchand
Philadelphia Water Department, PA
- Ray T. Orvin, Jr.
Western Carolina Regional Sewer
Authority, SC
- Larry N. Patterson
Upper Trinity Regional Water
District, TX
- David Brosman
El Paso Water Utilities Public Service
Board, TX
- James T. Canaday
Alexandria Sanitation Authority, VA
- Donald Theiler
King County Department of Natural
Resources, WA
- Jon Schellpfeffer
Madison Metropolitan Sewerage District
Nine Springs Wastewater Treatment
Plant, WI
- Ken Kirk
Executive Director
- Paula Dannenfeldt
Deputy Executive Director

Association of Metropolitan Sewerage Agencies

Member Agencies

Anchorage Water & Wastewater Utility, AK	Encina Wastewater Authority, CA
Jefferson County Commission, AL	Fairfield-Suisun Sewer District, CA
Mobile Area Water & Sewer System, AL	Inland Empire Utilities Agency, CA
Montgomery Water Works & Sanitary Sewer Board, AL	Orange County Sanitation District, CA
City of Little Rock, Wastewater Utility, AR	Sacramento Regional County Sanitation District, CA
Pine Bluff Wastewater Utility, AR	San Bernardino Municipal Water Department, CA
City of Mesa – Water Division, AZ	Sanitation Districts of Los Angeles County Technical Services Department, CA
City of Phoenix Water Services Department, AZ	South Bayside System Authority, CA
Pima County Wastewater Management Department, AZ	South Orange County Wastewater Authority, CA
Central Contra Costa Sanitary District, CA	The City of Thousand Oaks Public Works Department, CA
City & County of San Francisco Public Utilities Commission, CA	Union Sanitary District, CA
City of Corona Utilities Department, CA	Vallejo Sanitation and Flood Control District, CA
City of Fresno Department of Public Utilities, CA	West County Wastewater District, CA
City of Los Angeles Department of Public Works, CA	Yucaipa Valley Water District, CA
City of Modesto, CA	Boxelder Sanitation District, CO
City of Oxnard, CA	City of Greeley Water and Sewer Department, CO
City of Palo Alto Regional Water Quality Control Plant, CA	City of Pueblo – Wastewater Department, CO
City of Riverside Water Reclamation Plant, CA	Colorado Springs Utilities Environmental Services, CO
City of Sacramento, CA	Littleton/Englewood Wastewater Treatment Plant, CO
City of San Diego Technical Services Division, CA	Metro Wastewater Reclamation District, CO
City of San Jose Environmental Services Department, CA	The Metropolitan District (Hartford County), CT
City of Santa Barbara, CA	DC Water & Sewer Authority, DC
City of Santa Cruz Wastewater Treatment Facility, CA	City of Wilmington Department of Public Works, DE
City of Stockton Department of Municipal Utilities, CA	Broward County Office of Environmental Services, FL
City of Sunnyvale Water Pollution Control Plant, CA	City of Altamonte Springs Public Works, FL
City of Vacaville, CA	City of Boca Raton Utility Services Department, FL
Delta Diablo Sanitation District, CA	City of Clearwater, FL
East Bay Municipal Utility District, CA	

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
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Utilities, VA
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Montgomery Water Works/Sanitary Sewer Board, AL	City of Thornton, CO
Regional Water Authority of Central Arkansas, AR	The Metropolitan District of Hartford County, CT
Beaver Water District, AR	South Central CT Regional Water Authority, CT
City of Chandler, AZ	DC Water & Sewer Authority, DC
City of Glendale, AZ	Wilmington Department of Public Works, DE
City of Mesa, AZ	City of Boca Raton – Utility Services Department, FL
Phoenix Water Services Department, AZ	Hernando County Utilities Department, FL
City of Scottsdale, Water Resources Department, AZ	Pinellas County Utilities, FL
Tempe Water Utilities Department, AZ	Tampa Bay Water, FL
Tucson Water, AZ	JEA, FL
City of Yuma, AZ	City of Lakeland, FL
Anaheim Public Utilities Department, CA	Miami-Dade Water & Sewer Department, FL
West Basin Municipal Water District, CA	Orange County Public Utilities Division, FL
Coachella Valley Water District, CA	Orlando Utilities Commission, FL
Contra Costa Water District, CA	Broward County Office of Environmental Services, FL
San Juan Water District, CA	City of St. Petersburg Water Treatment Plant, FL
City of Huntington Beach, CA	Tampa Water Department, FL
Helix Water District, CA	Palm Beach County Water Utilities Department, FL
Long Beach Water Department, CA	City of Atlanta Department of Water, GA
Metropolitan Water District of Southern California, CA	Augusta Utilities Department, GA
Los Angeles Department of Water & Power, CA	Columbus Water Works, GA
East Bay Municipal Utility District, CA	Macon Water Authority, GA
City of Riverside, CA	Cobb County-Marietta Water Authority, GA
City of Sacramento, CA	City of Savannah, Water & Sewer Bureau, GA
San Bernardino Municipal Water Department, CA	Hawaii County Department of Water Supply, HI
City of San Diego, CA	Honolulu Board of Water Supply, HI
San Francisco Public Utilities Commission, CA	Cedar Rapids Water Department, IA
Santa Clara Valley Water District, CA	Des Moines Water Works, IA
Sonoma County Water Agency, CA	
Aurora Utility Department, CO	
Colorado Springs Utilities, CO	

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 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 www.amwa.net.



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>.



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