

# **Privatization of Water and Wastewater Systems in New Orleans:**

**BGR Analysis of Sewerage & Water  
Board of New Orleans Proposal**

**JUNE 15, 2001**





# Privatization of Water and Wastewater Systems in New Orleans:

## BGR Analysis of Sewerage & Water Board of New Orleans Proposal

### BGR Project Staff

Janet R. Howard, *President & CEO*  
Patricia E. Morris, *Director of Research*  
Jon A. Eckert, *Research Analyst*  
Amy T. Pease, *Publications*  
Catherine C. Sheets, *Executive Assistant*

### Project Consultants

Infrastructure Management Group, Inc.

### Acknowledgments

BGR gratefully acknowledges the individuals, foundations, organizations and corporations whose financial support made this report possible. The findings, conclusions and recommendations in this report are those of BGR, and do not necessarily reflect the views of its financial supporters.

BGR greatly appreciates the assistance and cooperation of the staff of the Sewerage & Water Board, who responded to numerous requests for information and interviews.

The full report including this Executive Summary is available on BGR's website or by calling or faxing the numbers below



225 Baronne Street, Suite 610  
New Orleans, LA 70112-1704  
Phone 504-525-4152  
Fax 504-525-4153  
[www.bgr.org](http://www.bgr.org)

### BGR Board of Directors

Anne M. Milling, *Chairman*  
Louis M. Freeman, *Vice Chairman*  
Herschel L. Abbott, Jr., *Secretary*  
David Guidry, *Treasurer*  
Mike Ballases  
Terrel J. Broussard  
Robert W. Brown  
Bertel Dejoie  
Patricia Denechaud  
Jean C. Felts  
Norma L. Freiberg  
Dr. Brenda G. Hatfield  
Russell S. Hoadley  
George D. Hopkins, Jr.  
Jan S. Jobe  
Betty V. Lauricella  
Ti A. Martin  
Carolyn W. McLellan  
Ralph R. Miller  
Daniel F. Packer  
Roger W. Peck  
Sharon A. Perlis, Esq.  
R. Hunter Pierson, Jr.  
Robert D. Reily  
Dionne M. Rousseau  
Lynes R. Poco Sloss  
Roderick K. West  
Leonard Vance Wormser  
Mary K. Zervigon

### BGR Sewerage & Water Board Privatization Committee

Herschel L. Abbott, Jr., *Chair*  
Mary K. Zervigon, *Vice-Chair*  
Terrel J. Broussard  
Jan S. Jobe  
Carolyn W. McLellan  
R. Hunter Pierson, Jr.  
Lynes R. Poco Sloss  
Leonard V. Wormser  
Anne M. Milling, *ex officio*  
Louis M. Freeman, *ex officio*

# Table of Contents

## I. EXECUTIVE SUMMARY

A. Introduction	1
B. Methodology	2
C. Background	3
D. Summary of Findings	4
E. Factors that Discourage Competition	5
F. Scope of Work	10
G. Reengineering vs. Managed Competition	10
H. Public Access to Documents and Meetings	13
I. Dangling Issues	14
J. Recommendations	14
A Note on Methodology	19

## II. ANALYSIS OF THE PROCUREMENT PROCESS ..... 20

A. SCOPE OF PRIVATIZATION .....	20
1. Splitting the Procurement .....	20
2. Expanding the Procurement .....	21
B. COMPETITION .....	22
1. Impact of Scope on Competition .....	22
2. The Procurement Process .....	23
3. Minimum Qualifications .....	29
C. CONTRACT TERMS .....	30
1. Provisions That Can Increase Costs .....	30
2. Other Key Issues .....	32
DANGLING ISSUES .....	38
Pension Issues .....	39
Civil Service Commission .....	39
Public Bid Law .....	40

## III. HOW BEST TO REDUCE COSTS AND IMPROVE SERVICES ..... 42

THE S&WB .....	42
CHALLENGES FACING THE S&WB .....	42
1. Technical .....	43
2. Financial .....	45
3. Governance .....	47
C. REENGINEERING .....	50
1. What is Reengineering? .....	50
2. Potential for Improvement .....	52
3. Experience of Other Jurisdictions .....	60
4. Anticipated Savings for New Orleans .....	62
5. Obstacles to Achieving Savings at S&WB .....	62

BGR

D. COMPETITION ..... 63

- 1. What is Competition? ..... 63
- 2. What Opportunities Does Private Contracting Offer? ..... 63
- 3. Experience of Other Jurisdictions ..... 65
- 4. Anticipated Savings for New Orleans ..... 68
- 5. S&WB Experience with Contracting Out ..... 69
- 6. Obstacles to Achieving Full Benefits ..... 70
- 7. Public Records and Bid Laws ..... 72

E. MEASURING WHAT MIGHT BE ACHIEVED ..... 73

- 1. Options Presented to S&WB ..... 73
- 2. Financial Analysis of Options ..... 74
- 3. Results of Analysis ..... 82

RECOMMENDATIONS ..... 86

**APPENDICES**

- A Representative Evaluation Criteria and Processes
- B Excerpt from Milwaukee RFP
- C Protocols and Sample Scorecard
- D S&WB Special Evaluation Committee
- E Procurement Process Matrix, Selected Representative Projects
- F Contract Comparison Matrix
- G Key Project Features: Summary Matrix
- H Case Studies

# **I. EXECUTIVE SUMMARY**

## **A. Introduction**

In April 1999 the Sewerage & Water Board of New Orleans ( S&WB ), faced with the cost of significant capital improvements and attendant rate increases, authorized a team of financial advisors to review options for mitigating rate increases. Included in the mandate was a direction to consider all available options for private sector participation.

In October 1999 the S&WB s Financial Advisor (a group consisting of Verner, Liipfert, Bernhard, McPherson and Hand, Chartered; Camp Dresser & McKee, Inc.; Deloitte & Touche, LLP; and Essential Environmental Engineering, Inc.) recommended that the S&WB pursue a procurement for private management, operations and maintenance. They estimated that in the absence of significant savings from privatization, sewer rate increases of 38.8% and water rate increases of 44.7% might be necessary before 2003. They indicated that the sewer rate increases might be reduced to a number between 12.4% and 25.6%, and water rate increases to a number between 13.4% and 29.1%, if operating costs could be reduced by 20 to 40%.

In February 2001 the S&WB released (but did not formally issue) a draft Request for Qualifications/Request for Proposals ( RFQ/RFP ) soliciting proposals for each of two scopes of service: the management only, or the management, operations and maintenance, of the water and wastewater systems. The solicitation is in the form of a managed competition, meaning that both private firms and the employees of the S&WB are invited to submit proposals.

The proposed procurement includes the sewer collection system, the water distribution system, all treatment plants, billing, collection, meter reading, maintenance, etc. It does not include the drainage system and power plant or capital repairs and improvements for which the cost of materials exceeds \$10,000.

The procurement is the largest water/wastewater privatization in the United States, with a term of 10 to 20 years and an estimated value of \$1 billion. While there have been larger water system privatizations and larger sewer system privatizations, there has been none combining large water and wastewater systems.

Initially the S&WB allowed a 10-day period for the public to read, absorb, evaluate and comment on the massive procurement documents. Responding to public pressure, it extended the comment period by approximately four months to June 15, 2001. The S&WB expects to act on the matter on June 27, 2001. The current schedule calls for the issuance of the RFQ/RFP by July 9, 2001, the submission of technical and price proposals by August 29, the issuance of an amended RFP based on bidder input by

## BGR

October 31, the receipt of best and final offers by November 26, and the selection of a contractor on December 12, 2001. (See S&WB Timetable on page 24.)

Given the scope of the proposed privatization and its implications for all citizens, BGR concluded that an independent analysis of the process and documentation was critical. As BGR stated in its 1990 study of *Private Contracts for Public Business*, contracting for public services engages the intersection of money, power, jobs, profits and political influence. Sometimes these factors can obscure the public good.

In this study BGR addresses two basic questions:

- (1) Is the S&WB's proposed procurement structured in a way that maximizes competition and otherwise protects the interests of the citizens of New Orleans?
- (2) Is the proposed privatization the best way for the S&WB to meet its financial challenges and improve services?

## **B. Methodology**

To assist it in preparing an impartial evaluation of the proposed managed competition, BGR, using a competitive selection process, hired Infrastructure Management Group, Inc. ( IMG ), a Bethesda, Maryland consulting firm with experience in water/wastewater operations and privatizations. BGR asked IMG to do the following:

- (1) analyze the S&WB's and prepare its own financial analyses, baselines and projections;
- (2) determine whether privatization offered benefits that could not realistically be obtained through reengineering;
- (3) review the terms of the RFQ/RFP to determine their impact on competition, to identify potential problems, and to propose alternative approaches and solutions; and
- (4) provide information on comparable transactions.

BGR used the analysis and information provided by IMG as the basis for this report. It relied upon and synthesized IMG's analysis and information with observations and information that BGR has collected during years of monitoring the S&WB and in the course of preparing reports, including BGR's April 2000 report on S&WB privatization. For certain key legal issues, namely the applicability of the sunshine and public records law to the procurement process and of the public records and bid laws after privatization, BGR relied on a legal analysis prepared by the law firm of Correro Fishman Haygood Phelps Walmsley & Casteix, L.L.P.

## **C. Background**

### **I. Description of S&WB**

The S&WB is an independent agency, established by the State, that provides water, sewer and a portion of drainage services to the City. The S&WB operates two water purification plants (with a combined treatment capacity of 270 million gallons per day [MGD]) and two wastewater treatment facilities (with a combined peak capacity of 162 MGD) located on both the east and west banks of the Mississippi River. It has 83 sewerage-pumping stations and 22 drainage-pumping stations, 1500 miles of gravity sewer pipes, 1600 miles of water distribution and transmission pipes, and 260 miles of open and covered canals. The S&WB also operates an electrical generation system that provides power to the water treatment plants and 15 of 22 pumping stations.

The S&WB's total operating budget for 2001 is \$100 million. Of that amount, \$81 million relates to the sewer and water systems; a smaller portion \$62.5 million represents services included in the competition. The S&WB employs approximately 1,250 people; employee-related costs account for approximately 49% of the operating budget.

### **2. Multiple Challenges Facing the SWB**

The S&WB faces the following serious challenges:

*Operational challenges* stem from the need to maintain and repair an aged system buried in unstable soil and construct major treatment plant improvements to comply with increasingly tighter water and wastewater permit standards.

*Financial challenges* stem primarily from the diminishing availability of grant funds, the historic lack of sufficient rate increases, and a federally enforceable Consent Decree with the Environmental Protection Agency ( EPA ), signed in 1998 and imposing a strict timetable for the execution of sewer system repairs estimated at approximately \$455 million over the next ten years. IMG estimates that the S&WB's water and sewer systems will require approximately \$1.3 billion in capital improvements over the next 20 years.

*Governance challenges* stem from S&WB's lack of true independence. The Board is too closely entwined with City government. All of its members are either elected City officials or appointed by the Mayor. Elected officials dominate the S&WB's committee leadership. The Mayor is the president of the Board and the chairman of the Drainage Committee. Councilmen-at-large chair the Water & Sewer and the Finance Committees. In addition, the S&WB's flexibility is limited by the authority of the Civil Service Commission of the City of New Orleans ( CSC ). The CSC's rules and regulations have the force of law and govern such matters as job classifications and assignments, as well as salaries and benefits. The S&WB's composition, its committee structure and other crossed lines of authority handicap the S&WB's decision-making and implementation,



particularly in the areas of rate setting, construction contracting and employee management.

## **D. Summary of Findings**

In order to determine whether privatization offers the best solution to the S&WB's financial problems, IMG assessed the potential financial impact of managed competition and of reengineering<sup>1</sup> on the S&WB. The study results indicate that, while there is a potential for significant cost reductions under either scenario, managed competition is likely to produce lower costs and smaller rate increases. The study further indicates that the S&WB's governance problems, if unremedied, would eventually undermine any reengineering effort and diminish the benefits of managed competition.

The fact that privatization could result in savings for the S&WB does not necessarily mean that the proposed privatization should be pursued in its present form. In view of the monumental size and the length of the contract, BGR believes that the proposed managed competition should be undertaken only if it is designed to maximize fully cost reductions and other benefits to the public. Maximum benefit to the public will be realized only if the following occur:

- the scope of the procurement is properly defined,
- the process and terms promote competition,
- the contract is properly constructed,
- an effective oversight program is established, and
- the procurement is part of a larger program that includes reengineering of services not included in the competition.

Unfortunately, the proposed procurement has serious shortcomings that could, individually and in the aggregate, seriously impact competition and the ultimate cost to the S&WB's ratepayers. Thus, while BGR applauds the S&WB's initiative in undertaking a broad performance improvement initiative, it believes that the most serious deficiencies, particularly those relating to the selection process, must be addressed before the proposed procurement proceeds.

The more noteworthy of these deficiencies include:

- ambiguous selection criteria and lack of protocols,

---

<sup>1</sup> Reengineering would involve an internal process of rethinking and radically redesigning business processes, management systems and structures in order to achieve dramatic improvements in critical areas of performance. A managed competition would result in either (i) an outsourcing of the tasks within the scope of the RFQ/RFP to a private company, or (ii) the operation of the S&WB by its employees pursuant to the terms of a memorandum of understanding.

## BGR

- a requirement for firm bids at an inappropriate point in the process,
- unnecessary complexity in the bid requirements,
- inadequate time for due diligence, and
- contract provisions that perpetuate the role of political influence in the subcontracting process.

These issues are discussed beginning at page 6 in this Executive Summary and more fully in the body of the report. BGR's recommendations for addressing these deficiencies are found on pages 14 to 17.

## **E. Factors That Discourage Competition**

### **1. Less-than-Optimal Bidder Interest**

A contract of the size proposed by the S&WB should be attracting major interest from bidders. Apparently it is not. The S&WB reports that only three private sector companies—United Water Resources, USFilter and Operations Management International, Inc.—have conducted on-site due diligence to date. On the date of the issuance of this report (June 15, 2001), 10 of the 12 weeks allowed for such due diligence have expired.

A number of factors might be discouraging participation. One factor is New Orleans reputation for patronage and influence peddling. That reputation creates a challenge for outsourcings of the scope contemplated by the S&WB. Given the time and expense involved in preparing a bid (over \$1 million), potential bidders might well be dissuaded from entering the fray where certain bidders are rumored (correctly or not) to have a done deal or the right, politically connected partners. Overcoming the reputation and creating the necessary competitive environment require proactive measures, like the recommendations at the end of this Executive Summary.

As noted above, a number of aspects of the procurement process itself could be dampening interest in the proposed privatization. The most troubling of these is the lack of transparency and clarity in the evaluation process. This issue and others are described below.

### **2. Ambiguous Selection Criteria and Lack of Protocols**

Evaluation of proposals must be fair, rigorous and transparent. Uncertainty or ambiguity in the evaluation process and scoring translates to risk for bidders, who compensate by charging a risk premium in their bids or, worse, by avoiding the competition altogether. Lack of clarity can diminish bidder interest and competition and increase the likelihood of undue influence, political patronage and bid protests. (See

Appendix A for discussions of criteria used by nine cities and Appendix B for an excerpt from Milwaukee's RFP.)

The draft RFQ/RFP contemplates that the SEC will evaluate initial (and, if applicable, best and final) Management, Operations and Maintenance proposals in accordance with five criteria: cost effectiveness, technical approach, quality of management team, disadvantaged business enterprise plans and employee relations and transition plan. Slightly different criteria are provided for in the Management Only proposals. The draft RFQ/RFP expands somewhat on the general criteria. However, refinement and development of more specific evaluation criteria are at the discretion of the SEC after qualified respondents have been determined.

The draft RFQ/RFP does not assign weights or maximum points to the five criteria. Nor does it include protocols and adequate selection guidelines. No criteria whatsoever are specified for the Board's selection decision (as distinct from the SEC's recommendation to the Board), and no protocols to guide the evaluation are specified for either the SEC or the Board. (See Appendix C for a sample scorecard and protocols designed by IMG.)

BGR believes that the absence of rigorous, detailed instructions for protocols and scoring in the evaluation process, the lack of criteria that the Board will use in making its decision, and the ability of the SEC to modify criteria after the issuance of the RFP are serious problems. Ultimately these factors negatively impact the price of water and wastewater services for the citizens of New Orleans.

### **3. Firm Bids, Complicated Requirements and Inadequate Time**

A number of other aspects of the procurement process are likely to dampen interest and competition. In order to understand them, some background on the procurement process itself is needed.

#### **a. The S&WB's Bid Process**

The draft RFQ/RFP requires bidders to prepare and submit proposals for two different scopes of service: Management Only and Management, Operations and Maintenance. For each scope of service, the bidder must submit pricing for 10-year, 15-year and 20-year contracts. In addition, the bidder must submit for each of these scenarios prices based on employee retention commitments for 5, 7 and 10 years. Bidders have the option of submitting innovative and alternative approaches, involving modifications to the contract and different pricing structures.

Under the current timetable (see page 24), bidders are given the opportunity to tour facilities and to review documents from April 9 to June 15, 2001, and from July 9 to July 25, 2001. The Board will issue an RFQ/RFP on July 9. Proposers must by August 29 submit a Statement of Qualifications, a draft proposal (including prices), and any comments on the RFP.

A Special Evaluation Committee ( SEC ), nominated by the Mayor and appointed by the S&WB ( see Appendix D), will evaluate, and the S&WB will approve, qualified respondents on a pass-fail basis. The SEC will meet with qualified bidders and invite them to discuss revisions to the RFP. Thereafter, the S&WB can accept one of the draft proposals or amend the RFP. If the RFP is amended, a final RFP will be issued to qualified respondents by October 31 and bidders will submit best and final offers by November 26. The SEC will evaluate the proposals and submit three to the Board. The Board has the option of selecting a contractor, postponing the selection or terminating the procurement.

## **b. Troubling Provisions**

The procurement process is oddly structured in several respects. First, it requires bidders to submit proposals and prices based on documents that can subsequently be amended. Although the matter is not free from doubt, due to contradictory provisions in the draft RFQ/RFP, the S&WB's Financial Advisor has indicated that the S&WB intends for the bids to be binding. This procedure is contrary to the recommendations of the Financial Advisor, who had recommended issuing a draft RFP and negotiating with qualified bidders before issuing a final one. Requiring firm bids while the status of the procurement is unsettled is likely to impact pricing negatively and could act as a deterrent to bidding.

Second, the procurement is unnecessarily complicated in that it requires bidders to make offers on 18 different scenarios. The request should be simplified. The S&WB's Financial Advisor recommended that the Management Only option be abandoned because it would not produce savings of the same magnitude as a procurement for the Management, Operations and Maintenance. This change alone would eliminate the need for nine pricings.

Third, under the current schedule, 10 of the 12 weeks allowed for due diligence will have elapsed before the RFQ/RFP is formally issued. This could dampen interest in the transaction, since it requires proposers to invest substantial time and money before the S&WB has officially initiated the procurement process.

The treatment of due diligence in the procurement process is important. Preparing firm bids for a transaction of the contemplated scope and complexity requires in-depth investigation. Inadequate review and preparation time translates into a higher risk premium. The period of 12 weeks for proposers to review the S&WB's records and visit its facilities would be adequate if it came after the issuance of the RFQ/RFP. As the schedule is now, neither the amount of time allocated to each bidder for visits to facilities, nor the period for the preparation of binding bids after the actual issuance of the RFP, is adequate.

The current schedule allows only 10-11 days for review by the SEC of initial and, if applicable, best and final offers. This period is inadequate for the type of detailed evaluation that a procurement of this scope warrants.

#### **4. Limited Solicitation of Interest**

The S&WB has posted the draft RFQ/RFP on its own website and published notice in *Engineering News* and *The Times-Picayune*. Since there is a limited universe of bidders capable of serving as a primary contractor on a privatization of the proposed scope, the S&WB could seek additional competition by sending a solicitation of interest letter to bidders. Given that much of the time allocated for due diligence has passed, sending such a letter would be meaningful only if the timetable were readjusted to allow for review by bidders that respond to the solicitation letter.

#### **5. Inadequate Disclosures**

The minimum qualifications criteria included in the draft RFQ/RFP are generally reasonable and appropriate, given the scale of the S&WB's water and wastewater facilities, the size of the customer base and the magnitude of the performance and financial obligations that a private operator would be expected to assume. The required disclosures are inadequate, however, in several respects.

One requirement is that bidders must demonstrate that none of their officers or affiliates has been convicted of fraud in domestic jurisdictions. The requirement should be expanded to cover fraud in foreign jurisdictions. The omission of foreign jurisdictions could be significant since the list of eligible bidders includes large, multinational companies.

The bidder certification forms do not adequately address arrangements that could reflect negatively on the integrity of the selection process. For example, they do not require the disclosure of agreements, understandings and arrangements between the proposer and persons who might be able to influence the process. Nor do they require the disclosure of payments, loans, equity participations, gifts and contributions (including campaign contributions) by the proposers and members of their team to the Mayor, members of the City Council, members of the SEC, members of the S&WB, and the S&WB's employees and consultants.

#### **6. Contract Provisions**

The contracts are generally comprehensive, and most provisions are reasonable, standard and current in the industry and fair to both the contractor and the S&WB. There are, however, a number of unusual provisions and potentially costly ambiguities and complexities. These are discussed below. Other aspects of the contract, including risk allocation, pricing and suggested changes, are discussed in the body of this report.

##### **a. S&WB Approval of Professional Services Subcontracts**

As noted previously, the governance problems that could undermine reengineering have the potential to limit the benefits of privatization. The S&WB seems determined to convert this potential into reality. It has incorporated into the draft contract a provision

giving the S&WB the right to approve all subcontractors for professional services. Such contracts are currently exempt from the public bid laws. Hence they provide a significant patronage opportunity.

By including the provision requiring contract approval, the S&WB has defeated one of the primary reasons for privatization: to achieve efficiency gains by removing political influence from the contracting processes. The provision has the potential to undermine significantly the ability of the contractor to negotiate contracts for the best value in supplies and services. Thus, it can seriously dampen competitive interest and impact price.

#### **b. Potential for Undue Influence in DBE Subcontracting**

The S&WB has incorporated into the draft contracts the following minimum requirements for participation by disadvantaged business enterprises (DBEs): 35% for professional contracts, 34% for construction contracts and 13% for supplies and nonprofessional services. The provisions set forth in the contracts for identifying DBEs and monitoring the contractor's compliance provide the S&WB with an opportunity to exert undue influence in the subcontracting process. The potential for abuse should be addressed through appropriate contractual provisions.

#### **c. Ambiguous Responsibilities for Repairs and Replacements**

The current contract contains a complex set of provisions dealing with repairs and capital projects. Basically the contractor is obligated to perform and pay for capital repairs and replacements when the cost of materials is \$10,000 (adjusted for inflation) or less. In the case of a capital repair or replacement for which the cost of materials exceeds that threshold, the S&WB can elect to perform the repair itself, through a third party or through the contractor. The company is responsible for the first \$10,000 of costs for such repairs. If the S&WB decides in its sole discretion that a capital project will be performed by the contractor, the funding terms for the project will be agreed upon by the S&WB and the contractor.

Ambiguities are inherent in the proposed division of responsibilities. For example, issues arise as to whether multiple repairs within a certain distance should be treated as individual repairs or aggregated. This can affect who bears the responsibility and cost for the repair.

#### **d. Ambiguous Liabilities: Drainage and Streets**

The Management, Operations and Maintenance (O&M) Agreement is silent with respect to the division of responsibilities and liabilities with respect to streets (e.g., under what circumstances each of the City, the S&WB and the contractor is responsible for costs of repairing a street). In addition, the agreement is unclear as to whether the S&WB or the contractor will have to pay for capital repairs and replacements necessitated by problems with the drainage system (e.g., damage to a water pipe caused by the impact

of subsidence on a drainage pipe). Lack of clarity on these points could cause disputes in the future.

## **F. Scope of Work**

A threshold question in evaluating the proposed procurement is whether the scope has been defined in a way that maximizes potential savings. The procurement could be split into smaller components on geographic, systemic or functional bases. Alternatively, it could be expanded to include the drainage and power systems and all or part of the Facility Management Division.

The S&WB s defined scope of work for the procurement appears fundamentally sound. However, it would be advisable to include in the scope all parts of the Facility Management Division that relate to the water and wastewater systems. The Facility Management Division handles plant and mechanical maintenance.

## **G. Reengineering vs. Managed Competition**

BGR asked IMG to analyze whether managed competition is the best approach to reducing costs and improving service. In particular, it asked IMG to consider whether cost reductions and service improvements comparable to those expected from privatization could be achieved through reengineering and to analyze the potential for improvements under managed competition.

### **I. Potential for Improvement Through Reengineering**

In order to evaluate the potential for cost reductions through reengineering, IMG reviewed the experiences of other utilities that have undertaken reengineering. The results of reengineering have varied depending upon whether or not they were taken in response to a genuine competitive threat. Where reengineering has been undertaken apart from a competitive threat, utilities have achieved reductions in operations and maintenance costs in the range of 10 to 15%. In the case of reengineerings in response to a competitive threat, the upper end of the range has been pushed to 55%, with median savings of 20% implemented over a three-to-six-year period. (See Table 8 on page 58.)

IMG looked specifically at the S&WB to get a sense of the extent to which the S&WB could benefit from reengineering. Staffing at S&WB has declined 23% over the last five years, reducing operating costs substantially. Although this progress is commendable, IMG s review of the Water Purification Division and the reengineering effort currently under way in the Networks Division indicated that, despite the attrition, there is still room for significant reductions in personnel. This possibility is important to a reengineering effort, since payroll-related costs account for approximately 49% of S&WB s costs in the water and wastewater departments.

In addition, a broad-stroke comparison of S&WB against best industry practices showed that aside from the restructuring of the S&WB's Networks Division, some efforts implemented as part of the wastewater treatment contracting, and the implementation of selected performance measures by two departments, the S&WB has apparently adopted only a few of the action items typically associated with best industry management practices. This record suggests that there is room for achieving the efficiencies that would normally come from the application of such practices.

Based on the experience of other utilities and observations of the S&WB, IMG estimated that reengineering has the potential to reduce the operating costs for the water and wastewater systems by approximately 15% over a five-year period. This is below the observed median to reflect the S&WB's serious obstacles, which include under-investment in equipment modernization and labor saving technology, a culture of contentment, cumbersome civil service rules and S&WB's governance problems.

## **2. Potential for Improvement Through Managed Competition**

To evaluate managed competition, IMG collected available information on the results of managed competitions in which employee groups have won the procurement, managed competitions in which private companies have won and competitions restricted to private vendors. The experience of other cities indicates that there is a significant potential for savings through managed competition.

A word of caution is in order with respect to any attempts to estimate savings based on the experience of others. The potential for savings is heavily dependent on the conditions and circumstances that affect a specific utility operation (e.g., level of staffing at the beginning of the competition, facility technology, relationships with governmental entities), as well as the terms and conditions imposed upon a contractor (particularly those regarding retention of employees). The order of magnitude of savings achieved by one utility cannot automatically be assumed to be realizable by others.

### **a. Potential Savings from Managed Competition**

Since employees have won managed competitions in only a few instances, little data are available for that procurement outcome. Those available include Charlotte, NC (22% as reported by the City of Charlotte; 36% as reported by the S&WB's Financial Advisor), Jefferson Parish, LA (18%) and Birmingham, AL (6%). The available information is insufficient to support an assumption with respect to reduced operating costs.

In the case of private vendors, savings ranged from 10% to 43%, with a median savings of 29%, achieved in the first year. IMG assumed a reduction in operating costs for the S&WB equal to the calculated median.



## **b. Potential Rate Impacts**

Using the potential percentage savings identified above (15% for reengineering and 29% for contracting out), IMG projected the potential rate impacts from the various scenarios. It began by calculating a baseline rate projection based on current conditions. It then prepared projections, using the projected percentage reductions in operating costs cited above, for reengineering and privatization. The projections showed that reengineering could result in a 14% reduction from the baseline average annual rate increase, and a private vendor operation could result in a 36% reduction.

Rate increases will be necessary over the next 20 years for sewer and wastewater in any case. The following average annual rate increases over a 20-year period are projected for the various scenarios and blended for the water and sewer divisions: 3.5% for the baseline scenario, 3.0% for reengineering and 2.3% for private operation.

## **c. Obstacles to Realizing the Benefits of Managed Competition**

*Governance Problems.* Just as S&WB's governance problems can thwart reengineering efforts, they can limit the benefits of privatization. To the extent that the S&WB inserts itself into the contractor's operations (as with the requirement for S&WB approval of professional services subcontracts), the risk of increased prices and diminished efficiency increases.

*Weak Contract Oversight.* Moreover, the benefits of privatization will not be fully realized unless the S&WB develops a strong contract management program. Such programs include the establishment of an extensive computerized performance measurement system; a strong management information and reporting system; initial, routine and unscheduled audits; incentives and penalties; and most importantly, a strong, well-funded oversight unit, protected from political interference. Such a program is critical for the S&WB.

*Change Orders.* The benefits of privatization can also be negatively impacted through change orders increasing prices. Change orders can be minimized, but not eliminated, by well-drafted contracts and by strong oversight.

## **d. Advantages of Private Vendor Contracting**

Contracting with a private entity is perceived as having certain advantages over reengineering or other arrangements with employees. Privatization can provide a vehicle to overcome some of the roadblocks that stand in the way of effective reengineering.

*Removal of Political Influence.* In a properly constructed privatization, contracting processes can be isolated from political influence. Once facility operation is turned over to the private contractor, the presumption is that the contractor's bottom-line profit

motive will drive it to select the best cost-to-quality balance in letting specialty subcontracts.

*Greater Staffing Flexibility.* By eliminating cumbersome civil service rules, contracting with a private entity provides the flexibility to cut staff and assign personnel to suit the operational needs of the enterprise. Flexibility in employment decisions could have a significant positive impact for the S&WB, since the number of employees is unusually high when compared to other utilities. [See Table 10, on page 65.]

*Enforceable Contracts.* Contracts with private entities are enforceable and can provide significant protections, such as performance bonds, letters of credit and corporate guarantees. Agreements with employees, on the other hand, are more in the nature of guidelines or memoranda of understanding. They lack a mechanism for enforcement, other than the threat of termination of the arrangement.

## **H. Public Access to Documents and Meetings**

The Louisiana Open Meetings Law (Sunshine Law) and Public Records Act apply to this procurement as follows:

- meetings of the S&WB and SEC relative to the proposals and evaluation must be conducted in public, subject to limited exceptions; and
- with the limited exception of tax returns, all the proposal documents and related documents such as evaluation sheets are likely to be public records subject to inspection.

The extent to which the S&WB intends to conduct the procurement in public meetings is unclear. The S&WB's Financial Advisor recommended that all meetings of the SEC concerning development of the RFP and all aspects of evaluation of proposals remain confidential until completion of the processes. (Financial Advisor Management, Operations and Maintenance Procurement Plan, Section 5.3, May 12, 2000.) A representative of the S&WB has stated in a public meeting that the meetings of the SEC will not be open. The RFP itself is silent with regard to the SEC's meeting procedures.

The S&WB and SEC could attempt to conduct closed meetings by relying on an exception that allows private discussions of the professional competence of a person. This exception does not apply if the person in question requires that the discussion be held at an open meeting.

The draft RFQ/RFP recognizes the public nature of documents that are part of the responses to the RFQ/RFP. The draft RFQ/RFP does not discuss whether other documents and records generated in the procurement process, including those related to the SEC's evaluation and ranking, will be treated as public records and made available for public inspection.

## **I. Dangling Issues**

The following issues relating to the procurement must be resolved before the issuance of the RFQ/RFP:

*Pension Issues.* Under the terms of the proposed O&M Agreement, approximately 830 employees would be transferred to the private operator. This transfer could impact both the pension benefits of the transferred employees and the costs of funding and administering the S&WB's existing plan. How pension matters will be handled, and the financial impact on the plan and employees, are matters that should be addressed promptly.

*Role of the Civil Service Commission.* The CSC claims considerable power over privatizing or restructuring the S&WB. Although CSC rules provide that no proposal to privatize shall be binding or effective until approved by the CSC, the S&WB's procurement makes no mention of such authority or approval. It merely contains a condition precedent that the CSC shall have approved the compensation and benefit package for transferred employees. The CSC has already filed suit asserting its approval authority. The matter is a cloud over the procurement and should be resolved before the S&WB issues the RFQ/RFP.

*Possible Conflict with Public Bid Laws.* Some terms of the proposed O&M Agreement raise issues under Louisiana's public bid laws. For example, a provision requiring the contractor to implement all maintenance and all repairs and replacements, other than those exceeding \$10,000 (excluding labor costs), appears to conflict with a law requiring that maintenance, repair and construction contracts costing more than \$10,000 (including labor costs) be awarded by the S&WB to the lowest bidder. Provisions for the performance by the contractor of future construction projects mutually agreed to by the S&WB and the contractor also raise issues under the bid laws. The legality of these and other provisions in the contract under the public bid law should be resolved before the S&WB issues the RFQ/RFP.

## **J. Recommendations**

BGR's recommendations are intended to optimize savings for the ratepayers of New Orleans, attract bidders to the proposed procurement, and preserve improvements after a contract has been signed.

### **Ensure Fair Evaluations**

1. *Provide for Fairness and Transparency.* Include in the RFQ/RFP maximum points for each evaluation criterion and rigorous protocols for the qualification process and for the evaluation of bids by both the SEC and the S&WB. Clarify that the evaluation criteria (including points) apply to the S&WB as well as the SEC.

## BGR

Eliminate the SEC's ability to modify the evaluation criteria after the RFQ/RFP has been issued.

2. *Allow Adequate Evaluation Time.* Increase the time for review of proposals by the SEC from 10-11 days to three weeks. This procurement is too complex and important to hasten the process unnecessarily.
3. *Prepare a Written Record.* The SEC and the S&WB should prepare a written record of decision for the procurement process.

## **Ensure Integrity of Procurement Process and Contract**

4. *Require Binding Proposals Only After the Final RFP.* Modify the order of steps in the procurement process so that bidders initially submit statements of qualifications and comments on the proposed RFP and contract. Only after qualified bidders are identified and procurement documents finalized should vendors submit binding proposals.
5. *Eliminate S&WB's Right to Approve Subcontracts.* Eliminate from the proposed forms of contract the S&WB's right to approve professional subcontracts.
6. *Allow DBE Flexibility.* Give the contractor the right to contract with any qualified DBE, without interference from the S&WB.
7. *Prohibit Contacts with the SEC.* Amend the RFQ/RFP to prohibit contacts between the proposers and members of the SEC.
8. *Provide Public Access to Proceedings and Records.* Clearly state in the RFQ/RFP that all meetings of the S&WB and the SEC, including any portions of meetings where the professional competence of a person is to be discussed, will be open to the public. To further ensure that the legal exception for meetings to discuss the competence of a person is not invoked, add to the proposal forms an irrevocable requirement by the proposer that such discussion be conducted in public. Clearly state that all documents submitted by a bidder and all documents generated by the SEC or the S&WB in connection with the procurement will be made available for public review, unless the S&WB is specifically prohibited by law from releasing a particular document.
9. *Avoid Appearance of Conflicts.* Because of the appearance of conflict of interest arising out of a joint venture with a subsidiary of a potential bidder, have Camp Dresser & McKee recuse themselves from participating in the proposal evaluation. State the recusal in the bid document.
10. *Protect Access to Public Records.* Include in the contract a requirement that the contractor make available to the public, records and documents relating to the

## BGR

S&WB, including, without limitation, subcontracts, invoices and records relating to the performance of services by the contractor and its subcontractors.

11. *Require Additional Disclosures.* Modify the disclosure form to require disclosure of the following:
  - convictions for fraudulent activities in foreign as well as domestic jurisdictions;
  - all agreements, understandings and arrangements between any of (i) the proposers and their subcontractors, team members and affiliates and (ii) individuals or businesses, relating to the proposed transaction, including without limitation, agreements, understandings and arrangements for direct or indirect payments, loans, gifts, equity participations, contributions, compensation, the expectation of business or any other thing of value; and
  - all payments, loans, gifts, equity participations, compensation and other contributions (including campaign contributions), direct and indirect, by any of the proposers, their subcontractors, team members, or any of their affiliates to the Mayor, members of the City Council, members of the SEC, members of the S&WB, S&WB employees and consultants or their affiliates. An affiliate is an immediate family member or a business or entity in which a person owns an interest in excess of 25% or otherwise has a substantial economic interest.
12. *Restructure Procurement If Necessary.* Discontinue and restructure the procurement if fewer than three qualified bidders, exclusive of the S&WB s employees, submit initial proposals. Fewer than three bidders would suggest the procurement needs restructuring to attract more competition.
13. *Actively Solicit Competition.* Send a solicitation of interest letter to the known universe of bidders capable of serving as a primary contractor for the proposed privatization. To make the solicitation meaningful, provide for a full due diligence period after it is sent.

## **Reduce Burdens on Bid Preparation**

14. *Reduce Bid Options.* Simplify the bid process by eliminating the requirements for Management Only bids. This option is much less likely to yield significant savings than the Management, Operations and Maintenance option and unnecessarily increases the burden on potential competitors in preparing bids.
15. *Reduce Bid Options.* Simplify the bid process by deciding on the retention requirements for employees before issuing the RFP rather than requiring

alternative proposals. Clearly, longer retention periods reduce savings. The S&WB should decide upfront on the optimal balance of financial and community obligations and reduce the burden on potential competitors in preparing proposals.

16. *Allow Adequate Proposal and Due Diligence Time.* Allow a period of three months after the issuance of the RFP for bidders to prepare proposals. At a minimum, double the length of the visits to facilities for individual bidders. Because the facilities and services are extensive and complex, bidders need adequate time to become comfortable with the systems in order to reduce risk premiums and to prepare informed proposals.

## **Capture Performance Improvements**

17. *Provide for Contract Oversight.* Establish a strong contract oversight program, with adequate funding, technology and staffing, free from political interference. This is essential to ensure that cost savings and performance improvements are durable.
18. *Aggressively Pursue Reengineering.* After the competition, significant operating responsibilities, amounting to approximately \$38 million, remain with the S&WB. The S&WB must aggressively pursue cost reductions and performance improvements for these services, regardless of whether it contracts with the employee team or with a private vendor.
19. *Aggressively Seek to Reduce Capital Improvement Costs.* Because capital improvements represent such a huge area of expense, the S&WB should actively pursue implementing programs and delivery methods to reduce costs of such improvements.

## **Ensure Optimal Scope of Work**

20. *Expand Scope.* Expand the scope of the competition to include all parts of the Facility Management Division that serve the water or wastewater divisions. Including additional functions would increase the potential for savings.

## **Resolve Unaddressed Issues**

21. *Clarify Civil Service Commission Authority.* Clarify the powers of the Civil Service Commission with respect to the procurement before the RFQ/RFP is issued.
22. *Clarify Applicability of Public Bid Laws.* Before the RFQ/RFP is issued, carefully review the terms of the proposed O&M Agreement for compliance with the public bid law and make all necessary amendments to bring the proposed contracts into compliance with such law.

23. *Clarify Liabilities Relating to Streets and Damage from Drainage.* Clarify in the O&M Agreement which entity is responsible for damage to the water and wastewater systems caused by the drainage system, street failure or street repair. The division of responsibilities with respect to streets (e.g., under what circumstances each of the City, the S&WB and the contractor is responsible for costs of repairing a street) should be clarified in a tri-partite agreement among the City, the S&WB and the contractor.

## **A Note on Methodology**

As noted above, to assist it in preparing an impartial evaluation of the proposed managed competition, BGR hired Infrastructure Management Group, Inc., ( IMG ). In performing its analysis, IMG undertook a wide range of tasks that comprise elements of a management audit, reengineering study, privatization feasibility analysis, strategic plan, and peer review of the managed competition. In order to meet the S&WB s deadline for comments, the work had to be accomplished in a very short four-week period. Therefore, in preparing the report, IMG relied extensively on readily available information and its professional judgment. It did not have the opportunity to verify the accuracy or reliability of data supplied to it or obtained independently through IMG s efforts.

Although IMG attempted to consider all relevant documents, data and facts, the magnitude and complexity of performing these tasks within such a short period means that certain material information and facts may have been omitted. Furthermore, IMG made various assumptions with respect to conditions, events, and circumstances that may occur in the future. The methodologies used in performing the analyses follow generally accepted practices for the preparation of such assumptions. While IMG believes the assumptions are reasonable and methodologies valid, actual results may vary from those presented herein, and the variations may be material.



## **II. ANALYSIS OF THE PROCUREMENT PROCESS**

In view of the monumental size and length of the contract, BGR believes that the proposed managed competition should be undertaken only if it is designed to maximize fully cost reductions and other benefits to the public. Maximum benefits to the public will be fully realized only if (i) the scope of the procurement process is properly defined, (ii) the procurement process encourages competition, (iii) the contract is properly constructed, (iv) the S&WB establishes a strong oversight program, and (v) the procurement is part of a larger program that includes reengineering of services not included in the competition.

### **A. Scope of Privatization**

One issue worthy of consideration is whether the proposed privatization's scope has been defined in a way that maximizes potential savings. This involves two inquiries: (i) whether the outsourcing should be split into two or more separate components, and (ii) whether additional components should be added.

#### **I. Splitting the Procurement**

The proposed procurement could be split into smaller components on three bases: geographically, systemically (water distribution and treatment separated from wastewater collection and treatment) or functionally. Functional splits would include separation of treatment plant operations (with water and wastewater together or separate); field operations (water and wastewater together or separate); and meter reading, billing and revenue collection.

A geographic split is an option, since the East Bank and West Bank systems generally are not interconnected. If done properly, a geographic split could provide some leverage to the S&WB through performance comparisons between contractors. However, the value of such comparisons would be limited by the significant differences in size, age and capital investment requirements for the two systems. Such a split would introduce new inefficiencies by necessitating decentralization of some functions, (*e.g.*, a separate yard for field operations, *i.e.*, networks) and separate billing and revenue collection operations.

A systemic split would split the procurement into two parts: one for water and one for wastewater. It would not significantly affect the universe of potential bidders.

A functional split would allow specialty contractors to propose on specific functions rather than as part of a vendor team proposing on a single all-encompassing contract. For example, firms specializing in meter reading or bill collection would bid directly against, and be evaluated against, others specializing in those areas. A balkanized

procurement process would seem to play into, rather than correct, S&WB's weaknesses in the governance and management areas.

The advantages of multiple outsourcings include a potential for increased competition and greater local participation. In addition, depending on how facilities and services are split, the S&WB could exert leverage over the contractor with the implicit threat that a nearby competitor could assume the services of an under-performing contractor.

Despite the theoretical advantages of splitting the procurement, the S&WB's decision to include water and wastewater treatment, water distribution and wastewater collection in the contract appears to be sound. Breaking up the contract would reduce the economies of scale, create difficult coordination problems, exacerbate current contracting inefficiencies, invite political meddling as more contracts are let to local firms, and reduce accountability to the public.

## **2. Expanding the Procurement**

### **a. Drainage & Power Systems**

The S&WB is proposing to transfer most of the functions related to the daily operations of its water and wastewater systems. An obvious question is whether the drainage system and the power system, which serves the drainage, sewer and water systems, should also be transferred.

Separating drainage from sewer and water will create some coordination and liability issues similar to those now encountered by the S&WB and City with respect to subsurface repairs in the streets. Although it would be desirable to eliminate these problems, the transfer of drainage is neither practicable nor desirable. The operation and maintenance of the drainage system and the power plants supporting them are integral to protecting New Orleans from flooding. Finding a vendor to assume this extraordinary liability would be difficult and, in any case, the price would include a significant risk premium. Liabilities and services like this are usually more efficiently insured by the public sector. The S&WB's decision to exclude this system from privatization is well founded.

### **b. Facility Maintenance Department**

Another area that deserves further consideration is the treatment of the Facility Maintenance Department. It is unclear from the various documents what functions, positions and facilities are intended to be outsourced.

The treatment of this section for the procurement is complicated by a number of factors, including the fact that some of the equipment is used to service all divisions. Some equipment and personnel will be needed to continue servicing the power and drainage divisions. However, it is desirable to transfer as much of this system as is related to the water and wastewater systems. If the department, or a significant part of it, is not transferred, the staff and equipment will constitute a significant stranded cost.

## **B. Competition**

To the extent that the process is subjected to political influence, the benefits of contracting may be diminished or destroyed. While competition might not ensure that the benefits of contracting will occur, lack of competition ensures that they will not.

A contract of the size proposed by the S&WB should be attracting major interest from bidders. Apparently it is not. The S&WB reports that only three companies – United Water Resources(UW), USFilter and Operations Management International, Inc. – have conducted on-site due diligence. Ten of the 12 weeks allowed for such due diligence have already expired.

A number of factors might be discouraging participation. Among these is New Orleans unfortunate reputation for patronage and influence peddling. To state it bluntly, New Orleans is not renowned for its commitment to competitive processes. Exacerbating the problem are the rumors associated with this particular transaction. Given the time and expense needed to prepare a bid, potential bidders might be dissuaded from entering the fray where certain parties are rumored (rightly or wrongly) to have a done deal or the right, politically connected partners.

New Orleans reputation creates a challenge for privatizations of the scope contemplated by the S&WB. Approaches used in relatively straightforward good government jurisdictions might not be adequate in the more byzantine local environment. Creating the necessary competition requires more aggressive measures than are the norm. See Appendix E for information on the procurement processes of other utilities.

In this section, BGR reviews the process, criteria and terms of the RFQ/RFP to determine whether they foster competition. In addition, it suggests terms that might give potential bidders increased comfort with respect to the integrity of the process. Specifically, BGR considers the following:

- whether the scope of the privatization negatively impacts the potential for competition;
- whether the process set forth in the RFQ/RFP fosters competition;
- whether the qualification criteria unnecessarily restrict the universe of bidders.

### **I. Impact of Scope on Competition**

The proposed privatization would be the largest combined water/wastewater procurement ever in the United States. While there have been larger water system privatizations and larger sewer system privatizations, there has been none combining large water and wastewater systems.

## BGR

There are 14 major players in the United States and abroad, and two smaller regional companies, that could operate a system the size of New Orleans water/wastewater system. They are: American Water Works Company, Inc., Azurix Corporation, Dragados Group, Earth Tech, Inc., Montgomery Watson, Inc., Nuon Water, Ogden Water Systems (recently renamed Covanta Water Systems), Operations Management International, Inc., Saur Group, Severn Trent Environmental Services, Thames Water Plc, United Water Resources (recently renamed Odeco), USFilter, and US Water L.L.C. The two regional companies are ECO Resources, Inc. and Environmental Management Corporation. This pool of potential operators is sufficiently large for a system of this size. Thus, the scope of the procurement should not in and of itself unduly restrict competition.

## **2. The Procurement Process**

The S&WB has prepared and made available for public comment a draft combined RFQ/RFP with draft contracts. It plans to issue an RFQ/RFP on July 9, 2001.

The draft RFQ/RFP requires bidders to prepare and submit proposals for two different scopes of service: Management Only and Management, Operations and Maintenance. For each scope of service, the bidder must submit pricing for 10- year, 15- year and 20- year contracts. In addition, the bidder must submit for each of these scenarios prices based on employee retention commitments for 5, 7 and 10 years. Bidders have the option of submitting innovative and alternative approaches, involving modifications to the contract and different pricing structure.

Under the current timetable, bidders are given the opportunity to tour facilities and to review documents from April 9 to June 15, 2001, and from July 9 to July 25, 2001. The Board will issue an RFQ/RFP on July 9. Statements of Qualification, draft proposals (including prices), and any comments on the RFP are due on August 29, 2001. The full schedule is in Table 1.

**Table 1  
S&WB Timetable for Procurement**

<b>Event</b>	<b>Date</b>	<b>Number of Days After Issuance of RFQ/RFP</b>
Board Meeting to Consider Amendments to RFQ/RFP	April 3, 2001	-
Tours of Facilities and Access to Document Room	April 9 – June 15, 2001	-
Public Comments on RFQ/RFP, if any, Filed with Board	June 1-15, 2001	-
Board Reviews Public Comments, Authorizes Changes, if any, to RFQ/RFP and Authorizes Issuance of RFP	June 27, 2001	-
Issuance of RFQ/RFP	July 9, 2001	-
Pre-Proposal Conference	July 13, 2001	4
Access to the Facilities and Submissions of Written Questions to Board	July 9-25, 2001	16
Board Consideration of Questions, Issuance of Addenda (Written Answers to Questions)	August 1-10, 2001	32
Statement of Qualifications and Response to RFP Due	August 29, 2001	51
SEC Evaluates Statement of Qualifications	September 6-7, 2001	60
Board Selects Qualified Respondents	September 12, 2001	65
Qualified Respondents Meetings, Public Comments Received and Reviewed and Board Consideration of RFP and Contract Revisions	September 17- October 24, 2001	107
Board Authorizes Issuance of RFP, with Addenda	October 31, 2001	114
Issuance of RFP, with Addenda	November 7, 2001	121
Best and final Proposals Due	November 26, 2001	140
Presentation by Respondents of Final Proposals to Special Evaluation Committee	November 30, 2001	144
Special Evaluation Committee consideration and submission of top three proposals to the Board	December 6-7, 2001	151
Selection of Contractor	December 12, 2001	156
Contract Date	December 19, 2001	163
Target Commencement Date	January 21, 2002	196

Under the proposed procedure, proposers must submit a statement of qualifications, a draft proposal (which includes prices) and comments in response to the RFQ/RFP to be issued by the Board on July 9. A Special Evaluation Committee (the SEC), nominated by the Mayor and appointed by the S&WB, will evaluate, and the S&WB will approve, qualified respondents on a pass-fail basis. The SEC will meet with qualified bidders and invite them to discuss revisions to the RFP. (For members of the SEC, see Appendix D.) Thereafter, the S&WB can accept one of the draft proposals or amend the RFP. If the RFP is amended, a final RFP and associated documents will be issued to qualified respondents by October 31 and bidders will submit best and final offers by November 26. The SEC will evaluate the proposals and submit three proposals to the

Board. The Board has the option of selecting a contractor, postponing the selection, or terminating the procurement.

A number of aspects of the procurement process individually or collectively could negatively impact competition or otherwise diminish the benefits to the public. The most serious of these are the selection criteria and protocols.

### **a. Selection Criteria and Protocols**

Evaluation of proposals must be fair, rigorous and transparent. Uncertainty or ambiguity in the evaluation process and scoring translates to risk for bidders, who compensate by charging a risk premium in their bids or, worse, by avoiding the competition altogether. Lack of clarity can diminish bidder interest and competition and increase the likelihood of undue influence, political patronage and bid protests. (See Appendix A for discussions of criteria used by nine cities and Appendix B for an excerpt from Milwaukee's RFP.)

The RFP contemplates that the SEC will evaluate initial (and, if applicable, best and final) Management, Operations and Management proposals in accordance with criteria set forth in Section 7.3 and 7.4 of the RFP. Those sections indicate that the SEC will consider cost effectiveness, technical approach, quality of management team, disadvantaged business enterprise plans, employee relations and transition plan. Slightly different criteria are set forth for Management Only proposals. The draft RFQ/RFP expands somewhat on these criteria. However, refinement and development of more specific evaluation criteria is left to the discretion of the SEC after qualified respondents are determined.

The draft RFQ/RFP does not assign weights or maximum points to the five criteria. Nor does it include protocols and adequate selection guidelines in the RFP. No criteria whatsoever are specified for the Board's selection process, and no protocols to guide the evaluation are specified for either the SEC or the Board. (See Appendix C for a sample scorecard and protocols designed by IMG.)

BGR believes that the absence of rigorous, detailed instructions for protocols and scoring in the evaluation process, the lack of detailed criteria for the SW&B, and the ability of the SEC to modify criteria after the issuance of the RFP are serious problems. Lack of clarity and process can diminish bidder interest and competition and increase the likelihood of undue influence, political patronage and bid protests. Ultimately these factors negatively impact the price of water and wastewater services for the citizens of New Orleans.

The need for guidelines is especially important in the present case, where there is suspicion surrounding the fairness of the process. Accordingly, BGR recommends that the RFP be amended to include in the RFQ/RFP maximum points for each evaluation criterion, to provide for rigorous protocols for the qualification process and the evaluation of bids by both the SEC and the S&WB, and to clarify that the evaluation

criteria (including points) and protocols apply to the Board as well as the SEC. The ability of the SEC to modify criteria should be eliminated.

### **b. Premature Firm Offers**

The procurement is oddly structured in that it appears to require bidders to submit proposals and prices based on documents that can subsequently be amended. Requiring firm bids while the status of the procurement is unsettled is likely to negatively impact pricing and could act as a deterrent to bidding.

BGR notes that there is some confusion with respect to the effect of the initial proposals submitted by proposers. Although the proposals are called draft proposals in Section 4.1.4 of the RFP, under Section 4.2.1 they appear to be binding. That section states that no priced proposal may be modified or withdrawn by any Qualified Respondent without S&WB consent for a 365 day period. The confusion is compounded by Section 4.1.6, which states that a final RFP will be issued to each bidder, and Section 4.1.7, which refers to the submission of final proposals. These sections suggest that best and final offers will be received, regardless of whether the RFP is amended. BGR understands from the S&WB's Financial Advisor that the S&WB intends for the draft proposals to be binding, despite the initial recommendation of the Financial Advisor in their Management Operations and Maintenance Procurement Plan, May 12, 2000.

### **c. Overcomplication**

The procurement is unnecessarily complicated in that it requires bidders to make offers on 18 different scenarios: Management Only and Management, Operations and Maintenance, each with proposals for 10, 15 and 20 years, and each of these with commitments to retain employees for periods of 5, 7 and 10 years. The S&WB's Financial Advisor recommended that the Management Only option be abandoned because it would not produce savings of the same magnitude as a procurement for management, operations and maintenance. This change alone would eliminate the need for nine pricings. To reduce the burden on bidders and attract more competition, the S&WB should select a retention option before issuing the RFQ/RFP.

### **d. Timing of Due Diligence**

Another odd aspect of the procurement is the timing of due diligence. The current procedure calls for tours of facilities and access to the document room in a ten-week period that antedates the issuance of the RFQ/RFP. After the issuance of the RFQ/RFP, only two weeks are allowed for due diligence. As a practical matter, potential bidders must perform most of their due diligence before the RFQ/RFP is formally issued. This could dampen interest in the transaction, since the S&WB at that point has not even officially initiated the procurement process or decided on the qualification requirements. Thus, a bidder could invest its resources in due diligence only to find that it is disqualified by changes in the qualification criteria.

**e. Adequacy of Review and Preparation Time for Proposers**

Preparing bids for a transaction of the contemplated scope and complexity requires in-depth investigation. Inadequate review and preparation time translates into a higher risk premium. The period of 12 weeks for proposers to review the S&WB's records and visit its facilities would be adequate if it were scheduled after the issuance of the RFQ/RFP. As the schedule stands now, neither the amount of time allocated to each bidder for facility tours, nor the period for the preparation of binding bids after the actual issuance of the RFP, is adequate.

The RFP provides for proposers to spend one day sequentially in each of the water and wastewater treatment facilities, up to one half-day each in each of the four raw water pump stations, up to one half-day at the Central Yard, up to one day in the St. Joseph Street building (exclusive of the Document Room), and up to two days at requested wastewater pumping stations. It would be advisable to at least double the inspection time.

It would be desirable to schedule after the issuance of the RFP a period long enough for the preparation of high-quality proposals. It would also be desirable to expand the period between the issuance of the Final RFP and the due date for binding bids from six weeks to at least three months.

**f. Adequacy of Review Periods for SEC**

The current schedule allows only 10-11 days for review of initial and, if applicable, best and final offers by the SEC. This period is inadequate for the type of detailed evaluation that a procurement of this scope warrants. BGR recommends extending the SEC's review period to three weeks.

**g. Prohibited Contacts**

All proposers are prohibited from contacting the Board, the Board's employees, and consultants or attorneys for the Board on any matter relating to the RFQ/RFP other than as contemplated therein. Any and all contacts with such persons associated with the Board must be made through the executive counsel to the Mayor.

The draft RFQ/RFP should be amended to prohibit contact with the members of the Special Evaluation Committee. It should also be amended to permit contact between respondents and one or two leaders of the employee team, e.g., John Wilson and Marcia St. Martin.



## **h. Advertisement**

The SWB has posted the draft RFQ/RFP on the web and published notice in *Engineering News* and *The Times-Picayune*. According to the SWB spokesperson, the SWB did not contact potential bidders, for fear of tainting the process.

Giving notice through a solicitation of interest letter would not taint the process; having notice spread by word of mouth through direct and indirect contacts could very well have that effect. Since there is a limited universe of bidders that can serve as the primary contractor on a privatization of the scope proposed, BGR recommends that such bidders be sent a solicitation of interest letter. A good faith attempt to identify and contact all of them should be sufficient to allay criticism if someone is inadvertently overlooked.

Given that much of the time allocated for due diligence has passed, sending a solicitation of interest letter will be meaningful only if the timetable is readjusted to allow for review by bidders who respond to the solicitation letter. BGR recommends such an adjustment.

## **i. Public Access to Documents and Meetings**

Under the Louisiana Open Meetings Law (Sunshine Law) and Public Records Act, (i) meetings of the S&WB and SEC relative to the proposals and evaluation must be conducted in public, subject to limited exceptions; and (ii) with the limited exception of tax returns, all the proposal documents and related documents, such as evaluation sheets, are likely to be public records subject to inspection.

The extent to which the S&WB intends to conduct the procurement in public meetings is unclear. The S&WB's Financial Advisors recommended that all meetings of the SEC concerning development of the RFP and all aspects of evaluation of proposals remain confidential until completion of the processes. (Financial Advisor Management, Operations and Maintenance Procurement Plan, Section 5.3, May, 2000.) A representative of the S&WB has stated in a public meeting that the meetings of the SEC will not be open. The RFP itself is silent with regard to the SEC's meeting procedures.

The S&WB and SEC could attempt to conduct closed meetings by relying on an exception that allows private discussions of the professional competence of a person. The exception does not apply if the person in question requires that the discussion be held at an open meeting.

The draft RFQ/RFP recognizes the public nature of documents that are part of the responses to the RFQ/RFP. The draft RFQ/RFP does not discuss whether other documents generated in the procurement process, including those related to the SEC's evaluation and ranking, will be treated as public records and made available for public inspection.

The S&WB could do much to promote confidence in its process on the part of the public and potential proposers by clearly indicating that the public will be given access to the records generated and meetings held by the SEC and the S&WB during the procurement process.

### **3. Minimum Qualifications**

The minimum qualifications criteria included in the draft RFQ/RFP are generally reasonable and appropriate, given the scale of the S&WB's water and wastewater facilities, the size of the customer base, and the magnitude of the performance and financial obligations that a private operator would be expected to assume. They are not so restrictive that they will limit artificially the number of potential bidders or favor those who qualify. The potential impact of some of the criteria, and suggested changes, are discussed below.

#### **a. Minimum Equity**

Although the RFQ/RFP states that the qualification process is pass/fail and sets forth a minimum equity test, it requires the submission of additional information unrelated to the documentation of the bidders' minimum equity level. This raises a question as to whether information disclosed in the financial information could disqualify a bidder that met the specific minimum equity test. If other thresholds or conditions can override the minimum equity requirement or otherwise affect the financial evaluation, the Minimum Qualifications Criteria should clearly stipulate.

#### **b. Additional Disclosures**

The Minimum Qualifications Criteria in the draft RFQ/RFP require the proposers to demonstrate that none of their officers or affiliates has been convicted of fraud in domestic jurisdictions. The criteria should be expanded to cover fraud in foreign jurisdictions as well. The omission of foreign jurisdictions could be significant since the list of eligible bidders includes large, multinational companies.

The disclosure form should be amended to require the disclosure of payments, loans, gifts, equity participations, compensation and contributions (including campaign contributions) by the proposers, their subcontractors, team members or affiliates to the Mayor, members of the City Council, members of the SEC, members of the S&WB, the S&WB's employees and consultants and any of their affiliates. Affiliates includes immediate family members and any business or entity in which a person owns an interest in excess of 25% or otherwise has a substantial interest.

The disclosure form should be expanded to include the disclosure of all agreements, understandings and arrangements between (i) any of the proposers, their subcontractors, team members and affiliates and (ii) individuals or businesses, relating to the proposed transaction, including without limitation agreements, understandings and arrangements relating to payments, loans, gifts, equity participations, compensation, the expectation of business, or anything of value.

The State Ethics Code (which covers, among others, all state and local elected officials and all appointed members of state and local boards, as well as state and local government employees) prohibits a public servant (including local elected officials and appointed members of state and local boards) from soliciting or accepting anything of value (other than meals) from a person with whom he or she has official dealings.

### **c. Supporting Documents**

Since the O&M Agreement calls for a letter of credit, the S&WB should require that each proposer submit a signed statement from a substantial U. S. financial institution indicating its willingness to issue an irrevocable letter of credit on behalf of the proposer.

## **C. Contract Terms**

Specific contract issues including the length of the contract, risk allocation, incentive payments, and the relationship between repairs and capital improvements are addressed in this section. References in this section are to the O&M Agreement. Provisions specific to other draft agreements are discussed in later sections. See Appendix F for a comparison of the S&WB s contract terms with those of four other cities.

### **I. Provisions That Can Increase Costs**

IMG concluded that the contracts are for the most part comprehensive, and most provisions are reasonable, standard and current in the industry and fair to both the contractor and the S&WB. However, a number of the provisions are unusual or ambiguous and have the potential to increase the price to the S&WB. These are discussed below.

#### **a. S&WB Approval of Professional Services Subcontracts**

The requirement for S&WB approval of all professional services contracts is unique in the privatization arena and particularly troubling. It has the potential to undermine significantly the ability of the contractor to negotiate and contract for the best value services. It serves no apparent purpose other than the preservation of existing patronage opportunities. The inclusion of this provision defeats one of the primary reasons for privatization: to achieve efficiency gains by removing political influence from the contracting process. The provisions has the potential to undermine significantly the ability of the contractor to negotiate contracts for the best value in supplies and services. Thus, it can seriously dampen competitor interest and impact price.

## **b. Potential for Undue Influence in DBE Subcontracting**

The S&WB has incorporated into the contract the following minimum requirements for participation by disadvantaged business enterprises (DBEs): 35% for professional contracts, 34% for construction contracts and 13% for supplies and nonprofessional services. The provisions set forth in the contracts for identifying DBEs and monitoring the contractor's compliance can provide the S&WB with an opportunity to exert undue influence in the subcontracting process. The potential for abuse should be addressed through appropriate contractual provisions.

## **c. Maintenance vs. Capital**

Responsibility for maintenance or capital expenditures is typically the most difficult and complex issue to address in contract operations. The challenge is to provide incentives for the contractor to perform adequate routine, predictive and preventive maintenance in a cost effective way. If the contractor's price includes too much maintenance, the S&WB pays more. If the contractor's price or actual services performed include too little, capital expenditures (though deferred) can increase, and the S&WB still pays more. No contract has yet been developed that resolves perfectly all issues.

The draft O&M Agreement contains a complex set of provisions dealing with maintenance, repairs and capital projects. Basically the contractor is obligated to perform and pay for all maintenance and for capital repairs and replacements when the cost of materials is \$10,000 (adjusted for inflation) or less. In the case of a capital repair or replacement for which the cost of materials exceeds that threshold, the S&WB can elect to perform the repair itself, through a third party or through the contractor. The contractor is responsible for the first \$10,000 of costs for such repairs. If the S&WB decides in its sole discretion that a capital project will be performed by the contractor, the funding terms for the project will be agreed upon by the S&WB and the contractor.

Ambiguities are inherent in the proposed division of responsibilities. For example, issues arise as to whether multiple repairs within a certain distance should be treated as individual repairs or aggregated. This can affect who bears the responsibility and cost for the repair.

The arrangement in the O&M Agreement is similar the arrangement used in Milwaukee, where it has reportedly worked well. The Milwaukee contract gave 46 examples of potentially ambiguous maintenance and capital activities to clarify cost responsibility. The examples were refined during parallel negotiations by in-house and private vendor management and legal teams working together. The O&M Agreement has only 15 examples in Schedule 10. The schedule would benefit from more examples and, after each example, references to relevant contract provisions and detailed explanations of rationale.

There appear to be three errors in Schedule 10. In item 3, the total cost should be \$11,000; in item 9, the last sentence should read prevent rather than provide concrete deterioration ; and in item 11, either the calculation must be changed or the preamble to

the Schedule discussing obsolete equipment must be clarified because it appears that the contractor should be paying \$10,000, not \$25,000.

One alternative to the current contract is to establish an upper limit maintenance budget, exclusive of labor. Under such an arrangement, costs for major maintenance, as well as normal maintenance expenditures in excess of the upper limit, remain a risk for the S&WB. Conversely, if normal maintenance costs are below the ceiling, the contract requires that any unexpended maintenance funds be returned 100 percent to S&WB. This is to discourage any tendency the contractor may have to reduce maintenance in an effort to gain additional profit. The contractor is required to submit an annual maintenance budget and repair/replacement plan with periodic updates. S&WB would monitor adherence to the budget and plans.

#### **d. Ambiguous Liabilities: Drainage and Streets.**

The O&M Agreement clearly indicates that the S&WB retains responsibility for the drainage system. Nonetheless, the contractor could incur drainage related expenses through Section 4.07 of the agreement. Basically, that section provides that the contractor is responsible for capital repairs and replacements below a \$10,000 threshold. Such repairs could be necessitated by problems with the drainage system, e.g., damage to a water pipe caused by the impact of subsidence on a drainage pipe. In that case, the liability for costs would more appropriately be placed with the SWB or the City (depending on which entity was responsible for the drain pipe in question).

The agreement should be amended to clarify which entity is responsible for damage to the water and wastewater system caused by the drainage system, street failure or street repair. The division of responsibilities with respect to streets (e.g., under what circumstances are the City, the S&WB and the contractor responsible for costs of repairing a street) should be clarified in a tripartite agreement among the City, the S&WB and the contractor.

## **2. Other Key Issues**

This section contains a discussion of other key issues affecting the benefits of managed competition.

### **a. Term of Contract**

The S&WB is seeking proposals for 10-, 15-, and 20-year terms. Some agencies favor contracts no longer than ten years, believing that more savings can be accrued over a 20 year term if a new 10-year contract is competitively bid upon expiration of the initial contract. Although this argument has merit, the magnitude of necessary investment in operating improvements at S&WB probably warrants a term longer than ten years. The need to amortize investments over 20 years and the related risk of not recouping that investment if the contract is terminated earlier is properly addressed in the S&WB's proposed operating agreement through the payment of liquidated damages under certain conditions.

If maximizing immediate savings is a primary goal, the S&WB could require only the 20-year option. There is enough empirical data to demonstrate greater immediate savings with longer term fixed-price contracts. Concern over the S&WB being locked into a long term contract is mitigated by the current O&M Agreement s provision for termination for convenience.

**b. Risk Allocation**

In general, financial risk should be allocated to the party that can best control it. Where the risk is not controllable, the risk should theoretically be allocated to the party that can most efficiently insure against or manage the risk. Private entities are generally reluctant to assume risks outside their control in facilities dedicated to providing municipal services under an essentially fixed-price contract, even with compensation through a risk premium for acting like an insurance company. Therefore, uncontrollable risks typically remain the liability of the public agency.

The typical risk allocation and risk mitigation techniques are illustrated in Table 2.

**Table 2  
Risk Allocation and Mitigation Techniques**

<b>Entity</b>	<b><u>CONTRACTOR</u></b>	<b><u>PUBLIC OWNER</u></b>
<b>Risk Allocation</b>	<b>Smaller risks with larger probabilities</b>	<b>Larger risks with smaller probabilities</b>
<b>Example</b>	<ul style="list-style-type: none"> <li>▪ Utility / chemical costs</li> <li>▪ Products – liability and market risks</li> <li>▪ Performance / compliance</li> <li>▪ Labor strike</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pre-existing conditions</li> <li>▪ Uncontrollable circumstances</li> <li>▪ Changes in law</li> </ul>
<b>Risk Mitigation</b>	<ul style="list-style-type: none"> <li>▪ Liquidated damages (if terminated for convenience)</li> <li>▪ Force majeure clause</li> <li>▪ Change in law protection</li> <li>▪ Insurance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bid bond</li> <li>▪ Performance bond</li> <li>▪ Parent guarantee</li> <li>▪ Insurance (property, workers compensation, comprehensive general liability, environmental liability)</li> </ul>

Source: Infrastructure Management Group, Inc.

An uncontrollable circumstance generally entitles a contractor to schedule and price relief. In some cases a minor level of cost sharing for uncontrollable circumstances is obtained from the contractor for the purpose of giving the contractor a financial stake in helping to prevent or mitigate the event. The rationale for this approach is that, were the contractor to bear such risk fully, it would have to include a considerable risk premium

in the annual service fee. To the extent an uncontrollable circumstance results in cost savings, the majority of the savings should accrue to the S&WB.

The current contract seems to provide for a fair balance in risk allocation, although as noted below, the risk for unit price changes in electricity and other pass-through expenses could be allocated to the contractor.

### **c. Payments, Adjustments and Incentives**

The contract provides for a base fee, subject to adjustment on various bases, and incentives. IMG's observations are as follows:

#### **Adjustment Due to Capital Projects and Uncontrollable Circumstances**

Under Section 10.04(a), the contractor cannot earn any margin or profit on any fee increase resulting from capital projects and/or uncontrollable circumstances. Under Section 10.04(b), it is unclear whether the clause "taking into account the factor for profit to the contractor allocable to the amount of such reduction in cost" means that the fee reduction will include or exclude the contractor's profit margin on direct cost savings. If the subtraction includes the contractor's profit (*i.e.*, base fee minus the sum of direct cost savings and contractor profit), then provisions (a) and (b) are unbalanced.

#### **Escalation Index**

The contract provides for an inflation adjustment based on the Consumer Price Index. Some agencies prefer to select an index more specific to the nature of the services (*e.g.*, Producer's Price Index, Energy Index). However, the use of these formulas can introduce unnecessary complications and impose a false precision.

There appears to be a typographical error in the definition of  $CPI_{N-1}$ ; it should perhaps read "Value of CPI on December 31 of Year $_{N-1}$ ".

Because the inflation adjustment is only 90% of CPI, a portion of this exogenous risk is assumed by the contractor. While this is not uncommon, IMG typically advises clients to include full CPI in the inflator. The motivation for competition is not to save on inflation. Furthermore, to compensate for the assumption of risk, bidders must include a premium in their bids. Though the risk of deflation is minor, the formula should also include a floor to limit the decrease in the annual fee.

#### **Incentive Arrangements**

Several changes to the incentive provisions would provide greater motivation. The penalties/bonuses provision in the O&M Agreement is heavily weighted toward penalties, with only a few performance factors for bonuses (and that is only \$5,000/month—a small incentive on a deal of the proposed size) listed in Schedule 18. The S&WB should consider raising this bonus payment and revisiting performance standards to determine whether any other standards may merit incentive payments.

The proposed formula for sharing savings resulting from company initiated capital investments is 80% to the S&WB and 20% to the contractor. A split closer to 50-50 *after* the S&WB's financing costs are netted out would be a greater incentive/bonus for the contractor to be creative.

### **Schedule 13 Pass-Through Costs**

The primary pass-through costs are for certain utilities and chemicals, transportation and disposal of sludge, capital cost for installing meters, and credit for years of service (pass-through for private company but not employee team) if and when a transferred employee takes time off for accrued annual leave, sick leave or compensatory time during the initial three years of the agreement. Pass-through costs raise two main issues: (1) whether risk is allocated efficiently, and (2) whether employees and private vendors are treated evenly during proposal evaluations and thereafter.

With regard to risk allocation, there appear to be more pass-through expenses in the O&M Agreement than in any of the other contracts reviewed. However, the other contracts commonly pass through unit prices for electricity, which probably has the largest potential impact on fees. The S&WB should ensure that pass-through expenses are reasonable in terms of quantity, unit price, and quality and should revisit whether some portion of electricity unit pricing risk could be allocated to the contractor. Such determinations are based largely on professional judgment but may also be analyzed quantitatively, for example, by projecting unit cost ranges and estimating the percentage accuracy.

With regard to fair treatment of employees and private vendors, private vendors appear to be shielded from increases in unit costs, yet employees are not (although Schedules 13 and 14 to the O&M Agreement are not entirely clear). Although the employee team should certainly receive the same consideration if they win, the cost proposals probably do not require an adjustment for this difference. However, costs for transportation and disposal of sludge and comparable installation of metering should not be included in the employee bid, and the employees should receive credit for the analogous leave liabilities when bids are compared.

### **d. Employment Issues**

The contract contains a number of provisions designed to provide some protection to the employees. One provision requires that the contractor provide base salaries to the employees that are at least equivalent to their base salaries as of the contract date, plus five percent (5%). A requirement to raise salaries across the board is unusual. An alternate formulation would allow for market salaries and incentives.

Another provision restricts the ability of the contractor to terminate employees involuntarily for a certain number of years. The S&WB has asked for bids assuming alternative periods of 5, 7 and 10 years.



Although it has become standard in the U.S. contract operations industry to guarantee no involuntary layoffs for a period of time, such restrictions pose an obstacle to maximizing cost savings. Savings through reengineering or managed competition come primarily through reductions in workforce, energy and chemical costs, and in cross-training and utilization. At the S&WB, employee costs appear to compose 49% of total operating costs, or \$40 million for water and sewer. A modest 15% savings in labor costs would yield the S&WB \$6 million. That means for every year that employees are retained artificially, the S&WB foregoes approximately \$6 million.

There are, of course, factors other than price that need to be considered in the treatment of employees. These included social, moral, political and other community obligations. It is important, however, to be aware of the potential impact of protective provisions on cost reductions.

## **e. Miscellaneous Comments**

### **Section 4.04(f) Operations**

This provision requires the contractor to fully employ and use the System's incinerator for the treatment and incineration of all Residual Sludge and load onto vehicles, transport and dispose of all ash resulting from such incineration at the Landfill. This requirement may not be cost effective as the contractor may be able to find cheaper solutions. The S&WB should consider removing this requirement.

### **Section 8.01 Maintenance of Net Worth**

This section requires the contractor's guarantor to maintain a minimum net worth of \$100 million or 80% of the net worth upon proposal submission, whichever is greater. Section 5.2.10 of the RFQ requires the guarantor to demonstrate total equity over \$100 million. The terms net worth and total equity should be clarified and reconciled. Also, if the guarantor is sufficiently qualified with \$100 million in equity, arguably the contract should not encumber even more of the guarantor's balance sheet. This produces a risk premium that is incorporated in the cost proposal.

### **Section 8.01(n) 98% Collection Rate**

The failure of the Company to collect at least an average of ninety-eight percent (98%) of all customer invoices within ninety (90) days constitutes an event of default. This is probably too severe. In any case, in Exhibit 1 to Schedule 12, the denominator should be adjusted so as not to penalize the contractor (or employees) for any bill uncollected or in dispute due to the sanitation fee component.

### **Section 10.11 Board Reimbursement**

This provision requires the winning Company to reimburse the S&WB for costs of procurement, up to \$2.5 million, upon commencement of operations. Although such a reimbursement is not uncommon in procurements and other up-front fees are commonly paid (particularly for leases), the money is not free. The private vendor must recover the reimbursement through its operating fee over the term of the contract.

Since the vendor has some corporate-wide cost of capital (a blend of taxable debt and targeted equity return), as well as gross profit margins built into the operating fee, presumably, the amortized recovery of the reimbursement will be marked up, if not to earn a profit margin, then at least to compensate for the time value of money.

The arrangement is very similar to a loan, and it should be understood that the interest rate would certainly be higher than the S&WB's tax-free borrowing rate. Assuming a conservative interest rate of 7% over 20 years, the present value of the S&WB's interest payments to the vendor (using a 3% inflation discount rate) would be nearly \$1.8 million, in addition to the repayment of \$2.5 million in principal. The up-front payment should be eliminated.

### **Contract Oversight**

Item 78 in the April 3, 2001 Public Written Comments Regarding Draft RFQ/RFP for Managed Competition of Sewerage and Water Board of New Orleans apparently intends to require the contractor to pay for contract oversight. This requirement should be eliminated. The payment simply gets reflected in the O&M fee.

### **Section 12 Dispute Resolution**

This section should contain more specific procedures for making claims, giving notices and time periods for consideration.

### **Schedule 1, SCI.2 Wastewater Treatment Facilities**

The section provides very specific requirements (monthly averages, daily maximums, etc.) for the West Bank Wastewater Treatment Plant (WWTP), which are tied to the NPDES permit. The East Bank WWTP requirements are indicated to be Agreement limits for daily maximums of key quality parameters and are not tied to permit requirements. There is no stated rationale for the differing approach. For the East Bank WWTP, the approach appears to allow excursions above permitted monthly average requirements without any contractual penalty to the contractors. It is unclear whether the S&WB or the contractor would be held liable for such regulatory violations. Approaches for East and West Bank WWTP performance should be the same.

### **Schedule 2, SC 2.4 and SC 2.5 Performance Standards and Guarantees**

These sections provide specific performance standards for water treatment and distribution, wastewater treatment and collection, systems operation and maintenance. The sections indicate specific operating and maintenance tasks, frequency, etc. Rather than providing minimum performance standards (results), the sections appear to require specific actions. While specificity is helpful, the service contract should not be overly prescriptive. The contract should state what is to be done (scope) and how it will be measured (performance), and minimum acceptable requirements, if necessary.

Work methods and procedures generally should be left to the contractor. The reasons for this are twofold. First, the nature of the legal relationship between the owner and the independent contractor must be maintained. If the owner prescribes the means, methods and procedures to be used by the contractor in completing the work, the independent contractor relationship becomes blurred. The owner, in fact, may become responsible for

the outcome of the prescribed means, methods and procedures used by the contractor. This negates one of the basic concepts of contracting--to transfer risk for the outcome from the community to the contractor. Second, an overly prescriptive contract might restrict the creativity of the contractor in developing work methods and procedures that can be more effective and efficient. These methods and procedures may differentiate one contractor from another, increase competition, and be reflected in a more competitive price to the owner.

### **Unaccounted For/Lost Water**

Only half the water treated is sold. The current O&M Agreement addresses the issue as follows. Section 2.02 establishes the Drinking Water Base Demand Range to include an Unaccounted For Water Percentage no greater than 15%. Section 10.03(b)(1) allows for increases in the contractor's fee if demand exceeds the defined range, but removes increases in unaccounted for water from this calculation. In other words, the contractor is at risk for increases in unaccounted for water beyond 15%. Although the 2000 CAFR (p. IV-8) reported unaccounted for water of 44.4%, the definition of Unaccounted For Water Percentage in Section 2.02 excludes from the percentage the amount which may be estimated from known unmetered City or other public or governmental facilities .

Section 10.09 requires the contractor to provide such information as is necessary to enable the Board to calculate the Unaccounted For Water Percentage.

The above provisions are an acceptable way to allocate risk and therefore provide incentives for the contractor to limit (though perhaps not minimize) Unaccounted For Water (UAW). Another solution would be to develop a contractor incentive tied to some specific UAW goals. The incentive would need to be high enough to encourage contractor investment in system renewal and replacement. There also would have to be a specific formula for measuring UAW. In any case, the calculation of UAW should be shown in Section 2.02.

## **f. Management Only Agreement**

### **Section 9.04 Performance Payments**

This provision is not entirely clear and to minimize disputes should be refined in its description and include a sample calculation. The justification from CDM for the \$62.5 million baseline seems reasonable. The default threshold may be too low, particularly in the first year, and the S&WB should consider a buffer zone of several percentage points wherein damages are imposed.

## **D. Dangling Issues**

There are a number of issues relating to the procurement that should be resolved before the City proceeds with it. These include:

- the impact on the pension plan of transfers of SWB employees to a private vendor.
- the scope of authority of the CSC with respect to the proposed transaction.
- the legality of certain terms of the proposed contract under Louisiana's public bid laws.

### **1. Pension Issues**

Under the terms of the proposed O & M Agreement, approximately 830 employees would be transferred to the private operator. This transfer could impact both the pension benefits of the transferred employees and the costs of funding and administering the S&WB's existing plan.

The S&WB's Pension Committee has retained counsel to investigate the impact of privatization. Counsel is still investigating the many ramifications of the issue and the options for dealing with it. Issues raised include the following: whether the transfer would constitute a partial termination of the retirement plan (which results in full vesting of benefits for all participants), whether a spin off is possible, and whether former S&WB employees could continue to participate in the plan after they are employed by the private vendor. As counsel has pointed out, the various alternatives could have a serious financial impact on the existing plan and employee contributions and require amendments to the RFP. Thus, the treatment of employees for pension purposes should be resolved promptly.

### **2. Role of the Civil Service Commission**

The CSC claims considerable power over privatizing or restructuring the S&WB. New rules effective February 2001 provide that no proposal to privatize shall be binding or effective until approved by the CSC. Privatization is defined as the performance by other entities of a function or service which has been or could be provided by employees in the classified service. The rules further provide that the privatization contract must contain provisions protecting employee rights and sets forth criteria for evaluating a privatization proposal. The proposal must be presented to the CSC at a meeting open to the public.

In *Civil Service Commission of the City of New Orleans v. City of New Orleans*, the Civil District Court recognized that a privatization contract for management of the Cultural Center required the approval of the CSC. In that case the court issued a preliminary injunction that, among other things, prohibited the City from transferring City employees employed at the Cultural Center until such time as the CSC had approved the management contract. In connection with the S&WB's proposed managed competition, the CSC has filed for a preliminary injunction to prevent the S&WB from implementing any contract or agreement privatizing any of the S&WB's operations or affecting employment rights of classified employees without specific approval of the CSC. The action also seeks a declaratory judgment that the S&WB is empowered to review any such contract.

The CSC has approved other requested privatizations including garbage and recycling pick up and that of the S&WB's wastewater treatment plants in 1992.

The CSC's powers are not without ambiguity and challenges. S&WB's employees formally requested clarification on the following issues from the CSC in November 2000:

- Whether the employees may enter into the proposed Memorandum of Understanding (or even submit a proposal)
- Whether the CSC must approve all or part of an agreement with a private vendor
- Whether the CSC must approve all or part of staff reductions or promotions, positions, changes or redefinition, and salary increases, decreases and incentive payments.
- Whether the CSC can require specific contract provisions.

The draft RFQ/RFP does not mention the CSC's claims, suit or rules regarding privatization. The receipt of approval by the CSC of certain employee related matters is required as a condition precedent to the effectiveness of the contract with the vendor; the required approval is of more limited scope, however, than the approval authority claimed by the CSC. The scope of the CSC's authority should be clarified before the RFP is issued and any necessary amendments incorporated into the procurement documents.

### **3. Possible Conflicts Between the Procurement Terms and the Public Bid Law**

Sections 33:4084 and 4085 of the Louisiana Revised Statutes require the S&WB to advertise and award to the lowest bidder contracts for materials and supplies in excess of \$15,000, for repair and renewal work (not executed by S&WB employees) in excess of \$10,000, and for construction contracts in excess of \$10,000. (Provisions of R.S. 38:2012 and 2012.1 relative to public bids also apply to the S&WB.) The repair and construction work subject to these public bid laws include the cost of labor and materials.

## BGR

The draft O&M Agreement contains complicated (and sometimes ambiguous) provisions addressing the division of responsibilities for maintenance, repairs and replacements, and capital projects. Basically the contractor is required to procure, provide and implement all maintenance, repairs and replacements, except for Capital Projects and Material Capital Repairs and Replacements. A Material Capital Repair and Replacement is defined as one that exceeds \$10,000 (escalated pursuant to an Escalation Index), exclusive of labor and certain other costs. Thus, the contractor's responsibilities include projects that exceed the \$10,000 limit set forth in the bid law. As a result, the contractor is undertaking to perform categories of work that would have to be put out to bid if performed on an individual basis.

Other provisions of the O&M Agreement raise significant issues. For example, the O&M Agreement provides that the S&WB may in its sole discretion perform a Material Capital Repair itself, through a third person, or through the contractor. In addition, the contract contemplates that the S&WB may ask or allow the contractor to procure or implement major capital projects not included within the scope of its general obligations under the contract. It is unclear whether such requests will be made only if the contractor is the low bidder, whether they assume a direct negotiation, or whether the contractor would be expected to follow the public bid law in retaining a subcontractor for the project.

Other provisions of the contract, such as Section 5.01, could be interpreted as violating La. R.S. 38:2012, which prohibits a contractor from financing public works. Section 5.01 provides that, if the contractor elects with the S&WB's approval to undertake a project at its own expense, savings will be shared on a basis that allows the contractor to recover 200% of the project's cost before sharing any savings with the S&WB.

The above examples are not exhaustive. In view of the complexity of the agreement and the apparent ambiguities and conflicts, clarification of these issues is necessary before the RFQ/RFP is issued.

### **III. HOW BEST TO REDUCE COSTS AND IMPROVE SERVICE**

#### **A. The S&WB**

The S&WB was established by the state one hundred years ago to remove the planning and operation of water and sewer services from the City and to place the systems in the hands of an independent board. In 1903 the S&WB acquired the responsibility for drainage, other than subsurface drainage. The S&WB provides service to all of Orleans Parish and some service to customers outside New Orleans, most notably drainage in Metairie.

The S&WB operates water purification plants and wastewater treatment facilities located on both the east and west banks of the Mississippi River. The Carrollton water treatment plant has a peak capacity of 270 million gallons per day (MGD). The Algiers water treatment plant has a peak capacity of 40 MGD. The Eastbank sewerage treatment plant has an average daily capacity of 122 MGD, and the Westbank treatment plant has a 10 MGD capacity. S&WB has 83 sewerage-pumping stations and 22 drainage-pumping stations with a capacity of 30 BGD. The system has 1500 miles of gravity sewer pipes and 1600 miles of water distribution and transmission pipes. In addition there are 260 miles of open and covered canals. The S&WB also operates an electrical generation system that provides power to 15 of 22 pumping stations and water treatment plants.

#### **B. Challenges Facing the S&WB**

Before drawing conclusions on what reengineering or competitive contracting is likely achieve for the S&WB, it is necessary to recognize a number of significant challenges facing the S&WB. These include:

- the Consent Decree signed with the EPA
- increasingly-tighter water and wastewater treatment permit standards
- mounting capital needs of an aged system in need of major maintenance and repair
- the diminishing availability of grant funds
- the absence of sufficient rate increases
- governance problems.

## **I. Technical Challenges Facing the S&WB**

### **a. Water Treatment**

The S&WB, like every other water provider in the U.S., must respond to an ever-changing regulatory environment. The S&WB's 1997 Water Quality Master Plan Update notes that the S&WB is expected to meet the requirements of numerous federal regulations. In addition, the S&WB must meet local treatment objectives for softening, taste and odor, and minimization of health risks.

In order to meet these requirements, the Plan identified numerous process improvements for both the Carrollton and Algiers water treatment facilities, requiring an investment of more than \$100 million (1996 dollars). The various projects include the possible installation of ozonation equipment (\$48 million), the renovation of the G and L basins (\$9.5 million) at the Carrollton plant, and filter and chemical feed improvements at both Carrollton and Algiers. These improvements must be completed while maintaining adequate production capability at each facility.

### **b. Water Distribution**

The water distribution system has a consistent backlog of water main breaks and service disruptions. In large part the main breaks are due to the general drying of the subsoil during the recent prolonged dry period, and related subsidence. This causes differential settling of the water mains, often resulting in structural failures. In March 1996, the reported backlog was estimated at more than 6,000 work orders. By November 1999, the number of backlogged work orders was reduced to approximately 2,100. Crews now can meet the number of new breaks being reported but are not reducing the backlog.

In addition to these immediate problems, the S&WB is faced with the need to begin replacing some major transmission mains within the water system. Although replacement projects are included in the S&WB capital improvements program, they have been delayed due to funding shortfalls.

### **c. Wastewater Treatment**

The challenge in wastewater treatment relates principally to the rehabilitation, renewal and replacement of the East Bank facility. This facility was placed on line in the early 1970s and is reaching a point where significant capital investment is needed. Currently, the headworks area is being modified and rebuilt, and the influent channel to the oxygen reactors is being repaired and modified. In addition, Camp Dresser & McKee has designed modifications to the multiple hearth furnace, one of two sludge incinerators. These are underway.

According to the Chief of Operations, the pure oxygen generation station needs to be rebuilt. It is not in operation currently. Liquid pure oxygen is purchased and trucked to the site at a cost of approximately \$900,000 per year. In addition, the oxygen treatment reactors need to be rehabilitated. However, since none of the four reactors can be



isolated for rehabilitation, there is no means by which treatment capacity can be maintained during construction.

#### **d. Wastewater Collection**

In 1998, the S&WB settled a lawsuit filed by the E.P.A. to force the S&WB to bring the sewer system on the East Bank into compliance with pollution control regulations. At the time of signing, the capital costs associated with the resulting Consent Decree were believed to total \$250 million. The most recent estimate, by S&WB's consulting engineer, Montgomery-Watson, at February 16, 2000, was \$455.8 million.

The S&WB has developed a 10-year investment program leading to full compliance by the end of 2010 as required by the Consent Decree. Approximately 80 percent of the construction is scheduled for completion by 2006.

The S&WB has in place a separate capital improvement program for the West Bank. The estimated investment needed there totals \$19 million (2000 dollars). The program would not be undertaken before 2011.

#### **e. Unaccounted For Water**

The S&WB also is faced with a high volume of unaccounted for water (UAW). UAW is the difference between metered water production and metered or otherwise accounted for water use. UAW is in excess of 40 percent. Some volume of unaccounted water can be found in every water distribution system, due to minor leakage, inaccuracies in metering, street cleaning and sewer flushing activities, etc. However, the volume of UAW in most municipal systems generally is 15 percent of metered production. Unaccounted for water volumes in excess of this normal loss should be investigated and eliminated if economically feasible. Lost volumes place an unnecessary burden on water pumping and treatment facilities, have related capital costs (for capacity), and chemical and power costs (for treatment and distribution).

#### **f. Free Water**

S&WB provides free water to numerous public entities, including municipal and parish facilities. The S&WB's draft RFQ/RFP, Section 2.2.1 indicates that there are over 700 government accounts that are not billed. Such free water service is not uncommon for the municipal water industry, and by state statute the S&WB must provide free service to a number of public entities. This creates a problem since the entities that receive free water have little incentive to reduce or optimize water use. This inefficiency raises rates for everyone. S&WB staff estimate the cost of free water is over \$2 million per year. Neither privatization nor reengineering would eliminate this costly practice without more metering.

## 2. Financial Challenges Facing the S&WB

### a. Recent Operating Costs

Table 3 contains historic operation and maintenance (O&M) costs for the sewer department for the three years 1998, 1999, and 2000. O&M costs for the sewer department increased by 2.3% in 1999 and by 10% in 2000. The increase in 1999 can be traced to the budget categories of Treatment and Transmission and Distribution. Significant factors in the increase between 1999 and 2000 were the increases in the Provision for Claims, Treatment, Transmission and Distribution, and Customer Accounts expenses. Provisions for claims and doubtful accounts have experienced a compound annual growth rate over the past three years of more than 25%.

**Table 3**  
**Sewer Operation and Maintenance Costs, 1998-2000**

<b>SEWER</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>CAGR*</b>
Operating Expenses:				
Power and Pumping	\$2,445,310	\$2,321,839	\$2,421,505	0.49%
Treatment	8,865,625	7,839,032	7,034,987	12.26%
Transmission and Distribution	5,847,260	5,567,839	5,083,392	7.25%
Customer Accounts	1,423,475	1,384,295	1,327,475	3.55%
Customer Service	1,245,538	1,342,643	1,370,380	-4.66%
Administration and General	4,714,402	4,127,168	4,474,234	2.65%
Payroll Related	4,017,757	4,413,516	4,484,435	-5.35%
Maintenance of General Plant	2,713,504	2,533,437	2,769,188	-1.01%
Provision for Doubtful Accounts	465,736	366,655	296,420	25.35%
Provision for Claims	4,276,144	2,830,048	2,733,261	25.08%
<b>Total Operating Expenses</b>	<b>\$36,014,751</b>	<b>\$32,726,472</b>	<b>\$31,995,277</b>	<b>6.10%</b>
Change from Prior Year - \$	\$3,288,279	\$731,195		
- %	10.05%	2.29%		
Source: 1999 and 2000 S&WB Comprehensive Annual Financial Reports; without depreciation and amortization.				
* CAGR – compound annual growth rate.				

Table 4 contains historic operation and maintenance (O&M) costs for the water department for the three years 1998, 1999, and 2000. Total O&M costs have increased an average of 6% each year. Power and Pumping, Transmission and the Provision for Claims cost categories have all experienced double-digit increases for the 3 years analyzed.

**Table 4**  
**Water Operations and Maintenance Costs, 1998-2000**

<b>WATER</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>CAGR*</b>
Operating Expenses:				
Power and Pumping	\$10,535,990	\$7,867,719	\$7,758,591	16.53%
Treatment	4,459,647	4,904,706	4,695,012	-2.54%
Transmission and Distribution	10,327,420	10,951,296	8,339,083	11.29%
Customer Accounts	1,423,481	1,381,195	1,327,480	3.55%
Customer Service	1,245,543	1,339,635	1,370,385	-4.66%
Administration and General	5,994,103	5,843,401	5,942,076	0.44%
Payroll Related	6,754,904	6,950,670	7,387,860	-4.38%
Maintenance of General Plant	5,232,272	4,852,161	5,200,872	0.30%
Provision for Doubtful Accounts	605,149	628,735	539,097	5.95%
Provision for Claims	3,739,128	2,280,052	2,233,266	29.39%
Total Operating Expenses	\$50,317,637	\$46,999,570	\$44,793,722	5.99%
Change from Prior Year - \$	\$3,318,067	\$2,205,848		
- %	7.06%	4.92%		
Source: 1999 and 2000 S&WB Comprehensive Annual Financial Reports; without depreciation and amortization.				
* CAGR - compound annual growth rate.				

Between 1998 and 2000, sewer O&M costs increased by approximately \$4 million and water O&M costs increased approximately by \$5.5 million, for a total O&M increase of \$9.5 million for sewer and water.

## **b. Rates for Sewerage and Water Customers**

Operations and maintenance activities have been adjusted to accord with revenues available, but S&WB's rate increases have not kept pace with capital improvement needs. Prior to the rate increase in March, 2000, sewer rates had not been raised in 14

years. Similarly, water rates have not been increased since 1990. Adjusted for inflation, the revenue from these fees has declined steadily over the last 10 years. At the same time, the S&WB customer base has been stagnant at about 139,000, though tourism has increased. The historical reluctance to raise rates has helped contribute to the level of financial challenges today.

In October 1998, in response to the Consent Decree, the S&WB asked the New Orleans City Council to approve a 42% sewer fee increase staged in five annual increments: 17%, 13%, 4%, 4%, and 4%. On March 2, 2000, the City Council approved a one-step 30% sewer fee increase effective March 16, 2000. No action has been taken on additional increases.

The S&WB has in reserve a 12% rate hike for the water system approved by the City Council and Board of Liquidation in the early 1980 s as the fifth of a five-step increase. The increase can be implemented by a majority vote of the S&WB.

**c. Grants**

As noted the S&WB has entered into a Consent Decree requiring the investment of about \$455 million to repair its aging sewer system. Federal grants are possible (but not guaranteed) for up to \$100 million of this. The balance must be raised locally.

In connection with collection system improvements, S&WB has received EPA grants in decreasing annual amounts, as shown here:

<b>Award Date</b>	<b>Amount</b>
9/25/96	\$10,000,000
6/30/97	8,500,000
9/22/98	8,000,000
8/11/99	6,525,000
8/18/00	3,800,000

**3. Governance Challenges Facing the S&WB**

Governance refers to the formal and informal instruments of control, decision making and management of the utility. The structures and protocols of governance critically affect the ability of an organization to succeed in performance improvement, whether through reengineering or managed competition. A number of challenges related to governance at the S&WB are discussed below.

**a. Lack of Independence; Multiple Allegiances**

Although the S&WB is ostensibly an independent agency, its operation is tightly entwined with city government. Of the Board s 13 members, four are elected City officials, and seven others are appointed by the mayor with council approval. The remaining two are members of the Board of Liquidation, City Debt, appointed by the

mayor on that board's recommendation. The mayoral appointees serve staggered nine-year terms.

Elected officials also dominate the S&WB's committee leadership. The Mayor is the President of the Board and the Chairman of the Drainage Committee. Currently, councilmen-at-large chair the Board's Sewerage and Water and Finance Committees.

This structure, and other crossed lines of authority, contribute to the challenges for decision-making, approvals and implementation, particularly in the areas of rate setting, construction contracting and employee governance.

### **Rate Setting**

One example of how the complex structure affects decision-making is the latest rate increase. State law requires the S&WB to set user fees, subject to the City Council's ratification. With four elected officials on the S&WB, electoral pressures can exert a strong influence to delay action on rate increases. When the S&WB voted in October 1998 to recommend increasing sewer fees by 42%, the three City Council members sitting on the S&WB voted in favor of the increase. Yet the City Council did not act on increasing fees until 18 months later.

### **Construction Contracts**

Major S&WB construction contracts must be approved by the City Council. This authority can create the appearance of a patronage system and delay the contracting process.

One of the primary reasons that City governments create independent water and sewer authorities is to improve the independence of their contracting processes. Requiring that contracts be approved by the City Council undermines this purpose.

### **Personnel Issues**

All but five of the S&WB's approximately 1,250 employees are classified civil servants. According to S&WB management, the authority and rules of the Civil Service Commission<sup>2</sup>, severely hamper operations. Examples of problems include the following:

---

<sup>2</sup> Established By Article X sec.1 (B) et seq. of the Louisiana Constitution. The Commission has five members who serve overlapping six-year terms. Members are appointed by the City Council from a list of three nominations submitted by each president of four New Orleans universities and from a list of three nominations submitted by employees. The commission is vested with broad and general rule-making and subpoena powers for the administration and regulation of the classified service. The rules adopted shall have the effect of law with decisions of the commission subject to the court of appeal. The City's classified service is comprised of all City (and S&WB) employees except elected officials and those employees holding positions enumerated in Section. 2(B).

## BGR

- In some cases, there are unreasonable limits on wages. For example, because a legal secretary's starting salary is only \$14,400 per year, the S&WB's legal department has used temps for a decade. The low wages make it difficult to attract and retain talented employees.
- Rules on promotion and pay increases can make quality work difficult to reward. Many promotional tests are open only to those who have already been employed at a lesser grade for at least a year. Other promotional positions are based solely on a rating of experience. Pay increases are generally limited because of a requirement that equitable treatment is assured for all classified personnel. It should be noted, however, that the S&WB's Networks Division has begun using employee incentives and cross training, which have been approved by CSC as a pilot program.
- Terminating or otherwise disciplining employees can be difficult. Civil service requirements for documentation of even verbal reprimands and the length of time required resolving an appeal discourages some managers from disciplining employees.

One tenet of effective workforce management is that senior managers must be fully empowered with the day-to-day direction and discipline of employees. The subtle threat of intervention (appeals to the CSC or S&WB board members) on behalf of an aggrieved employee is intimidating to managers, who then may avoid more aggressive actions to improve labor productivity or discipline recalcitrant workers.

### **b. Burdensome Committee Protocols**

The S&WB's six committees require a large number of staff (up to 20) and consultants at the monthly meetings of its six committees: pension, operations, sewerage and water, drainage, finance, and executive. Disagreements over committee jurisdiction result in month-to-month delays as undecided issues bounce from committee to committee, then to the full Board. Any committee may request a deferral to allow time for consultants and/or staff to answer a member's question.

Delays also result from different committees considering different aspects of the same issue. For example, either the drainage committee or the sewerage and water committee (sometimes both) decides whether to grant a contract for a project; the finance committee decides if there are sufficient funds; and the operations committee decides if the low bidder or professional service firm meets the DBE goal.

Appeals from the low bidder not awarded a contract may take up a lot of committee and board time, especially if the full Board hears the parties lodging the appeal and then sends the dispute back to committee. As a recent example, because the operations committee objected, the S&WB did not award a contract to the company offering the lowest bid. After hearing the company's representative, the board sent the decision back to the operations committee. When the 45-day limit prescribed under state law was about to pass without action, the S&WB's managers gave the contract to the company rather than start the bid solicitation process over again.

## C. Reengineering

The purpose of this section is to consider whether the S&WB might achieve through reengineering cost reductions and service improvements comparable to those expected from managed competition. The section addresses the potential for reengineering in New Orleans, the experience of other jurisdictions, the anticipated savings for the S&WB, and possible obstacles to this level of savings in New Orleans. See Appendix G for experiences of other cities with reengineering and competition.

IMG's reengineering assessment was conducted in the following manner:

- Define utility reengineering, and identify the major actions typically associated with utility reengineering and high-performing utilities.
- Review 5-year staffing trends for each major department and division.
- Assess whether best practices and least cost methods common to other municipal utilities are currently being practiced by S&WB.
- Consider S&WB's experience in implementing similar reforms in the past.
- Apply the results to a baseline financial projection to calculate the potential impact on costs and rates.
- Consider whether S&WB's governance is sufficient to support and sustain over a long period the reengineering to implement these practices and methods, including specific opportunities and threats to success.

### I. What Is Reengineering?

*Thinking, Getting, and Staying Competitive: A Public Sector Handbook*, a publication of the Association of Metropolitan Sewerage Agencies, defines reengineering as follows:

The fundamental rethinking and radical redesign of business processes, management systems, and structures of the business to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality service, and speed.

Municipal utility reengineering usually occurs in one of four contexts:

- reengineering as a major, stand-alone performance improvement initiative
- reengineering under threat of privatization

## BGR

- bid-to-goal reengineering, using a hypothetical contractor bid as a performance target<sup>3</sup>
- reengineering as part of a staff proposal in a managed competition.

The major difference between reengineering and privatization or contracting out is that in reengineering the rethinking and redesign is carried out internally, and without a formal, enforceable contract. Full responsibility for the changes in operations rests with the organization in this case, the S&WB although outside consultants may offer advice and assistance. With outside contracting or other forms of privatization, there is a fundamental shift of responsibility to a private firm.

The first steps in utility reengineering typically include the following:

- roles and responsibilities throughout the organization are redefined
- collaborative labor-management relations replace the traditional adversarial approach
- staff members receive substantial training in leadership techniques, communications, and problem-solving
- cross-divisional teams are established to address technical and organizational issues
- processes are increasingly automated with enhanced instrumentation
- reactive maintenance is replaced with predictive and preventive maintenance, with work order and performance measurement systems organized accordingly
- non-core functions are contracted out
- costs of materials, energy, and chemicals are aggressively scrutinized and cooperative purchasing agreements are sought
- cumbersome procurement restrictions are reformed
- parts and supplies inventory systems are evaluated against just-in-time inventories and resultant cost savings
- opportunities are sought to perform services for other agencies on a fee-for-service basis such as sewer cleaning for a neighboring city, laboratory analyses for local agencies or recruiting personnel for other agencies
- activity-based budgeting is installed to encourage saving and eliminate the spend-it-or-lose-it line-item budget.

Just as importantly, the public sector culture that employees will be taken care of for life is replaced with the understanding that employees will be helped to develop skills

---

<sup>3</sup> Bid-to-goal reengineering is intended to simulate a real competition in which staff are compelled to meet an ambitious set of cost and performance goals established prior to the reengineering. In the event that the goals or schedule are not met or service quality suffers, the understanding with the utility is that the governing body has the option to privatize the utility.



while they are employed, but that individuals are responsible for their own careers. Pay becomes merit-based rather than according to longevity, and failing workers are readily dismissed. Moreover, while employees formerly did not have to worry about costs, now they know that costs must be reduced to become competitive. Gain-sharing and pay-for-performance programs create incentives for employees at all levels to formulate cost saving ideas and then share in successful implementation.

Reengineering the S&WB would require a shift of the utility's mission priority from day-to-day operation under long-standing procedures to a coordinated and continuous improvement of cost and service quality. S&WB's approach to cost reduction has instead relied upon the blunt instruments of hiring freezes, deferred major maintenance and deferred capital expenditure rather than a more organized right-sizing of the workforce, automation and cross-training typical of reengineering.

Because reengineering is about changing corporate culture as much as changing processes, it takes from three to five years, depending upon such factors as readiness for change, executive leadership, and level of resistance.

## **2. Potential for Improvement at S&WB**

In order to determine S&WB's potential for cost reductions through reengineering, IMG looked at the extent to which the organization uses standard performance measures; conducted a broad-stroke review of S&WB against industry practices; estimated S&WB's competitive gap; and reviewed trends in personnel. In addition, it reviewed the reengineering experience of the Networks Division to date and did a spot check of Water Purification to see if there was room for personnel reductions in that department.

### **a. Performance Measurement**

There is an adage that what gets measured, gets done. Its truth is borne out by many examples in the water and wastewater industry where performance has improved once goals are set and measurements against goals are made.

Table 5 is a compilation of comparative performance measures used by many utilities that have initiated meaningful reengineering programs, annotated with comments on the S&WB. By utilizing performance measures such as these, agencies undergoing reengineering can benchmark their performance with best-in-class public and private facilities as well as sources outside the wastewater industry.

**Table 5**  
**Examples of Comparative Performance Measures**

<b>Comparative Performance Measure</b>	<b>Comment</b>
<i>Percentage of maintenance work planned</i>	Most effective agencies have goals of planning at least 95% of their corrective, predictive and preventive maintenance work. Some have established a goal of 98%. The CASSWorks system is being used in the Networks Division to monitor and prioritize work, and to report on Consent Decree activities. CASSWorks is in process of being implemented at S&WB water treatment facilities; a computer-based maintenance management system is in place at the wastewater facilities operated by USFOS. Further implementation would facilitate greater planned, rather than unplanned, maintenance on a board-wide basis.
<i>Emergency maintenance</i>	Most effective agencies have goals of having no more than 2% of their maintenance work as the result of emergencies or breakdowns. S&WB has no statistics regarding emergency maintenance.
<i>Amount of preventive maintenance relative to corrective maintenance</i>	Most agencies attempt to achieve at least 70% preventive maintenance and no more than 30% corrective maintenance. S&WB with increased implementation of the computer maintenance program would be able to monitor planned vs. unplanned maintenance for pipes and equipment. S&WB has no statistics regarding preventive vs corrective maintenance. According to management, preventive maintenance tasks are conducted at the water treatment facilities, and for the wastewater collection system as required under the Consent Decree; there is no similar water distribution preventive maintenance program (e.g., valve turning, fire hydrant exercising, etc.) although one was recommended by EMA in their analysis.
<i>Availability of equipment</i>	Most agencies attempt to have each piece of equipment available for operation at least 95% of the time with 100% operability of those pieces critical to meeting the permit. According to management, equipment availability is not tracked at S&WB facilities. EMA, in its analysis of the Networks Division, indicated that equipment availability was a real problem for field crews noting that "...during the middle of the day, when all crews should be in the field, there are dozens of trucks in the yard". According to management, the problem still persists.
<i>Backlog of maintenance work orders</i>	Typical maintenance backlogs in the industry are 30-60 days (exclusive of those instances where a part needed for a breakdown situation takes longer than 60 days to obtain). Further use of the CASSWORKS programs would allow greater use of preventative maintenance work in all systems.

BGR

<b>Comparative Performance Measure</b>	<b>Comment</b>
<i>Dollars of parts in inventory</i>	<p>Tracking this amount will provide an indication of the effects of new practices (e.g., common MMS and data base, centralized functions) on the amount of inventory. In one case (Los Angeles), a 50% reduction in inventory was achieved following centralization of their maintenance functions.</p> <p>Private operations maintain a consistently smaller inventory than most public agencies. Costs for certain large public agencies evaluated have ranged from \$2.7 million to \$3.4 million. A private operator at Hamilton, Ontario maintains only a \$66,000 inventory for a 108 mgd secondary plant and a 132 mgd water treatment plant.</p> <p>There is no tie between warehouse inventory and the maintenance work order system. Further, the warehouse staff do not deliver materials to the crews in the field resulting in a constant flow of Networks trucks to and from work sites picking up needed materials.</p>
<i>Cost of labor + benefits + outside services</i>	<p>This is a measure used by King County, Washington in its gainsharing program. The concept is to contain the costs of labor, benefits and outside services such as contractors and repair vendors. Baseline costs from the last year of operation can be established as a measure for comparison. Factors beyond the control of staff should be excluded.</p>
<i>Cost of materials, supplies, utilities</i>	<p>This is another measure used by King County in its gainsharing plan.</p>
<i>Kilowatt-hours per million gallons treated and kilowatt-hours per million gallons metered at delivery</i>	<p>This is a measure used to track the energy efficiency of operations. Additional analyses of energy usage characteristics (e.g., power factor, peak KW) can be used to identify inefficient equipment or operating practices and strategies.</p>
<i>Cost per million gallons treated</i>	<p>This could be used to track the overall performance of operations and maintenance at the treatment plants.</p>
<i>Number of work orders processed per maintenance worker per year</i>	<p>Tracking this parameter could provide an indication of any trends in productivity.</p>
<i>Number of maintenance personnel per mgd of capacity</i>	<p>Because equipment and related maintenance requirements vary substantially from plant to plant, this parameter can provide only a general indication relative to industry practice. Continued tracking and added benchmarking of this measure against other similarly sized facilities with similar processes can provide an indication of improvement and competitiveness, especially if other utilities can be found that track maintenance labor by unit process so that more direct comparisons can be made.</p>
<i>Cost by field activity or plant unit process</i>	<p>Most utilities involved in benchmarking or which have an up-to-date MMS are tracking labor and material costs by plant unit process. Activity based cost accounting also can be used to capture costs in this fashion.</p>

<b>Comparative Performance Measure</b>	<b>Comment</b>
<i>Warehousing performance</i>	Goals/performance measures often used for warehousing functions include achieving a 95%-98% inventory identification accuracy rate; and responding to 95% of part of the requests within 24 hours.
<i>Percentage turnover of staff per year</i>	These data are readily available from most agencies. The key difference in expectation is linked to the quality of job pay and benefits offered by the agency.
<i>Lost time in accidents</i>	This is a readily available measure of the effectiveness of worker training in safety and management attention given to safety. Most public sector agencies do not capture this information since they are not covered by OSHA reporting requirement.
<i>Percentage of budget spent on training</i>	Most agencies spend a small percentage of the budget on training. However, the trend is increasing due to pressure for optimization. Typically, public sector utilities commit 1 to 3 percent of personnel budget to training; in the private sector, the range is 3 to 5 percent of the personnel budget.

The S&WB apparently does not have a consolidated performance measurement system and does not conduct routine benchmarking with other utilities. While some limited measurement is conducted by individual departments, particularly Customer Services and Billing, such measurement does not appear to be a part of routine planning, evaluation or decision making for the organization.

### **b. Reengineering Checklist Assessment of S&WB**

IMG conducted a high level evaluation of S&WB to determine which of the best industry practices were currently being used by the utility's major departments and divisions. The results of this checklist analysis are included in Table 6, Reengineering Action Item Review of S&WB (see next page).

As Table 6 shows, aside from the recent restructuring of the Networks Division and some efforts implemented as part of the wastewater treatment contracting, as well as selected performance measures implemented by Revenue and Customer Services, S&WB has apparently adopted only a few of the action items associated with best industry management practices. According to several S&WB managers, many more best practices initiatives have been proposed to top management or the Board, but rejected. This calls into question the willingness of management and the Board to support an aggressive and durable reengineering campaign.

### **c. Estimation of Competitive Gap and Potential for Improvement**

Within the water and wastewater industry, there are a number of large private sector companies that provide contract operations and maintenance nationally and internationally. Through years of operating in a competitive environment, not constrained by many of the rules and procedures found in the public sector, these firms have developed business practices that usually result in lowest cost of service delivery.

BGR

These best practices can be used as a basis of comparison in an assessment of competitive margin.<sup>4</sup> This approach, developed for the municipal utility industry by the respective national associations for municipal water and sewer utilities and slightly modified for use in this engagement, was utilized in the evaluation process described below.

Ten areas of comparison are used. These include five operations and maintenance (O&M) work practices and five business culture practices. The O&M practices focus on the three largest cost factors confronting most utilities – labor, energy and chemicals. The business culture practices focus on the customer, culture and business-like alignment, information, and administrative work. Using these areas of comparison, the competitive margin of the utility or department can be assessed.

Based on interviews with a cross-section of S&WB upper and mid-level managers conducted by IMG's operations specialist, and some observation of current operations and practices, a competitiveness assessment was developed for the S&WB overall. The results are shown in Table 7.

**Table 7  
Competitive Gap Analysis**

<b>Business Practice (scoring range)</b>	<b>S&amp;WB</b>
Day shift operations (3 to 15)	9
Off-shift operations (3 to 15)	7
Maintenance philosophy and execution (3 to 15)	10
Multi-skilled maintenance staff (3 to 15)	12
Energy and chemical management (3 to 15)	6
Customer service responsiveness (1 to 5)	4
Organizational culture (1 to 5)	2
Administrative work practices (1 to 5)	2
Business alignment (1 to 5)	3
Information access (1 to 5)	2
<b>Score</b>	<b>57</b>
<b>Competitive margin</b>	<b>20 %</b>

The competitive margin, though expressed in numbers and a percentage, is a qualitative measurement useful as a rough indication of how S&WB's performance compares with its peers.

#### **d. Staff Attrition**

The S&WB's ability to reduce operating costs through reengineering can be gauged to some degree by staff achievements and initiatives to date. Table 8 below summarizes the staff reductions for each division over the past 5 years through the staff hiring freeze and attrition.

<sup>4</sup> *Thinking, Getting and Staying Competitive – A Public Sector Handbook*. Association of Metropolitan Sewerage Agencies and the Association of Metropolitan Water Agencies (1998).

Table 8 shows that actual staffing has declined sharply at S&WB over the past five years. The payroll reduction alone has substantially reduced the utility's operating costs. However, the staff reduction has been a product of the hiring freeze, more restrictive domicile requirements for employees and natural attrition, rather than a coordinated effort to right-size the staff in each department.

This means that while managers have had to become more efficient, some departments are clearly short-handed or mismatched with skills of the remaining staff. Nevertheless, the staffing reduction is impressive, if crudely implemented, and has surely increased labor productivity, albeit perhaps at some price in service quality and maintenance.

**Table 8**  
**S&WB Staff Attrition 1996-2001**

Major Division or Department	Actual Staffing Level		
	1996	2001	% Change
Executive Office	41	29	-29%
Planning & Budget Division	8	13	63%
Environmental Affairs Division	9	8	-11%
Administrative Services Division	33	28	-15%
Support Services Division	163	146	-10%
Management Services Division Director's Office	4	4	0%
Personnel Department	15	15	0%
Finance Department	42	34	-19%
Information Systems Department	15	11	-27%
Revenue & Customer Services Department	255	189	-26%
Purchasing Department	18	12	-33%
Drainage and Sewerage Pumping Department	174	139	-20%
Operations Division	198	154	-22%
Facility Maintenance Division	104	86	-17%
Networks Division	474	341	-28%
Engineering Division	57	34	-40%
Plumbing Division	16	16	0%
<b>TOTAL</b>	<b>1626</b>	<b>1259</b>	<b>-23%</b>

### e. Water Purification

Review of the organization chart for the Water Purification Division indicates that the treatment plant operating staff at the Carrollton facility is 60; at Algiers, 27. Current capital improvements planning anticipates some improvements in automation<sup>5</sup>, e.g., installation of automatic filter backwashing at the Carrollton plant and improved chemical feed systems and instrumentation at both treatment facilities. Based on IMG's review, it may be possible to obtain a 50 percent reduction in staffing for the combined facilities. This staffing level assumes significant new capital investment in automation, instrumentation and control systems. It does not include corrective maintenance or repair activities.

<sup>5</sup> Malcolm Pirnie, Inc., *Water Quality Master Plan Update*, April 1997.

## **f. The Networks Division and Efficiency Improvements**

In February 1999, the S&WB hired EMA Service, Inc. to recommend efficiency improvements for the Networks Division, which performs minor and emergency repairs for all three systems. The Networks Division was widely recognized to have the poorest performance and greatest potential for improvement of any of the agency's divisions. EMA's November 1999 analysis found significant inefficiencies:

- the top-heavy organizational structure had one supervisor for every three workers;
- most of the work was reactive (that is, reacting to a breakdown rather than planned preventive maintenance) and was 40% more costly than preventive work;
- there were too many specialty crews, insufficiently trained in other skills;
- equipment repairs took too long, and responsibility was split among departments;
- poorly scheduled support activities (such as equipment maintenance and parts stocking) reduced the time work crews had available to spend on the repair jobs.

EMA's recommendations included:

- eliminating the division of repair crews by system,
- assigning multi-skilled workers to smaller crews, and
- assigning work on a zone basis to foster a sense of worker ownership of each service area.

Some of these recommendations have already been implemented, and the S&WB staff indicates that the efficiency improvements have helped reduce the repair backlog. Implementing EMA's recommendations would cost \$1.2 million. EMA estimates that the resulting efficiency improvements would be equivalent to \$4 million a year.

The work by EMA<sup>6</sup> provides some additional information as well. In the analysis, EMA identified the optimum staffing for the Networks crews at 178 – a reduction of approximately 40 percent from the then-current 300 employees. This optimized staffing level was based on a 30 percent reduction through an increase in the effectiveness of the workforce and an additional 15 percent reduction due to increased workforce flexibility.

Recent discussions with the Chief of Networks indicated the following:

- The Division has implemented the geographic zone concept recommended by EMA;

---

<sup>6</sup> EMA, Inc., *New Orleans Sewerage & Water Board Networks Division Analysis*, November 1999.



## BGR

- Cross-training has been initiated and is having reasonable success; more employees need to complete certification in the distribution and collection system disciplines;
- Employee reclassifications recommended by EMA resulted in pay increases ranging from 35 to 80 percent;
- Overtime has been reduced from approximately 100 percent to 20 percent; savings achieved by reducing overtime are being used to support pay increases and to provide incentive bonuses;
- Productivity is up; current staff can keep up with new work orders, but is not reducing the existing backlog;
- Preventive maintenance is being performed in the collection system as required by the Consent Decree; water system maintenance remains largely reactive with the primary focus on point repairs; the valve turning and hydrant exercise programs recommended by EMA have not been implemented;
- No net operating savings have been achieved.

With regard to the last point, it should be noted that saving money was not the goal of the reengineering exercise. The goal was to improve operating efficiency without increasing costs.

S&WB management has reported that the pace of maintenance and capital improvements has accelerated. While improvement has been noted, the increases in productivity resulting from recommended workforce flexibility and efficiency have yet to be fully realized.

Networks' experience with reengineering provides some indication of what might happen were it implemented in the rest of the organization. Agencies that have historically under-invested in equipment, repairs and human resources, such as S&WB, are more likely to see *service quality improvements* than cost savings. This has been the case in the Networks Division. The most notable change would likely be in service quality and responsiveness.

In advance of pending privatization, S&WB staff made a number of proposals for improving efficiency and service quality. According to S&WB management estimates, the recommendations could save \$13.8 million in annual operating expenses (of the \$100 million operating budget for 2001). In any case, many of these proposals would require action by other governmental entities – the City Council or the State Legislature – or would merely shift costs to the City. After excluding shifted costs, savings from changes that the S&WB could implement on its own amounted to approximately \$2 million.

### **3. Experience of Other Jurisdictions**

There are a number of examples of publicly operated facilities that have initiated cost reduction measures through reengineering projects. A sampling of the utilities and their

projected cost savings is summarized below in Table 9. Median savings were 20%, achieved over a median period of five years.

The savings estimates were provided by the individual utilities. Some have been achieved, some are in the middle of their programs. The savings or at least the hoped-for savings are being achieved from a combination of innovative workforce reductions, performance measures, organizational restructuring, cross-training of staff, automation and instrumentation, unattended operations, incentive-based pay and continuous quality improvement through targeted teams.

**Table 9**  
**Public Utility Reengineerings**

<b>Utility / Location</b>	<b>Savings</b>	<b>Years to Achieve</b>
Boston, MA (distrib & collec)	32%	4
Colorado Springs, CO (W/WW)	32%	3
Houston, TX (W Distr)	24%	4
King County, WA (WW)	14%	5
Los Angeles, CA (WW)	23%	5
Miami-Dade, FL (W,WW)	20%	6
Minneapolis/St Paul, MN (WW)	15%	4
Philadelphia, PA (WW biosolids)	55%	3
San Antonio, TX (WW)	18%	5
San Diego, CA (WW)	18%	6
Topeka, KA (W,WW)	17%	5
<b>Mean</b>	<b>24%</b>	<b>4.5</b>
<b>Median</b>	<b>20%</b>	<b>5.0</b>

W Water, WW—Wastewater

Utility reengineerings carried out apart from a competitive threat have been able to achieve O&M cost reductions of 10 to 15 % within two to three years of the exercise. However, some reengineering exercises conducted within a managed competition or in response to a genuine competitive threat such as the issuance of a request for proposals have pushed the upper end of the improvement range to 55 % with median savings of 20% implemented over a three to six year period. When reengineering savings have exceeded 20 percent, the utility's unit costs had been increasing or holding steady during the previous 5 years (rather than decreasing, as is the case with S&WB).

The reason for the difference in achievement is simple: reengineering is difficult enough as managers and staff are forced to rethink work habits and staffing levels developed over decades; it almost always eliminates jobs and reduces middle management control. A real competitive threat or competition raises the stakes for all participants to a level where the hardest choices are both more appealing and easier (politically and otherwise) to execute.

Case studies of reengineering in the following jurisdictions are presented in Appendix H: Philadelphia, PA Water Department; Colorado Springs, CO Water Resources Department; Fort Wayne, IN Utilities Division; and King County, WA Department of Natural Resources. Each case study focuses on the reengineering process and results, labor considerations and other key features.

#### **4. Anticipated Savings for New Orleans**

Of the dozen reengineering projects which IMG reviewed, savings ranged from 14% to 55% with median savings of 20% over a typical time period of three to six years (with a median of five years). IMG believes that S&WB could achieve O&M reductions of 20% for personnel costs and 10% for non-personnel costs (for a total reduction of roughly 15%). The total reduction of 15% is less than the observed median, reflecting IMG's assumptions regarding S&WB's governance challenges.

#### **5. Obstacles to Achieving Projected Level of Savings at S&WB**

While there are several ways of estimating the potential for performance improvement, particularly for operations and maintenance costs, whether the organization will be successful at reengineering is an entirely different question.

In pure theory, reengineering should be able to achieve the same results as contracting with a private entity for management and operations. In reality, there are numerous road blocks to the implementation of such plans. These include civil service rules, governance issues, and cultural issues. The implementation of a reengineering plan is a long-term process that requires a buy-in and concerted effort from the governing board, the management and employees.

Reengineering, whether conducted as an independent undertaking or as result of employees winning a managed competition, is most likely to succeed in political subdivisions with a self-perpetuating culture of excellence in which quality and professionalism are reinforced by every decision and procedure. Top performing or rapidly improving sewer and water utilities are characterized by strong empowered management and employees bound with management by a shared mission, sense of commitment and culture of performance improvement. These positive qualities are usually supported by the governing board's routine commitment to providing adequate funding of maintenance and replacement, independent contracting practices and consistent attention to customer service. This condition is not the case at the S&WB. Deteriorating facilities, lack of separation in the roles and responsibilities of the City and the S&WB and the high profile of electoral politics in Board management all contribute to an underachieving culture.

Reengineering initiatives either fail, or more often fail to endure, unless management is truly empowered and enabled to make the sometimes radical changes that are necessary. S&WB's management currently lacks the type of power that would be required to effect a reengineering. It would take a major change in culture and governance, and a high level of flexibility and cooperation on the part of the Civil Service Commission, to bring that about.

The challenge to reengineering is exacerbated by significant under-spending on equipment repair and replacement and by deferred maintenance. Process changes can be effective only if they are supported by the necessary technological investment

## **D. Competition**

### **1. What is Competition?**

Privatization runs the gamut from governmental entities contracting with private entities for limited services to the lease or sale of public property and operations to private entities. Competition, as the term is used in this report, refers to the competitive solicitation and procurement of services for a governmental entity.

When employees of a public entity, as well as private companies, are invited to submit bids, the process is called managed competition. The S&WB's proposed procurement is a managed competition for the outsourcing of either (i) the management of the S&WB, or (ii) the management, operations and maintenance of the S&WB.

When the employees win a competition, the situation is akin to a reengineering under the threat of privatization. In effect, employees are undertaking to implement a reengineering plan pursuant to a formal document. The document, called a memorandum of understanding, is not legally binding. If properly constructed, however, it serves as a road map.

If a private bidder wins the managed competition, the process results in a contracting out of services previously provided by S&WB employees. The result is a type of public-private partnership, in which the public entity owns and the private entity conducts the business. Although this arrangement is loosely referred to as a privatization, it is more accurately described as an outsourcing or contracting out.

Because an employee win is similar to a reengineering, many of the dynamics and issues described in that section will come into play. Different dynamics and opportunities are presented by a private contract. These are discussed below.

### **2. What Opportunities Does Private Contracting Offer?**

Privatization can provide a vehicle to overcome the roadblocks that stand in the way of effective reengineering. In a properly constructed privatization, contracting processes

## BGR

can be isolated from political influence. Once the facility is turned over to the private operator, the presumption is that the operator's bottom-line profit motive will drive it to select the best cost-quality balance in letting specialty subcontracts. Indeed, many private operators assume (after conducting due diligence) that part of the efficiency gain they will be able to achieve once they take over is greater cost-efficiency in contracted activities. Theoretically, competitive pressure then drives them to incorporate this efficiency gain into a lower overall bid price for operating and maintaining the utility.

Privatization can also provide a vehicle for achieving flexibility in staffing that is unavailable in the government framework. By eliminating cumbersome civil service rules, it provides the flexibility to cut staff and assign personnel to suit the operational needs of the enterprise. Once a private operator is selected, oversight of employee matters is usually limited to the enforcement of covenants embedded in the contract. These covenants can include payment of comparable salary and benefits, pension viability, and even recognition of a collective bargaining unit (through which employee rights are often protected).

Flexibility in employment decisions could have a significant positive impact for the S&WB. As noted previously, personnel costs account for approximately 49% of the budget. Despite reductions in the last five years, the number of employees remains unusually high compared to other utilities.

Table 10 compares S&WB with its peers. Due to S&WB's organizational structure, it is difficult to determine how many employees are associated with the water or sewer systems. The draft RFQ/RFP indicates that 829 employees will be moving to the private contractor's employ. There are other employees now in administrative and organizational units whose work could be apportioned to water or sewer functions. Using an assumption that number of employees in each system is proportional to that system's portion of the operating budget expenditures, BGR estimated 500 employees each for the water and wastewater systems. Even with a precise headcount, it is difficult to compare cities, as the systems, facilities and local circumstances vary widely.

Table 10

<b>Water Systems</b>				
<b>City/County</b>	<b>Service Pop. (000s)</b>	<b>Daily Gallons Sold (MGD)</b>	<b>Total Annual Revenues (\$000)</b>	<b>Full time Employees</b>
<b>New Orleans, LA</b>	497	68.2*	55,064*	500
<b>Colorado Springs, CO</b>	373	68.4	58,127	224
<b>Providence, RI</b>	593	66.2	34,667	225
<b>Toledo, OH</b>	450	63.7	24,163	244
<b>Wichita, KS</b>	363	60.1	30,780	201
<b>Wastewater Systems</b>				
<b>City/County</b>	<b>Service Pop. (000s)</b>	<b>Daily Gallons Treated (MGD)</b>	<b>Total Annual Revenues (\$000)</b>	<b>Full time Employees</b>
<b>New Orleans, LA</b>	497	103	48,767*	500
<b>Colorado Springs, CO</b>	373	45	20,152	223
<b>Providence, RI</b>	593	46	28,625	242
<b>Toledo, OH</b>	450	39	29,055	205
<b>Wichita, KS</b>	363	41	23,774	142

\*2000 CAFR, p. IV-8. S&WB employee estimate by BGR.

All other data from *Raftelis Financial Consulting 2000 Water and Wastewater Rate Survey*.  
Charlotte, NC: Raftelis Financing Consulting, PA, 2000.

### 3. Experience of Other Jurisdictions

In order to determine whether private contracting could result in significant cost reductions for the S&WB, IMG looked at the experience of other utilities that have privatized a portion of their operations. The information gleaned from the experiences of other cities indicates that there is a significant potential for savings.

Detailed case studies of five entities that sought proposals from the private sector or engaged in some form of managed competition are included in Appendix H of this report. Each of the five examples (Charlotte, NC; Birmingham, AL; Atlanta, GA; Camden, NJ; and Milwaukee, WI) has its own unique aspects; but there are some common threads that merit comment.

In each case, savings (some substantial) were realized through a competitive process. "Employee wins" resulted in 6% savings in Birmingham and savings of 22% below its then current operating budget in Charlotte, NC. With private contractors, Atlanta experienced a 40% savings, Milwaukee a 30% savings, and Camden, NJ a 24% savings.

The potential for savings through competition for any given utility will vary widely depending on the utility's specific situation.

Whether private companies won the competitions or existing staff, significant staff reductions have been made or are contemplated. United Water reduced staff in Atlanta by 22% through attrition or transfer to other company operations. In Milwaukee, United Water anticipated a reduction in the workforce of 38%; however, workers have not resigned or retired at the anticipated rate (perhaps because of a lucrative pension plan). US Water achieved a 40% reduction in staff in Camden through a voluntary buyout program.

Savings can be locked in with private companies through contract provisions and performance guarantees. This may not be the case with competitions won by employees or reengineering plans. Neither Charlotte nor Birmingham has effectively addressed the issues of performance guarantees or penalties for noncompliance.

Contracts can also contain provisions that shift certain risks ( i.e. inflation or market pricing ) from the public utility to the private operator. In Milwaukee, United Water is at risk for increases in utilities and chemical costs. US Water in Camden is at risk in a moderate inflation scenario (3% to 7%).

#### **a. Big city contracting can work**

Atlanta and Milwaukee clearly demonstrate that big city contracting-out arrangements can work and work well, resulting in both significant cost savings as well as favorable performance guarantees.

Atlanta's procurement, as a project for a major metropolitan area, had a very high profile in the market, which created a highly competitive climate. It was the type of project that the major contractors in the market seek out. United Water proposed and guaranteed a first-year operating fee of about \$21.4 million, which was 40% less than the city's operating budget for the system. While the fee has been adjusted for inflation since then, the basis of the fee has not been materially adjusted. Thus the savings that were projected are being realized. (It has been reported that United Water experienced some first year start-up problems that affected its own financial results but did not impact the fee charged to the city.) In addition, 417 of the system's 535 employees were transitioned to other jobs with equal or better pay, at the beginning of the contract. Others resigned during the first year, were terminated for cause, or transferred to other projects in the area.

Milwaukee Metropolitan Sewerage District's ( MMSD ) 10-year, \$350 million contract is the largest sewer utility contract in the US, followed closely by the sewer contract in Indianapolis. The contract resulted in just over 30 % savings in the operations and maintenance costs of the services contracted. Not long after the contract was signed, the MMSD announced a 16.5 % rate reduction and the build-up of a capital improvement reserve.

The savings and rate reductions in Milwaukee are particularly notable because the number of staff and the size of the budget at MMSD had been steadily reduced over the previous 5 years by about 4% per year. According to MMSD officials, much of this reduction was in anticipation of possible privatization.

Milwaukee's success also highlights the importance of and adequate, senior-level and highly-trained contract management staff and the value of routine performance reporting. Three to five staff are assigned full-time to manage the contract in addition to the executive office staff. The contractor submits monthly and annual performance and compliance reports, which are reviewed by contract manager staff, agency executives and the board.

### **b. Results will be project-specific, particularly regarding savings**

The potential for savings is heavily dependent on the conditions and circumstances that affect a specific utility operation, as well as the terms and conditions imposed upon a contractor (particularly regarding labor). The order of magnitude of savings achieved by one utility cannot be automatically assumed to be realizable by others. For example, Springfield realized a 10% savings while Atlanta's savings neared 40%. Both Charlotte and Birmingham surprised the contracting industry with the aggressive positions offered by the public staffs, which could only barely be met by the private bidders.

Although experienced advisors can estimate savings, actual levels will not be known until formal bids are received, whether from private contractors or utility staffs. While the cost and performance guarantees that have become customary in the field can be expected in virtually all contracting arrangements, the level of savings realized varies from project to project.

### **c. Bidder creativity achieves savings**

The experience of Camden illustrates that even when bidding constraints such as no layoff requirements are imposed, private bidders can craft creative solutions that benefit workers and at the same time enable the contractor to achieve significant O&M savings.

A key element of the pricing strategy for Camden was staff reductions. At the time of the bid, the water system employed 76 workers. The staffing plan called for 49 positions. One requirement of the RFP was that there be no involuntary staff reductions except for cause (i.e., no reductions for economic reasons). The contractor managed this risk by offering buy-out packages to workers who would voluntarily leave the system. By the time the contractor took over operations in January 1999, 31 workers had accepted the voluntary arrangement. The packages were funded through a \$1.2 million buy-out fund created by the company.



## 4. Anticipated Savings for New Orleans

Savings from a number of public utility managed competitions and contracts with private vendors are shown in Table 11.

**TABLE 11  
PUBLIC UTILITY MANAGED COMPETITIONS AND PRIVATE CONTRACTS**

<b>Project</b>	<b>Process</b>	<b>Savings</b>
Birmingham, AL (water)	Managed competition	Targets: 6% O&M cost reduction over 5 years; \$50 million capital savings
Charlotte, NC (water, wastewater)	Managed competition	22-36%
Jefferson Parish, LA (wastewater)	Managed competition	18% savings
Atlanta, GA (water)	Privatization	40%
Brockton, MA (water, wastewater)	Privatization	15%
Camden, NJ (water)	Privatization	24%
Houston, TX (water)	Privatization	43%
Houston, TX water distribution	Privatization	24%
Jersey City, NJ (water)	Privatization	36%
Milwaukee, WI (wastewater)	Privatization	30%
Springfield, MA (wastewater)	Privatization	10%
Indianapolis, IN (wastewater)	Privatization / managed competition	40%
	Mean	29%
	Median	30%

There are few data points for managed competitions in which employees win. They include Charlotte (22% reported by the City of Charlotte; 36% reported by Financial Advisor<sup>7</sup>), Jefferson Parish, LA (18%) and Birmingham, AL (6%). These savings have been met over one to five years. The available information is insufficient to support an assumption with respect to operating cost savings.

For the O&M privatization projects reviewed by IMG, savings ranged from 10% to 43%, with approximate median savings of 29%; contracts typically guarantee immediate costs reductions. For this scenario, O&M reductions of 38% for personnel costs and 20% for non-personnel costs were assumed to be achieved in the first year. This results in a blended cost reduction of approximately 29%, equal to the observed median. Non-personnel costs savings are higher than those under the reengineering scenario on the assumption of the private vendor enjoying greater economies of scale and advanced energy management techniques.

## 5. S&WB Experience with Contracting Out

In the early 1990s, the S&WB initiated contract operations at its two wastewater treatment facilities. In large part, this was a pre-emptive action intended to address many operating, air pollution and effluent quality violations cited by the E.P.A. as precursors to the Consent Decree. These difficulties arose because, as S&WB management reported, S&WB lacked the personnel necessary to properly operate wastewater treatment facilities that then included on-site pure oxygen generation at the East Bank, and incinerators at both the East and West Banks. In addition, the East Bank facility lacks fundamental redundancy in several key areas (*e.g.*, a single influent transfer channel to secondary treatment, bio-reactors that cannot be individually isolated, etc.). This makes the facility difficult to operate and maintain.

In December 1991, Professional Services Group (now US Filter Operating Services, Inc.) was selected from among three vendors submitting proposals. PSG proposed to save approximately \$1 million per year from the S&WB annual budget of \$6 million.

The contract was for five years. After the initial five-year term, the contract could be extended for successive one-year terms at the option of the S&WB. This option has been exercised each year since 1997.

According to S&WB management, the contracting arrangement was beneficial during the initial five-year term, yielding the projected savings and functioning cooperatively. More recently, however, the relationship with the contractor has become more contentious. S&WB management indicates that the situation has been complicated by uncertainty regarding USFOS's tenure since expiration of the initial contract in 1977.

---

<sup>7</sup> Verner, Liipfert, Bernhard, McPherson & Hand, Chartered. Financial Advisor Report: Rate Increase Mitigation Options Expanded Report, October 27, 1999, p. 3-57. Savings of \$4.3 million divided by the 1997 budget of \$11.8 million equals 36%.

## 6. Obstacles to Achieving Full Benefits of Managed or Private Competition

### a. Governance Issues

Just as governance problems can undermine an organization's reengineering efforts, they can limit its potential to benefit from privatization. To reap the full benefits of privatization, the procurement process must be fair and competitive, the contractual arrangements must be well designed, and a strong contract oversight program must be in place.

S&WB's governance issues are haunting the privatization process. Interest in the competition is at a lower level than might be expected for a transaction of this sort. In addition, the draft documents for the S&WB procurement indicate that the S&WB is intent on perpetuating in the private context the types of dysfunctional contracting practices that hamper it now.

### b. Contract Enforcement and Oversight

The proposed contract for management, operations and maintenance is complex and can present challenges for contract compliance. A poorly structured contract oversight program can bring a utility's governance problems into the contract. Every contract dispute can turn into an opportunity for political meddling and rectification of unrelated claims (*e.g.*, employee or subcontractor grievances).

Issues of maintenance and replacement responsibility are particularly common in O&M contracts. If enforcement and oversight are *ad hoc*, the contract's provisions ambiguous or its allocation of responsibilities easily subject to challenge, then disputes are likely to be frequent.

Cities well-regarded for their contract awarding and contract management practices manage to minimize the number of disputes and resolve those that do arise quickly and amicably. However, cities without such a tradition or experience are likely to be more dependent upon the contract's structure than their own good will in avoiding problems.

Listed below are the common elements of a contract oversight program that tend to reduce ambiguity and opportunities for conflict. These elements would also apply (albeit in a somewhat different structure) to an employee win.

**Performance Measurement:** An extensive, computerized performance measurement system integrates with the financial management system and rolls up subsidiary measures into the bottom line measures that are targeted in the contract.

**Reporting System:** The performance measures, which include both service quality and checklist maintenance and repair items, are tabulated methodically and reported

either in real time or frequently to the utility's contract managers. Additionally, the contract managers should have at least some real-time access to the reporting systems.

**Initial, Routine and Unscheduled Audits:** The utility and its performance measurement system are regularly audited by independent consultants with regard to its condition and internal systems and controls. An estimate of baseline condition and baseline performance are established before or during the transition period to reduce disputes arising from preexisting problems, and periodic changes to the condition are noted by the auditor, if not reported by the operator. Unscheduled audits also help ensure performance standards are met continuously.

**Incentives and Penalties:** The contract contains incentives and penalties that are clear, formula-driven (using the performance measurement data generated) and not prone to arbitrary application. Properly done, these help reduce disputes by making clear the consequences of achievement or non-performance of the contract's performance standards. Done poorly, incentives and penalties can increase the number of disputes.

**The Oversight Unit:** Most importantly, the contract oversight unit must be adequately empowered, staffed with professionals from multiple disciplines, funded, trained and relatively free of political interference. They should be empowered to inspect the facilities at any time and to make decisions regarding contract compliance with only limited consultation to elected officials. The unit must have executive powers and be governed by a charter and principles agreed to by both the city and the private operator.

It is vitally important that the S&WB establish a strong oversight unit, removed from political interference before the managed competition is implemented.

### **c. Change Orders**

A potential landmine in any contract, change orders can significantly alter the price or scope of the original contract. In a long-term contract, it becomes even more important that the scope of work be clear and inclusive. In a short-term contract it might be possible to wait out a disputed item or to put up with the extra cost of the change order for a few years. A mistake in writing a 20-year contract is obviously more expensive over the life of the contract than the same mistake in a five-year contract.

### **d. Memoranda of Understanding vs. Private Vendor Contracts**

If the S&WB's employees win the managed competition, the S&WB and its employees will enter into a memorandum of understanding. The memorandum of understanding is basically an unenforceable agreement that spells out the employees' responsibilities with respect to the water and wastewater divisions.

The memorandum provides less protection to the S&WB than does a contract with a private vendor because it does not provide for security and, as a practical matter, there is little available in the way of remedies for breach. The S&WB's only real recourse against the personnel is termination. In the event of termination, the Board takes back some control. It must continue, however, to deal with the same parties/personnel.

## 7. Application of the Public Records Act and the Public Bid Laws to a Private Contractor

Privatization raises a number of issues other than financial ones. One issue that warrants consideration is the impact of private contracting on the public's right to access records. Another is whether the public bids laws would apply on a post-contract basis.

### a. Public Records Laws

The case law indicates that the public records law will be applicable to some records of the contractor. To eliminate any doubt as to the extent of availability, the agreement should contain a commitment, on the part of the contractor, made for the benefit of the public, to make available, to the public, records relating to the S&WB, including, without limitation, subcontracts, invoices and records relating to the performance of services by the contractor and its subcontractors.

The issue of public access to records in the hands of a private contractor performing services for a governmental utility has recently been addressed by the Third Circuit Court of Appeals in *Burkett v. U.D.S. Management Corp.*, 99-82 (La. App. 3 Cir. 6/2/99); 741 So. 2d 838. In *Burkett*, the Parish District Attorney filed suit seeking access to customer, financial and service records pertaining to the Ebarb Water District that were in the custody of a private corporation that had contracted with the Water District to be the sole operator and manager of the utility service. The Court concluded that notwithstanding that a private corporation physically kept the records which were sought by the plaintiff, the records were in fact the records of the Water District and not those of the private corporation. As such, the Court concluded that they were public records to which public access must be allowed. Other opinions have confirmed that business or financial records of a corporation receiving public funds are public records from the time the public funds are received. See, e.g., *Lewis v. Spurney*, 456 So. 2d 206 (La. App. 4<sup>th</sup> Cir.), writ denied, 457 So. 2d 1183 (La. 1984) (holding that financial records of the Louisiana World Exposition, a private non-profit corporation which created and operated the 1984 World Fair were public records insofar as those records date from the time the corporation received state funds); La. Atty. Gen. Op. No. 93-780 (opining that records of the private company which operates the Regional Transit Authority (RTA) are public records to the extent they concern dealings with the RTA).

### b. Public Bid Laws

There is no Louisiana case law addressing whether a private contractor managing, operating and maintaining a public entity is subject to the public bid laws.

## **E. Measuring What Might Be Achieved**

### **I. Options Presented to S&WB**

The S&WB commissioned three reports from its Financial Advisor, which became the basis for the S&WB's privatization proposal:

- Rate Increase Mitigation Options, July 19, 1999
- Rate Increase Mitigation Options Expanded Report, October 27, 1999
- Management, Operations and Maintenance Procurement Plan, May 12, 2000.

In the first report, seven options were considered for saving costs and mitigating rate increases for sewer and water services:

- Status quo
- Status quo with reengineering consultant
- Managed competition competition with employees and private vendors allowed to bid
- Private management only
- Competition only for private operations and maintenance
- Private operations and maintenance, some private construction
- Other (sale, lease, concession).

Case studies were presented for seven cities, including three in which managed competitions had occurred. Conclusions, lessons and applicability to the S&WB are not made explicit. Financial issues are explored only from a legal perspective, e.g., tax-exempt bond status, private business use and IRS rules for management contracts.

The Expanded Report contains a brief financial analysis with four tables demonstrating rate increase requirements and savings potential. Some of the information sources, assumptions and methodologies are, however, unclear.

In March 2000, Black & Veatch performed analyses testing various combinations of rate increases, bond issues, and operations and maintenance savings. All of the scenarios cover the period 2000-2004 and include the assumption that EPA will fund \$10 million of construction per year in 2001-2003, an assumption that the S&WB does not use in its own capital budget.

## BGR

The scenarios describe 27 different combinations of rate increases, bonds issued, operations and maintenance savings and debt service coverage levels. However, it is difficult to relate the presumed savings to the seven substantive options or the ones that received attention in S&WB meetings and discussion (managed competition and private vendor only competition).

## 2. Financial Analysis of Options

Because of the limited utility of the analyses in the reports from the S&WB Financial Advisor team, BGR asked IMG to perform a new financial analysis. The purpose was to understand better and to illustrate the potential savings and potential rate impacts of three main scenarios:

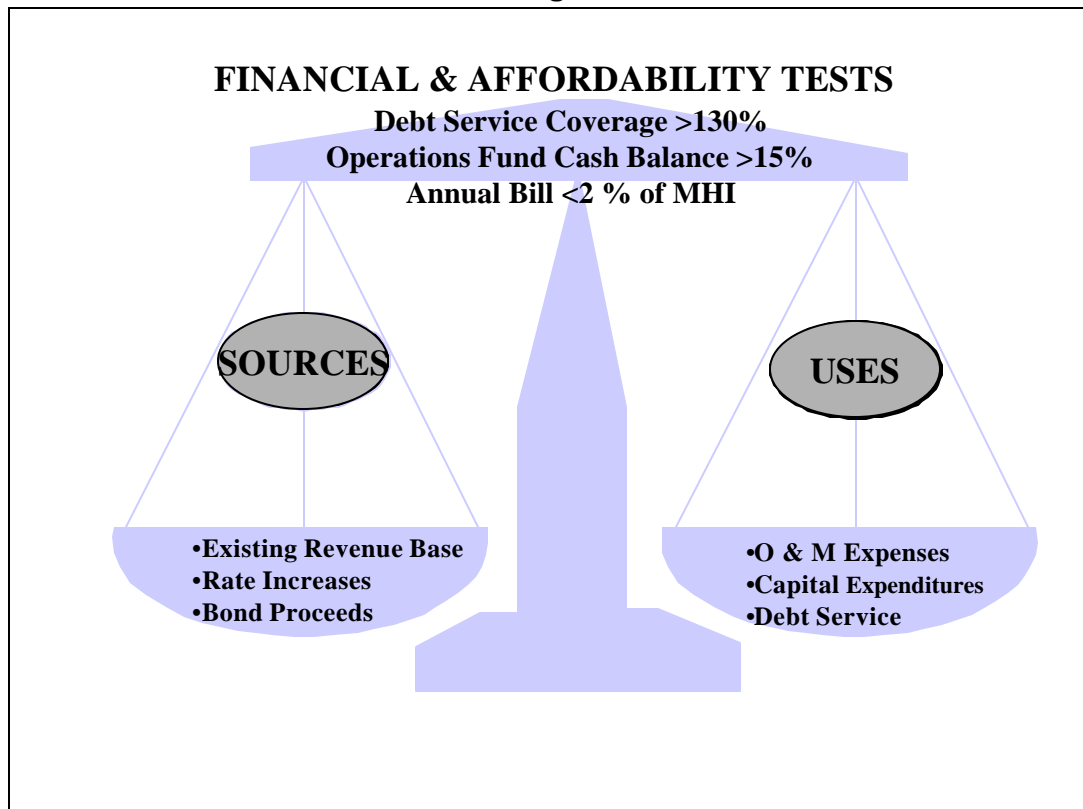
- Status quo or baseline
- Reengineering
- Private vendor.

### a. The Model

In assessing the financial implications of alternative performance improvement options (re-engineering or private vendor operation) it is first necessary to develop a base case or baseline financial model to which the options can be compared. IMG developed such a model based upon a variety of data obtained through its investigation on this project. In general, the model is a projection of cash flows for the respective departments within the S&WB (water, sewer and drainage).

Figure A below illustrates in general terms how the analysis has been approached. Major sources of funds include the existing revenue base, marginal revenues from rate increases and proceeds from bonds issued. Major uses of funds include operation and maintenance expenses, capital improvement program expenditures and debt service.

Figure A



Source: Infrastructure Management Group

This analysis uses previous estimates by S&WB management and consultants and applies assumptions to extend projections to 20 years. The narrow object of application of the model is to see how savings in O&M expenses impact rate increases. BGR's larger object is to see whether reengineering or competition can have the most positive impact on S&WB finances and customer rates.

In all three scenarios, revenues from existing rates and capital expenditures are largely the same. Since variances in rates affect bond issuance needs and since the amount of bonds issued affects debt service, these variables change throughout the scenarios. In general, IMG attempted to hold bonds issued at similar levels in the scenarios in order to test the pure impact of O&M savings on rates. At the same time, IMG sought to minimize rate increases in all scenarios.

The projections are subject to numerous assumptions based on empirical data from the S&WB and comparable public systems, as well as professional judgement. It should be noted that not even the S&WB attempts to project capital costs beyond five years or to prepare operating budgets beyond a year-to-year basis. Projections become even less predictable beyond five years, no matter how much false precision they embody. Rarely do utilities project capital programs beyond ten years.



Line item projections of operating revenues and expenses are notoriously incorrect in predicting results from both reengineering and competition. Not only are the systems and institutional environments highly complex, but combined with significant change factors through reengineering or competition the potential range of outcomes multiplies further.

**b. Financial Ratios and Affordability Test**

The IMG analysis adds two key elements that do not appear to have been included in the scenarios presented to the S&WB analysis: an operations fund cash reserve of at least 15 % and the EPA standard of annual utility bills less than or equal to 2% of median household income (MHI) for each utility (water and sewer).

When sources and uses are properly balanced, the following key financial and affordability ratios are met:

1. Annual debt service coverage exceeds 130%. The calculation is demonstrated below using sample numbers:

<b>Function</b>	<b>Sample Number</b>
Total Revenues from Charges	\$50,000,000
Plus: Interest Income	+ \$500,000
Plus: Misc. Revenue	+ \$1,000,000
Less: O&M	- \$40,000,000
Less: Provision for Doubtful Accounts	- \$500,000
= Net Revenue before debt service	= \$11,000,000
Divided by: Annual Debt Service	/ \$8,400,000
= Debt Service Coverage %	= 130%

The Board s existing bond covenants stipulate that additional bonds may be issued if (1) the average of the net revenues in the two years preceding the issuance of the additional bonds is at least 130 percent of the sum of the average debt service on the then outstanding and proposed bonds; and (2) the estimated net revenues for each of the five full fiscal years following the issuance of additional bonds (including the years of issuance) will be at least 130 percent of the Reserve Requirement. The calculation above is a simplified version of this more elaborate test used by the model.

2. Operations fund cash reserve exceeds 15%. The calculation is demonstrated below using sample numbers:

BGR

Function	Sample Number
Total Revenues	\$ 50,000,000
Less: Operating Expenses	- \$40,000,000
Less: Other Expenses	- \$500,000
Less: Debt Service	- \$8,400,000
Plus: Balance from Previous Year	+ \$7,000,000
= Net Revenue	= \$8,100,000
Less: Transfer to Construction Account	- \$2,100,000
= End of Year Operations Fund Balance	= \$6,000,000
Divided by: Operating Expenses	/ \$40,000,000
= Operations Fund Cash Reserve %	= 15%

A 15% operating cash reserve is commonly used by utilities as a fiscal requirement to ensure that adequate reserves are available to cover roughly two months of operating expenses in the event of emergency.

3. Average annual household utilities charges are less than 2.0% of median household income. While a measure of financial performance, the model also calculates the annual water and sewer bill for a typical residential customer and compares this to the median household income (MHI) as estimated for Orleans Parish. The MHI was estimated using 1990 Census data which established the 1989 MHI for New Orleans at \$18,477. By applying the annual change in the Consumer Price Index<sup>8</sup> to the 1989 MHI, an estimate of the current MHI for Orleans Parish MSA was calculated. The MHI is estimated at \$27,528 in 2001. Comparison of the annual water and/or sewer bill to the MHI does not measure the financial performance of the water or sewer departments. Rather, it is a barometer of affordability and is important in considering not only the indicated rate increases from the baseline plan, but also increases that might be warranted or calculated in looking at other performance improvement options. The EPA has established guidelines for measuring financial capability and affordability for water and sewer bills. The EPA has determined that annual utility bills less than or equal to 2% of MHI (for each utility system, or 4% total for water and sewer combined) provide a general indication that the service is affordable<sup>9</sup>.

Average household bill calculations for the three divisions are based on the following assumptions:

- Water: 10,000 gallons of water use per month and a 5/8" meter
- Sewer: 10,000 gallons of billed sewer flow per month and a 5/8" meter.  
Note: S&WB calculates and bills sewer use by multiplying water use by 85%; the assumption of 10,000 gallons was used to simplify calculations and does not change conclusions from the analysis.

<sup>8</sup> U.S. Department of Labor, Bureau of Labor Statistics.

<sup>9</sup> U.S. Environmental Protection Agency (EPA) Financial Capability Assessment Publication Combined Sewer Overflow: Guidance for Financial Capability Assessment and Scheduled Development, March 1997.

### **c. Implementation Costs**

Two non-baseline scenarios adds annual costs, either for consultant services or contract oversight and management. Reengineering usually requires external consultants to assist with strategy, implementation and ongoing tune-ups. Contract management requires dedicated multi-disciplinary staff. It should be noted, however, that under the competition scenarios, if S&WB aggressively pursues reengineering of the remaining organization, these implementation costs can be more than offset.

For each division, IMG assumed that reengineering targets are set and implemented over a five-year period. Consultant costs during implementation are estimated at \$500,000 per year per division; after implementation, ongoing consultant and internal monitoring costs are estimated at \$100,000 per year per division.

There is a wide spectrum of level of effort among agencies that have contracted all or portions of their operations. Based on a sampling of agencies that contract, it appears that every contract has at least one person who is responsible for administration and compliance. For some, there also may be an advisory or staff committee that meets periodically with the contractor to discuss contract issues (e.g., Jersey City). At the other end of the spectrum, some agencies have a highly evolved program for administration and compliance monitoring. One of the best examples of the latter is Indianapolis, with a staff of about 4.75 full-time equivalents (FTEs), a Quality Assurance/Quality Control (QA/QC) program for maintenance activities, and split-sampling to monitor effluent quality.

For the private vendor scenario, IMG assumed an equal level of effort for contract oversight, at \$500,000 per year per division over the life of the contract. For all three scenarios, the costs are not adjusted for inflation under the implicit assumption that some efficiency gains are accrued from year to year. It is also important to recognize that budgeting for contract oversight does not necessarily mean it will be executed properly; caveats noted elsewhere about the S&WB's governance challenges and the importance of contract oversight still apply.

### **d. Capital Expenditures**

While operations and other related expenditures are important to the overall financial plan and resulting utility bill, the most important factor influencing the water and sewer rates that customers will pay in the future is the capital improvement program. Accordingly, assumptions and sources for the capital program are described in some detail here. Other baseline assumptions are described in detail in the IMG worksheet notes.

Table 12 summarizes the projected water and sewer capital improvement programs, including the current year 2001 and the 20-year contract period. Water and sewer capital costs total nearly \$1.3 billion, and capital costs for drainage could well equal that amount over 20 years.

**Table 12**

<b>Projected Capital Improvement Program 2001-2021 (millions; nominal dollars)</b>			
	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Consent Decree		\$408.6	
Routine Capital Additions	\$134.2	\$236.2	<b>370.4</b>
Major Capital Additions	\$500.3		<b>500.3</b>
Total Additions	<b>\$634.5</b>	<b>\$644.8</b>	<b>1,279.3</b>

**Water Division**

Capital costs are segregated between routine and major capital additions. Routine capital additions include power, emergency reserve and general budget capital projects as defined by S&WB. For the five-year period 2001-2005 major and routine capital costs were drawn from the S&WB s Adopted 2001 Capital Budget and 2002-2005 Capital Program.

For 2006 - 2012 major capital costs reflect a water distribution system capital expenditure project of similar magnitude to the \$455 million sewer project. This assumption was based on discussions with S&WB management. The water capital program is assumed to begin in 2003, such that total major capital expenditures between 2002 and 2012 are \$455 million.

Over the balance of the study period, routine water system capital projects are estimated at \$6.2 million per year or 1% of the original cost of the water system at the end of 2005.

**Sewer Division**

All cost data used in this analysis relating to the Consent Decree project was provided by the Montgomery Watson Program Manager in a May 9, 2001 telephone conversation. The Consent Decree was executed in 1998, but capital improvements began in 1995 in anticipation of the settlement. The Consent Decree pertains only to the East Bank, though similar improvements are programmed for the West Bank. Costs for both East Bank and West Bank since 1995 to date are \$47.1 million and are projected to total \$455.8 million. The Consent Decree requires completion of east bank improvements in 2010. The West Bank program continues through 2017. Starting in 2011, an amount equal to 1% of the original cost of all sewer assets in place through 2010 is included annually in capital expenditures.

## BGR

The 2000 CAFR, Schedule 4, does not list any bond proceeds; however, Schedule 3 lists two Sewer Revenue Bonds: Series 2000-A and 2000-B for \$26.8 million and \$20.3 million, respectively (\$47.1 million total), as issued in 2000. The 2001 borrowing estimate of \$21.0 million is from S&WB management. As with the other divisions, subsequent year bond issues are inputs in order to achieve cash reserve targets and debt service coverage ratios while mitigating rate adjustments.

### **e. Debt Financing**

The baseline plan includes \$878 million of new debt to fund the anticipated \$884 million of capital additions (for the water and sewer department) over the 20-year contract or study period (2002 to 2021). As of December 31, 2000, the S&WB had \$127.6 million of outstanding debt (including current maturities) on a net asset (property, plan, and equipment, net of accumulated depreciation) balance of \$933 million. Currently outstanding debt is 14% of the net asset balance.

Under the baseline plan, the amount of outstanding debt to total net assets increases from 14% to a high of 51% (in contract years 6 and 7), before falling to 19% in contract year 20 (2021). Over the entire period, 72% of all capital improvements will be bond/debt financed. These statistics highlight what the bond rating agencies have already considered in rating the Series 2000-A Sewerage Service \$26.8 million Revenue Bond: the S&WB is facing a significant debt financing burden that will likely require a strong commitment to increasing rates. Nonetheless, the rating agencies still provided the S&WB with generally favorable ratings on this issue<sup>10</sup>, with one notable exception: the Moody's rating included a negative outlook due to the magnitude of the rate increases needed to sustain the projected capital program.

In assessing the past performance of the S&WB, the rating agencies have commented positively on the Board's ability to maintain healthy financial performance as evidenced by more than 2x (200%) debt service coverage, which is projected to remain relatively stable<sup>11</sup>. At question is the degree to which future bond issue ratings and ultimately borrowing costs may be negatively impacted under a plan that sets rates to achieve 130% coverage as compared to the stronger 200%. Alternative plans can be developed based on a 200% coverage threshold. However, if debt coverage were increased, absolute debt levels would decline and it would be necessary to raise rates more than currently illustrated in the baseline plans.

The ability of the S&WB to raise the capital needed for the Consent Decree projects as well as the other sewer and water projects is generally only constrained by the ability of the S&WB to raise rates. However, rating agencies are also cognizant of the affordability issues described above.

---

<sup>10</sup> Fitch IBCA A- rating, April 11, 2000, Moody's Investors Service A3 rating, April 7, 2000, and Standard & Poor's A rating, April 13, 2000.

<sup>11</sup> Standard & Poor's Credit Profile, April 13, 2000.

## **f. Global Assumptions and Tests**

The multi-year cash flow developed for each alternative varies from the baseline only in the projection of O&M costs and the impact this has on available cash, debt financing, rate adjustments and resulting debt service coverage and cash reserve ratios. All cash flow presentations meet the 130% debt service coverage and 15% cash reserve ratios. Under each alternative the total sewer and water bill is less than 4% of MHI in year 2021 and in no year does the total bill even approach 4%.

### **O&M Costs**

In an analysis dated January 4, 2001, CDM calculated the amount of sewerage and water division budgets considered part of this competition. The CDM analysis selected from the S&WB s detailed 2000 budget service components included in the competition scope of work. The total budget for those components as \$62,469,610 (which is rounded to \$62.5 million and used as the baseline for performance incentives in the management only agreement). For each alternative it was assumed that total O&M costs (sewer and water) are 48.7% personnel related and 51.3% non-personnel related.

The next step in estimating O&M costs under the alternatives was to apply estimated percentage cost savings to the adopted 2001 budget costs as divided between personnel and non-personnel categories.

Then savings assumptions were applied, as follows:

#### **For Reengineering**

Of the dozen reengineering projects which IMG reviewed, savings ranged from 14% to 55% with median savings of 20% over a typical time period of three to six years (with a median of five years). The reengineering scenario assumed O&M reductions of 20% for personnel costs and 10% for non-personnel costs (for a total reduction of roughly 15%) to be achieved uniformly over a 5-year period or 4% and 2.5% per year, respectively. The total reduction of 15% is less than the observed median, reflecting IMG s assumptions regarding S&WB s governance challenges.

The total budget to be reengineered is \$81 million, while the total budget to be contracted with employees or a private vendor is \$62.5 million.

#### **For Private Vendor**

For the O&M privatization projects reviewed by IMG, savings ranged from 10% to 43%, with approximate median savings of 29%; contracts typically guarantee immediate cost reductions. For this scenario, O&M reductions of 38% for personnel costs and 20% for non-personnel costs were assumed to be achieved in the first year. This results in a blended cost reduction of approximately 29%, which is equal to the observed median.

### **Other Assumptions**

Escalation factors for revenues and expenses were based on growth assumptions used by Black & Veatch over the period 2000-2004 in their 1999 Report on Operations and rate analysis of March 2000. IMG estimated base revenues (not including rate increases) escalated annually by 0.34% for water and 0.10% for sewer. Water department O&M expenses were escalated by 4.0% annually, while sewer department O&M expenses were escalated by 2.2% annually. General inflation was assumed to be 3%.

### **3. Results of Analysis**

Table 13 summarizes key indicators for each of the three alternatives as compared to the baseline analysis. Information on this table is for the combined sewer and water operations and focuses on the results/rates at year 2021 (or in the case of the debt financing indicator, for the entire period 2001 to 2021). For all indicators, the private vendor alternative results in the lowest rates and the least amount of debt financing.

Comparing the scenarios shows that average annual rate increases can be reduced from the baseline:

- by 14% for the reengineering scenario
- by 36% for the private vendor operation.

**Table 13  
WATER AND SEWER DIVISIONS ONLY  
KEY RESULTS**

	<b>BASELINE</b>	<b>RE-ENGINEERING</b>	<b>PRIVATE VENDOR</b>
Typical Residential Bill – Annual			
Year 2021	\$ 1,239	\$ 1,124	\$ 972
Difference from Baseline		-9%	-22%
Average Annual Change in Bill	3.49%	2.98%	2.24%
Difference from Baseline		-14%	-36%
Annual Bill as a Percent of MHI			
Year 2021	2.69%	2.44%	2.11%
Difference from Baseline		-9%	-22%
2001 to 2021 Capital Program (nominal)	\$1,279,304,489	\$1,279,304,489	\$1,279,304,489
Debt Financed	\$878,000,000	\$878,000,000	\$878,000,000
% Debt Financed	69%	69%	69%
Difference from Baseline		0%	0%
2001 to 2021 O&M Expenses (nominal)	\$2,315,994,959	\$2,019,039,125	\$1,537,774,991
Annual Average	\$115,799,748	\$100,951,956	\$76,888,750
Difference from Baseline		-13%	-34%

The following figures help illustrate the differences in the scenarios. Figure B Annual O&M Expenses, shows the importance of early or immediate cost savings. After 2008, the trend lines for all three change scenarios move together. The ranking of the scenarios does not change over time.



FIGURE B

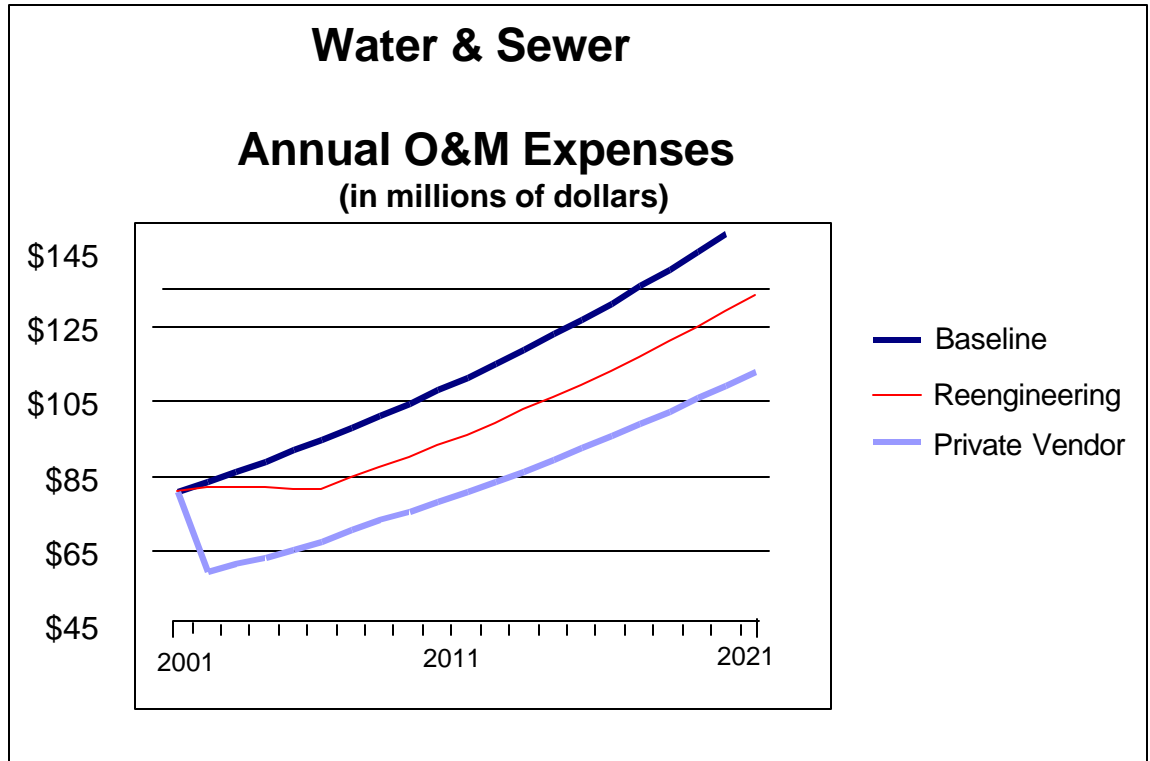
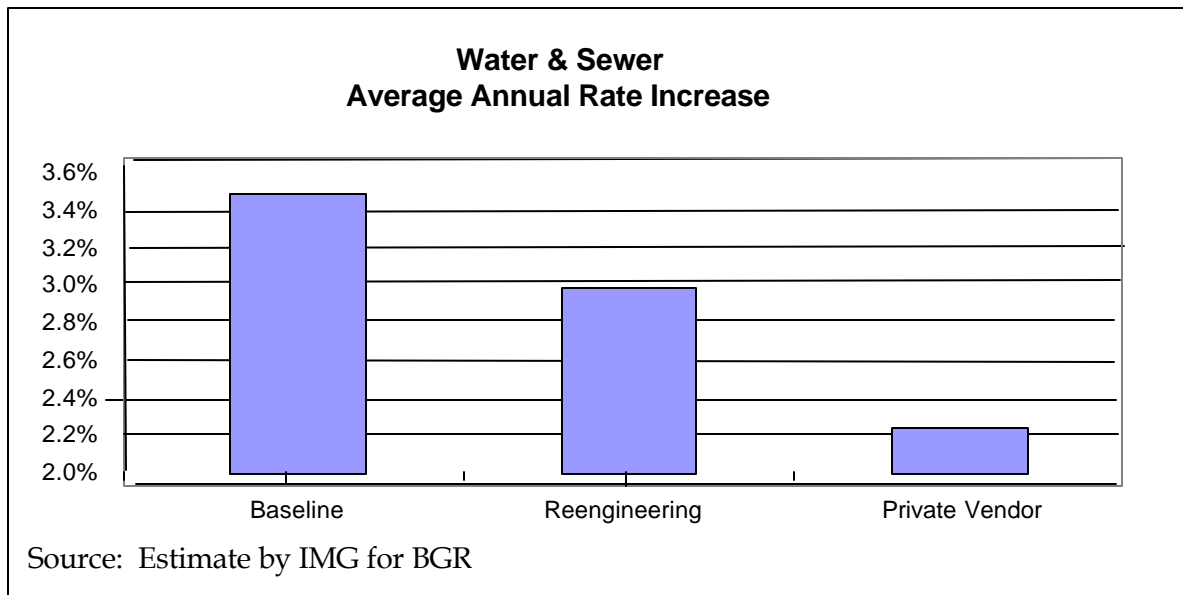


Figure C, Water and Sewer Average Annual Rate Increase, shows the rate increases over the 20-year projection period for each scenario (baseline, reengineering and private vendor).

FIGURE C



Rate impact analyses will differ according to the methodologies, assumptions and study periods. IMG selected what it believed to be the most reasonable methodologies and assumptions available. Their approach does not necessarily invalidate other analyses. In any case, the conclusions of this financial analysis are similar to the S&WB's Financial Advisor's: managed competition can be a better vehicle than reengineering for rate increase mitigation at the S&WB.

## **IV. RECOMMENDATIONS**

BGR's recommendations are intended to optimize savings for the ratepayers of New Orleans, attract bidders to the proposed procurement, and preserve improvements after a contract has been signed.

### **Ensure Fair Evaluations**

1. *Provide for Fairness and Transparency.* Include in the RFQ/RFP maximum points for each evaluation criterion and rigorous protocols for the qualification process and for the evaluation of bids by both the SEC and the S&WB. Clarify that the evaluation criteria (including points) apply to the S&WB as well as the SEC. Eliminate the SEC's ability to modify the evaluation criteria after the RFQ/RFP has been issued.
2. *Allow Adequate Evaluation Time.* Increase the time for review of proposals by the SEC from 10-11 days to three weeks. This procurement is too complex and important to hasten the process unnecessarily.
3. *Prepare a Written Record.* The SEC and the S&WB should prepare a written record of decision for the procurement process.

### **Ensure Integrity of Procurement Process and Contract**

4. *Require Binding Proposals Only After the Final RFP.* Modify the order of steps in the procurement process so that bidders initially submit statements of qualifications and comments on the proposed RFP and contract. Only after qualified bidders are identified and procurement documents finalized should vendors submit binding proposals.
5. *Eliminate S&WB's Right to Approve Subcontracts.* Eliminate from the proposed forms of contract the S&WB's right to approve professional subcontracts.
6. *Allow DBE Flexibility.* Give the contractor the right to contract with any qualified DBE, without interference from the S&WB.
7. *Prohibit Contacts with the SEC.* Amend the RFQ/RFP to prohibit contacts between the proposers and members of the SEC.
8. *Provide Public Access to Proceedings and Records.* Clearly state in the RFQ/RFP that all meetings of the S&WB and the SEC, including any portions of meetings where the professional competence of a person is to be discussed, will be open to the public. To further ensure that the legal exception for meetings to discuss the competence of a person is not invoked, add to the proposal forms an irrevocable requirement by the proposer that such

## BGR

discussion be conducted in public. Clearly state that all documents submitted by a bidder and all documents generated by the SEC or the S&WB in connection with the procurement will be made available for public review, unless the S&WB is specifically prohibited by law from releasing a particular document.

9. *Avoid Appearance of Conflicts.* Because of the appearance of conflict of interest arising out of a joint venture with a subsidiary of a potential bidder, have Camp Dresser & McKee recuse themselves from participating in the proposal evaluation. State the recusal in the bid document.
10. *Protect Access to Public Records.* Include in the contract a requirement that the contractor make available to the public, records and documents relating to the S&WB, including, without limitation, subcontracts, invoices and records relating to the performance of services by the contractor and its subcontractors.
11. *Require Additional Disclosures.* Modify the disclosure form to require disclosure of the following:
  - convictions for fraudulent activities in foreign as well as domestic jurisdictions;
  - all agreements, understandings and arrangements between any of (i) the proposers and their subcontractors, team members and affiliates and (ii) individuals or businesses, relating to the proposed transaction, including without limitation, agreements, understandings and arrangements for direct or indirect payments, loans, gifts, equity participations, contributions, compensation, the expectation of business or any other thing of value; and
  - all payments, loans, gifts, equity participations, compensation and other contributions (including campaign contributions), direct and indirect, by any of the proposers, their subcontractors, team members, or any of their affiliates to the Mayor, members of the City Council, members of the SEC, members of the S&WB, S&WB employees and consultants or their affiliates. An affiliate is an immediate family member or a business or entity in which a person owns an interest in excess of 25% or otherwise has a substantial economic interest.
12. *Restructure Procurement If Necessary.* Discontinue and restructure the procurement if fewer than three qualified bidders, exclusive of the S&WB s employees, submit initial proposals. Fewer than three bidders would suggest the procurement needs restructuring to attract more competition.
13. *Actively Solicit Competition.* Send a solicitation of interest letter to the known universe of bidders capable of serving as a primary contractor for the

proposed privatization. To make the solicitation meaningful, provide for a full due diligence period after it is sent.

## **Reduce Burdens on Bid Preparation**

14. *Reduce Bid Options.* Simplify the bid process by eliminating the requirements for Management Only bids. This option is much less likely to yield significant savings than the Management, Operations and Maintenance option and unnecessarily increases the burden on potential competitors in preparing bids.
15. *Reduce Bid Options.* Simplify the bid process by deciding on the retention requirements for employees before issuing the RFP rather than requiring alternative proposals. Clearly, longer retention periods reduce savings. The S&WB should decide upfront on the optimal balance of financial and community obligations and reduce the burden on potential competitors in preparing proposals.
16. *Allow Adequate Proposal and Due Diligence Time.* Allow a period of three months after the issuance of the RFP for bidders to prepare proposals. At a minimum, double the length of the visits to facilities for individual bidders. Because the facilities and services are extensive and complex, bidders need adequate time to become comfortable with the systems in order to reduce risk premiums and to prepare informed proposals.

## **Capture Performance Improvements**

17. *Provide for Contract Oversight.* Establish a strong contract oversight program, with adequate funding, technology and staffing, free from political interference. This is essential to ensure that cost savings and performance improvements are durable.
18. *Aggressively Pursue Reengineering.* After the competition, significant operating responsibilities, amounting to approximately \$38 million, remain with the S&WB. The S&WB must aggressively pursue cost reductions and performance improvements for these services, regardless of whether it contracts with the employee team or with a private vendor.
19. *Aggressively Seek to Reduce Capital Improvement Costs.* Because capital improvements represent such a huge area of expense, the S&WB should actively pursue implementing programs and delivery methods to reduce costs of such improvements.

## **Ensure Optimal Scope of Work**

20. *Expand Scope.* Expand the scope of the competition to include all parts of the Facility Management Division that serve the water or wastewater divisions. Including additional functions would increase the potential for savings.

## **Resolve Unaddressed Issues**

21. *Clarify Civil Service Commission Authority.* Clarify the powers of the Civil Service Commission with respect to the procurement before the RFQ/RFP is issued.
22. *Clarify Applicability of Public Bid Laws.* Before the RFQ/RFP is issued, carefully review the terms of the proposed O&M Agreement for compliance with the public bid law and make all necessary amendments to bring the proposed contracts into compliance with such law.
23. *Clarify Liabilities Relating to Streets and Damage from Drainage.* Clarify in the O&M Agreement which entity is responsible for damage to the water and wastewater systems caused by the drainage system, street failure or street repair. The division of responsibilities with respect to streets (e.g., under what circumstances each of the City, the S&WB and the contractor is responsible for costs of repairing a street) should be clarified in a tri-partite agreement among the City, the S&WB and the contractor.