Feasibility Analysis For The Potential Merger Of The City of Waukesha Wastewater And Water Utilities

Prepared by Black & Veatch

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BLACK & VEATCH CORPORATION

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September 3, 1999

Honorable Carol J. Lombardi
Mayor of the City of Waukesha
201 Delafield Street
Waukesha, Wisconsin 53188-3687

Dear Mayor Lombardi:

Black & Veatch is pleased to submit its report presenting the results of our analysis of the feasibility for the potential merger of the City of Waukesha's wastewater and water utilities.

On behalf of Black & Veatch, I wish to express our appreciation for the assistance provided to our review team by the City's representatives throughout the study. We would be pleased to discuss the report at your convenience. Should you have any questions, please do not hesitate to contact the undersigned at (212)-973-1339.

Very truly yours,

Edward J. Markus
BLACK & VEATCH Corporation

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1. Introduction

1.1 Study Objective

Black & Veatch was retained by the City of Waukesha and the Waukesha Water Commission to analyze the advantages and disadvantages of merging the water utility and wastewater system under the governance of a single entity. The purpose of this Report is to summarize the results of our analysis and to present our recommendations concerning the feasibility of merging the organizations. Our Report also focuses on opportunities to enhance the efficiency and effectiveness of operations with or without a merger.

1.2 Methodology

The methodology used to conduct the Study consisted of ten (10) principal steps:

1. The collection and analysis of data related to staffing, operations, operating expenses, debt service and revenues for the water utility and wastewater system;

2. Interviews with representatives of the City, the water utility and wastewater system;

3. Observations of work locations and practices of administrative, technical, clerical and field personnel for both the water utility and wastewater system;

4. Where practical, a comparison of financial, staffing and operating parameters with similar information from other water and wastewater utilities;

5. The identification and description of the advantages and disadvantages of each alternative;

6. Estimating the potential investments and the potential savings associated with a merger;

7. An assessment of the potential impacts of a merger on the quality of services;

8. Consideration of the perspectives of customers;

9. The evaluation of the potential implementation issues to be considered with a merger; and

10. The development of a five year projection of operation and maintenance expenses and capital costs with and without a merger of the utilities

1.3 Report Structure

This Report is structured in four (4) Sections:

1. Introduction
2. Evaluation of Water & Wastewater Functions
3. Analysis of Other Issues Relating to a Potential Merger
4. Conclusions and Recommendation

Following this Introduction, the Evaluation of Water & Wastewater Functions Section provides an overview of the water utility and wastewater system and the alternatives that were considered during this study. Section 2 also provides observations and recommendations regarding staffing, customer service and other matters affecting the work environment and water utility and wastewater system operations. Some of the issues that are discussed are facility-specific while others apply to multiple facilities and/or operations. Section 3 presents an analysis of additional issues pertaining to a potential merger of the two organizations. Section 4 provides our conclusions and recommendations.

1.4 A Note of Thanks

Representatives of the City of Waukesha, the Waukesha Water Utility, and the Waukesha Wastewater System were very helpful in providing background information, interview comments and suggestions for improvements. All personnel were generally very accessible and open in providing comments. Black & Veatch wishes to express its appreciation for the cooperation and assistance that was provided by all.

2. Evaluation of Water & Wastewater Functions

2.1 Overview

Water and wastewater services within the City of Waukesha are currently provided by two separate organizations. The water utility is owned by the City and governed by a Water Commission that operates under powers granted by the City charter. Employees of the water utility work for the Commission. Sewer services and wastewater treatment are provided by the Department of Public Works ("DPW") of the City with oversight provided by a Board of Public Works (the "Board"). The wastewater system is also owned by the City and the employees of the wastewater system work for the City. Both organizations are supported primarily through revenues generated by separate user charges that are principally based on water consumption.

The options that we evaluated ranged from a full merger of the water utility and the wastewater system to keeping the current separate organizational structures. The merger options included: 1) moving the wastewater organization into the water utility, and 2) dissolving the current water utility and moving the water system organization into the City as a unit of the Public Works Department. The latter option was examined in a 1996 study prepared by David M. Griffiths and Associates, Ltd. Presumably, under this second merger option, water utility personnel would work under the direction of the Director of DPW and would be subject to City requirements and policies. In the case of moving the wastewater organization into the water utility, a combined water and sewer utility could be created under the direction of a Commission and a Director, similar to the current water utility structure.

As a variation to the preceding options, we also considered the possibility of making a merged utility independent from City, either in the form of a district or public authority. For example, an independent public entity could purchase water assets and/or wastewater assets from the City and have the ability to separately issue revenue bonds without involvement by the City. This variation raises interesting issues with regard to governance, financing, regulatory perspectives and other matters.

The water utility and the wastewater system currently share in the delivery of a limited number of services. The principal example is the billing and collection of water and sewer user charges which is handled by the water utility. An alternative that we considered is to increase the sharing that takes place between the organizations without formally merging the enterprises. This alternative is based on the premise that there are opportunities to improve the existing operations through enhanced cooperation and that such opportunities may not necessarily require a merger in order to be effective.

The final option that was considered is no action; i.e., the existing separate organization structures should be maintained and no action taken with respect to a merger. While this alternative represents no merger, it does include options for enhancing the performance of the systems.

2.2 Current Organization of the Water Utility and Wastewater System

The water utility is governed by a Water Commission which is composed of five members: the Mayor, one alderman chosen by the City Council for a term of one year, and three citizens chosen by the City Council for 3-year terms, with one term expiring on October 1st of each year. The Commission Council member relinquishes his/her seat upon ceasing to be an alderman. The Commission members elect a president and secretary from their members and also appoint a General Manager who is responsible for the management of the water utility. The General Manager is supported by a Human Resource Assistant and a Secretary. There are five (5) organizational units in the water utility: water supply; distribution system; administrative services; field services; and technical services. Exhibit 1 illustrates the current structure.

The wastewater system is managed by the DPW and is governed by the Board. The Board consists of six members: the City Attorney, City Comptroller and four members selected by the Mayor and confirmed by the City Council. Two of the appointees are members of the City Council and two are citizens of the City. Each year the Board selects a President from its members and the City Clerk is the Board's non-member Secretary. The Board is responsible for the wastewater system that encompasses the wastewater treatment plant and the collection system. In addition, all other public works-related activities in the City are under the purview of the Board.

A Plant Superintendent, reporting to the DPW Director and supported by an Administrative Technician, manages the wastewater treatment plant. The plant has four functional areas, which are managed by three supervisors: a Process Control Supervisor; a Maintenance Supervisor (who is also the safety committee liaison) manages plant maintenance; and an Industrial Waste Specialist who supervises industrial waste management. Exhibit 2 illustrates the organization structure for the plant. The Streets Division of DPW is responsible for the maintenance and repairs of the sewer collection system, which includes storm sewers and sanitary sewers. Although the Streets Division personnel work with both types of sewers, the definition of the wastewater system includes the sanitary sewers of the City but does not include the storm sewers.

Parts 2.3 through 2.8 of this Section review the major functional components of each utility. Our observations regarding current conditions, opportunities for improvement (where applicable) and the potential impacts of a merger are presented for each component.

2.3 Administration

A General Manager has overall responsibility for the management of the water utility. Most day-to-day administrative functions of the utility are assigned to the Administrative Services Manager. The administrative services unit performs various duties, which include accounting and budgeting, the handling of customer complaints, public relations, customer service, billing and collection. The customer service and billing and collection functions are discussed further in Section 2.4. The water utility also has a Human Resource Assistant who provides a variety of personnel-related services.

The wastewater system is managed by the Director of DPW and the Superintendent of the wastewater treatment plant, with support from an Administrative Technician who coordinates the various support tasks performed by City Departments. Departments that offer support include: the Comptroller's office, City Attorney, City Engineering, and Personnel.

Merger Issues

The Director of the DPW advised Black & Veatch representatives that the time that he devotes to managing the system is not charged to the wastewater system. In addition, the Director's position would remain if his wastewater system responsibilities were taken away. Thus, while it may be possible to free-up some of the Director's time if a merger were to occur (and a General Manager took over responsibility for both water and wastewater services), there would be no apparent dollar savings due to joint executive management of the utilities. Alternatively, under the option of merging the water utility into the wastewater utility, we believe that it would be impractical to expect the DPW Director to manage both the water system and the wastewater system while retaining all other DPW Director responsibilities.

The two systems have overlapping functions and staff in the areas of accounting and human resources. The water utility has one person performing human resources work and two people providing accounting and related services. The City is charging the wastewater system $48,368 in 1999 to perform check processing, general ledger, purchase order processing, budget preparation and other accounting-related services. The City is apparently not charging the wastewater utility for activities of the Treasurer and the Personnel Office. The estimated annual cost of such services as provided by the City is $20,000 annually. If a merger were to take place (regardless of which of the two options were selected), it should be possible to achieve some savings in personnel expenses for administrative services provided that the merger includes the use of a single accounting system and common personnel policies for the two systems. If the two systems shared the delivery of these services without a merger, we would be less confident of the ability to achieve savings since separate accounting systems and different personnel policies and procedures will likely limit the benefits of consolidation.

2.4 Customer Service & Billing/Collection

The water utility has approximately 16,000 customers. Personnel of the Administrative Services Unit provide customer service, and billing/collection of user charges for both utilities. Costs associated with this function are allocated on a 50/50 basis between the two utilities. The water utility currently charges the wastewater system approximately $423,000 per year for billing and customer service functions. Items included in the allocation include the salaries and benefits of meter and customer service staff; telephone charges; tax charges; and the depreciation expense of water meters. Residential customers are billed on a quarterly basis and industrial customers are billed monthly. The average age of meters in the system is five (5) years and most meter reading is conducted remotely by telephone. Based on the comments contained in the report prepared by David M. Griffith and Associates, Ltd., it appears that the water utility has developed a strong emphasis on customer service.

The use of telephone readings for water meters represents the state-of-the-art in the water industry; minimizing the need for meter readers and maximizing the ability of the utility to provide information to customers on their water use. The reported collection rate for water and

sewer bills is approximately 98% on a current basis. Unpaid water and sewer bills are referred to the City, which incorporates the overdue charges as part of the tax bills. When charges and tax bills are not paid to the City they are turned over to the County which becomes responsible for paying the full amount that is overdue to the water utility and wastewater system and collecting the overdue amounts through liens and other collection processes. This mechanism is excellent from the utility perspective by providing cash to the utilities and placing the burden on the County for the recovery of the funds.

Merger Issues
Since these services are currently being provided by the water utility on behalf of both utilities, a merger would not provide any additional savings.

2.5 Water Supply and Wastewater Treatment facilities

The water utility is supplied with ground water from eight (8) active wells providing 8-10 million gallons per day (MGD). The system has a capacity of 17 MGD and includes 1.4 million feet of mains (approximately 265 miles). The water treatment process: fluoridation, the addition of sodium silicate as a sequestering agent for iron and gaseous chlorine for disinfection. A manager supervises the water supply unit with six (6) staff members responsible for water pump maintenance and repair, pump station maintenance, and pump and water control and monitoring. Monitoring and control of the water distribution system is performed by a recently upgraded SCADA system that monitors all operating systems on a remote basis thereby eliminating the need for 24 hour per day oversight of the system. The water system is unattended during the nighttime hours; in the event a problem occurs, the computer system will alert key individuals. The computer system allows key personnel to dial-in remotely on a computer to assess distribution system conditions and to make changes in system operations. As in the case of the telephone read devices for water meters, the SCADA system utilized by the water utility is exceptional. The practice of having minimally attended or unattended facilities (with appropriate monitoring and control facilities) is a best practice in the utility industry. Examples of mid to large-range utilities having minimally attended or unattended facilities include: Phoenix, AZ; Greenwich, CT; Denver, CO; Washington Suburban Sanitary Commission, Montgomery & Prince Georges Counties, and Piscataway, MD.

The wastewater treatment plant is designed to treat 18.5 MGD and currently handles an average flow of 10 MGD. The activated sludge treatment process with fine bubble diffusion is used at the plant. Disinfection is provided by gaseous chlorine and dechlorination is achieved through gaseous sulfur dioxide. Solids are dewatered using belt presses with the addition of polymers. Presses are operated on a 24-hour per day basis for five days. The wastewater treatment plant employs a contractor to dispose of the processed, dried solids through land application. The Plant Superintendent manages the plant with a supervisor and eight (8) Operator II personnel responsible for plant operations. Operator I positions are utilized to support Operator II positions for vacation and sick leave purposes. A supervisor and eleven (11) Operator I personnel are responsible for the maintenance and repair of the plant, pump stations and facility grounds. The wastewater system has thirty (30) pump stations. The plant also has three (3) laboratory technicians of which one is a part time position. An Industrial Waste Specialist and Sampling Technician complete the staffing of the plant.

In the absence of a merger, there are opportunities to reduce salary and overtime expenses at the wastewater treatment plant through the installation of new monitoring and control equipment at the plant and pumping stations. Increased automation will reduce the need for physical checks and the need to walk to plant locations or travel to pumping station sites to make changes. The wastewater treatment plant currently has two people on duty 24 hours per day, seven days a week, to monitor plant operations. Many utilities perform oversight with remote monitoring and control equipment with an on-call system to bring operators in only when necessary. System alarms are sent to a receiving location and operators are notified when an emergency occurs. The water utility has made excellent use of remote monitoring and control systems. In discussions with water utility representatives, it was indicated that they had the expertise to work with wastewater system personnel to plan and install remote monitoring and control equipment for the wastewater system.

The technical expertise of the water utility personnel can be utilized by both utilities in any future organizational structure. While it may be difficult to have the wastewater treatment plant unattended for any length of time, the use of automation should enable one person to monitor both plant operations and the pumping station operations during the nighttime hours and on weekends. A rough estimate of the cost of the automation is $500,000 to $2 million, depending on how much work is done internally and how much is contracted-out. This effort may enable the wastewater system to eliminate at least two Operator II positions over time, but may not be cost effective if costs are in the upper range of our estimate. A more thorough evaluation of the automation systems of the wastewater system and the capabilities of water utility technical staff would be needed to determine the financial feasibility of an automation upgrade.

Merger Issues

The preceding savings can be achieved in the wastewater system with the cooperation and assistance of water utility representatives with or without a merger. If a merger were to occur, we believe that no additional savings will be achieved in the areas of water supply and wastewater treatment. The reason for this conclusion is that, with the exception of the opportunity noted above, little time is spent in overlapping functions (e.g., monitoring and checking facilities). The water utility does not visit each of its field locations on a daily basis and no one observes the facilities at night. In addition, again with the exception noted above, staffing levels appear very reasonable in these areas. In the areas of expenses other than labor, the principal purchases of each unit appear to be sufficiently different so as to argue against significant savings in such costs.

2.6 Field Personnel (Distribution System & DPW Sewer Crew)

The Distribution System unit of the water utility is responsible for water main repair, replacement, and maintenance. A manager oversees eight (8) construction workers and equipment operators in the unit. The unit had 16 employees at one time and has been downsized considerably by requiring developers to be responsible for the installation of new mains in their developments and through the contracting-out of selected work.

The DPW sewer crew is responsible for the repair and maintenance of the sewer collection system. The crew's staff includes a foremen who supervises a mason crew leader with five (5) masons and a sewer crew leader with six (6) sewer maintenance workers. Responsibilities of the

sewer crew include sanitary and storm sewer flushing, moderate landscaping, excavation, and the repair and construction of sanitary and storm sewers. During the winter, members of the sewer crew perform routine vehicle and equipment maintenance tasks and operate snow removal equipment for the City. Based on our interviews with members of the sewer crew, it appeared that they spent approximately 50% of their time performing duties outside the sanitary sewer area such as the repair and maintenance of storm sewers, raking leaves, snow plowing and other DPW-related activities.

Merger Issues

The DPW sewer crew devotes a considerable amount of its time to performing DPW-related duties that are not sewer-related. If a merger were to take place, only 5-6 crew members and one supervisor would be allocated for the sewer system based on the 50% allocation factor.

While it may be possible to save one to two positions through a merger, we hesitate to predict significant savings since the number of crew members is less than the comparable positions in the water utility and represent just two crews (if everyone is present that day, otherwise a crew will be understaffed).

From the City's perspective, if access to the crew members and their supervisor that would be transferred to a new combined utility is lost, it may require the City to hire additional personnel to fill the void of the departing personnel. Since presumably the above-described crews will not be available to work 100% of their time when DPW needs help in non-water and wastewater areas.

The manner in which DPW is currently operating achieves efficiencies by sharing the crews among multiple services and no additional benefits can be obtained from a merged environment.

2.7 Engineering

The manager of Technical Services supervises engineering tasks in the water utility with the assistance of three (3) support staff members. The unit is responsible for plan review, minor design, PC support, development of a Geographic Information System ("GIS") main identification system using City base maps, and construction inspections. Mark-out and construction inspection functions of the utility are performed by contractors and monitored by the Technical Services unit staff. Vendors provide computer hardware and software support. Most major engineering services required by the water utility are obtained through contractual arrangements with various engineering firms or provided by developers when they are constructing their projects. Staff members also coordinate sewer and water main repairs between the DPW and the utility and arrange for joint water utility/DPW construction bidding.

The DPW provides engineering services for the wastewater system. Day-to-day services include the review of sewer construction plans, contract reviews, and the coordination of wastewater projects with the water utility. The services that DPW engineers provide to the wastewater system are not charged back to the operating expenses of the system. However, when DPW engineers are assigned a specific wastewater capital project, the cost of their services is tracked and charged back to the particular capital project.

The City engineering unit within DPW provides design and capital project management for various City projects and is also responsible for the development of a City-wide GIS system. The water utility is developing a mapping system addressing water utility needs utilizing City base maps. We recommend that one entity take the lead in implementing the GIS system including the mapping of all utilities. Since the engineering unit of DPW has City-wide responsibility and a broader focus, it would seem appropriate to consider having the Technical Services unit of the water utility merged with the engineering unit of DPW. The combination can occur in a combined utility or in separate organizations.

Merger Issues

The recommendation offered above is to merge the engineering support functions of the water utility and wastewater system regardless of whether or not an overall merger takes place. In addition to the advantage of having the engineering support personnel for water and wastewater working with the same tools, it may provide the opportunity for water personnel to broaden their skills by being involved in other non-water projects being developed by the DPW engineering unit.

2.8 Support Services

The water utility provides the City with a tax equivalent payment of $840,079 per year. The water utility also receives and pays for various support services from the City. The services and charges as outlined in the water utility FY 1999 budget are provided below:

Street Opening Charge	$178,600
Information Services Charge	10,398
Vehicle & Equipment Maintenance	55,000
Printing & Supplies	5,000
Treasurer & Other	1,300
Total	**$250,298**

The wastewater utility does not pay the City a tax equivalent payment. However, it also receives various services from the City and pays for those services. The costs associated with these services were derived from the FY 1999 budget and allocated to the wastewater treatment plant budget by the City Comptroller's office as follows:

Accounting Fees	$48,368
Telephone Charges	14,372
Information System Fees	95,000
Property Insurance	42,087
Auto Insurance	5,718
General Liability Insurance	27,358
Sewer Maintenance Crew Labor	266,037
Independent Audit Fee	3,800
Print Shop Services	3,600
Workers Comp. Insurance	46,733

Vehicle Maintenance/Fuel & Oil	75,000
Total	**$628,073**

In addition to the above, the engineering unit of DPW charges between 4% and 12% of the project costs for engineering work on individual capital projects. The costs identified for Sewer Maintenance Crew Labor reflects a 75% allocation factor for the wastewater system. Our interviews with City representatives indicated that a 50/50 split would be more appropriate based on the work being performed. Thus, it is possible that the wastewater system is overpaying the City by $89,000 per year.

The City also provides other services that are not charged back to the wastewater treatment plant. The services and an estimate of the costs involved are provided below:

Treasurer's Office	$2,000
Engineering Activities	20,000
Personnel Activities	18,000
City Attorney	7,500
Total	**$47,500**

The wastewater system provides services to the City that are not charged back to the City. The services and their approximate cost include:

Street Sweepings Disposal	$12,000
Use of Sewer Flushing Trucks	17,000
Maintenance and Repair of City Facilities	80,000
Total	**$109,000**

Based on the above analysis, the wastewater system appears to provide more than $61,000 in additional services to the City than it receives in the value of free services of the City. Adding the $89,000 in potentially overallocated costs for services yields a net benefit to the City of approximately $150,000 in the exchange of services and funds.

Merger Issues

Many of the services that the City currently provides to the wastewater system will continue to be necessary in a merged environment. Several questions arise such as who will provide the services in the future; i.e., would the City continue to provide such services to the wastewater portion of a system that is merged into the water utility or would the water utility provide such services and reduce the reliance of the wastewater portion on support services by the City? If a merger were to proceed in the other direction (i.e., folding the water utility into DPW), how would support services be provided and does it affect the tax equivalent payment from the water utility to the wastewater system? Additionally, is the cost of support services (regardless of the source of such services) significantly impacted by a merger?

Taking the last question first, several of the support services items in the wastewater budget would likely be unaffected by a merger. The potential changes in insurance costs would likely be nominal (as discussed further in Section 3 of the Report). Vehicle maintenance is provided by the City to both the water utility and the wastewater system at the present time; thus, no changes in the allocated costs would be likely. The allocated costs for Sewer Maintenance Crews reflect the actual expenses of the unit (adjusted as noted earlier for the 50/50 allocation of time between sewer work and general City work). The only significant differences in support costs that appear between the water utility and the wastewater utility are the costs of accounting services and information system fees.

Additional questions relating to support services include whether the water utility would be obligated to pay the City a tax equivalent payment if it were merged into the wastewater system? Our current understanding is that this issue may be at the discretion of the parties and, therefore, may not be a concern for the City. Alternatively, would a tax equivalent payment be required of the wastewater system if it were merged and became part of the Water Commission? Our understanding here is that a payment would not be required from the wastewater system if a full merger into the Water Commission took place unless the City Council decided to require the payment. After a review of the methodology utilized in determining the tax liability of the water utility a preliminary analysis shows that the wastewater treatment plant would have a tax liability of as much as $1.48 million annually. This could provide a benefit to the City along with an offsetting significant expense to wastewater ratepayers. In addition, would the relationship between the City and the wastewater system have to be made "financially neutral" under a merger into the Water Commission? We believe that the answer to this question is yes since the State has advised us that wastewater ratepayers could appeal the basis for wastewater charges to the State of Wisconsin Public Service Commission (the "PSC"), even if the PSC does not regulate the wastewater system. This could act to the detriment of the City with an offsetting benefit to wastewater ratepayers.

2.9 Results of Benchmarking

Black & Veatch reviewed the operational performance indicators for the Waukesha water and wastewater systems and benchmarked the data against a database containing over 100 records each of both public and private wastewater systems throughout the country. Indicators of performance are often numerical in nature and form the basis for what is called metric benchmarking. Black & Veatch selected candidates for comparing Waukesha on the basis of the size of the respective water and wastewater facility, expressed in terms of their Average Daily Flow (in MGD). After selecting a group of facilities for review, these utilities were compared for their operating and maintenance expenses (O&M), full-time equivalents on staff (FTE), and their average employee salary. The results of our benchmarking efforts were taken into account in our recommendations regarding operator staffing for the wastewater treatment plant. Exhibits 3 and 4 illustrate the results of our survey of benchmarking partners.

3. Analysis of Other Issues Relating to a Potential Merger

3.1 Overview

This Section of the Report highlights other issues to be considered in evaluating the feasibility of a merger of the water utility and the wastewater system. The issues are not presented in any particular order but are intended to review important factors that could affect the decision-making on whether or not to proceed.

3.2 Salaries and Wages

The salaries and wages of employees in the wastewater system differ from the compensation provided to employees of the water utility. Personnel from each system as well as representatives of the City advised us that water utility personnel were generally paid more than comparable employees in the wastewater system. While the position titles and job descriptions for employees in each system are somewhat different, a study by Davis & Kuelthau in October 1998 compared the range of hourly salary rates for several relatively comparable position titles. The study results showed that the average hourly salary rates (computed using the average of the minimum and maximum rates presented in the Davis & Kuelthau study) were generally higher in the water utility compared to the City's salary rates which would apply to the wastewater system. One exception that was noted was in the salaries for engineering personnel that were lower on average compared with the City. This may be attributed to employees in the City engineering department having more experience, more years of service, or a combination of both.

The issue of salaries is very important to water system personnel. A salary decrease to achieve equalization will create morale problems in the water utility. Maintaining a salary differential could create other morale problems. It is our expectation that a combined water and wastewater utility would have to increase the salaries of all job classifications to the higher of the salaries currently offered. The impacts of a salary equalization process can be estimated by applying the typical percentage differences (approximately 7%) times the salary base for the wastewater system (since it is generally less than the water utility). Using this approach, we estimate that an aggregate increase of $90,000 to $100,000 in the base salaries of the wastewater system personnel may be required to achieve an equalized salary structure. This increase could be phased in over a period of time; e.g., four to five years. Our cash flow analysis assumes that a five year phase-in takes place at the rate of 20% of the differential each year. A precise number can be calculated through a detailed analysis of each job classification and the positions and salaries of existing personnel within each utility. The amounts being added represent an incremental cost to the wastewater system under a merged water and wastewater utility.

3.3 Fringe Benefits

The Davis & Kuelthau report compared the benefits provided to employees of the water utility compared to those provided to wastewater system personnel. The number of holidays and sick days are the same in each system, although the maximum number of vacation days per year is higher (30 vs. 25) in the water utility. The water utility provides two days of paid personal leave whereas personal leave is without pay in the City. Other differences include: overtime is

computed for daily time over eight hours in the wastewater system versus time over 40 hours per week in the water utility; the City provides for longevity up to $250 annually while the water utility has no provision for longevity; and the City pays 100% of health and dental insurance versus 95% for the water utility. On the surface, the differences in the benefits package for each utility appear relatively minor. The cost per employee that we computed for benefits is much higher for wastewater system personnel compared to the water utility.

3.4 Financing

One consideration in evaluating the feasibility of a stand-alone water and/or wastewater utility is the impact on the credit rating of the community and the water and wastewater systems. Several municipalities that were not highly rated spun off their water and/or wastewater systems by establishing separate revenue bond-issuing enterprises. The resulting credit rating of the separate enterprises could actually be higher than that of the underlying municipality. The rating agencies also generally looked favorably on the municipality for undertaking such a separation.

Bonds have historically been issued by the City for the water utility and the wastewater system, backed by the revenues of the respective systems. There is no City backup pledge for these securities. The current ratings of Moody's Investor Services ("Moody's") for City, water utility and wastewater system debt are as follows:

City General Obligation Bonds	AA2
Water Utility Revenue Bonds	AA3
Wastewater System Revenue Bonds	A1

Based on the rating system utilized by Moody's, the water utility has a slightly lower rating than the City and the wastewater system is rated slightly lower than the water utility. However, each of the three ratings is good and the difference between the water rating and the wastewater rating is minor. Based on the current ratings, if the water utility and the wastewater system were to be merged, the incremental benefit in the bond rating would likely be minimal or none. Thus, the upside potential in the form of lower interest costs on future borrowings attributable to a merged utility would be minimal as well.

3.5 Cash Flows & Reserve Funds

Both the water utility and the wastewater system maintain reserve funds to meet the requirements set forth in the financing agreements for the sale of bonds and to provide a prudent reserve in the event that unexpected expenses arise and/or major equipment replacements are necessary. Based on our review of financial information relating to the two systems, it appears that the following reserve funds are being maintained: 1) the debt service fund which holds moneys until they are disbursed to pay principal and interest that is due, and 2) the debt service reserve fund which contains funds sufficient to cover the maximum annual principal and interest payment in any one future year (a protection for bondholders). Apart from the moneys held in the above accounts, it appears that the water utility has over $4 million in its depreciation account and equipment replacement fund. The wastewater system appears to be nearly $14 million.

The availability of significant additional reserve funds is a complement to the management of both utilities for accumulating such reserves. However, from our experience with other utilities,

the amounts being held represent a fairly large percentage of the annual revenues of each system and are high relative to the practices of many other water and sewer utilities across the country. We believe that the opportunity exists to reduce or eliminate additional deposits to the Depreciation Fund and/or other funds for the near future without jeopardizing the financial integrity of the systems. By funding the wastewater system Depreciation Fund at the rate of 4% each year, it can be argued that current ratepayers are paying for the assets of the wastewater system twice: once through the debt service on outstanding bonds; and second, through the annual deposits to the Depreciation Fund. A more modest approach would be to provide deposits sufficient to pay for the replacement of major equipment at the facilities as opposed to the assets in total. Equipment will have a shorter useful life compared to structures that will likely last forty years or more. The use of the Fund strictly for equipment replacement is still far more than what many utilities do in terms of reserve funds. This concept can be implemented with or without a system merger. We anticipate that the regulatory agencies, such as the State Department of Natural Resources ("DNR"), may have concerns over such a change in policy and suggest that discussions be held before any actions are taken.

3.6 Vehicles & Equipment

During our observations of water utility and wastewater system facilities, we found equipment and vehicles in sufficient numbers and in good condition. The water utility has 31 pieces of major equipment that includes: 3 vans, 1 pumper, 2 SUV's, 14 pickup trucks, 6 trucks and 5 backhoe/loaders. The wastewater treatment plant has 16 major pieces of equipment that includes: 2 backhoe/loaders, 8 pickup trucks, 2 vans, 1 two ton truck, 1 F800 service vehicle, 1 tractor, and 1 SUV. The wastewater system also has 4 sewer flushing trucks that are stored at the City garage. Based on the number of staff that could be routine users of such equipment we calculated that there were 1.2 pieces of equipment for each user in the water utility and 1.0 pieces of equipment for each user in the wastewater system. These ratios do not take into account vacation, sick or holiday time. Based on our experience, the utilities may be able to reduce the total number of vehicles somewhat from their current levels, especially in the area of pick-up trucks. One item to note is that various City departments share water utility and DPW heavy equipment.

3.7 Facilities

The major facilities of the wastewater system from an operating perspective include the DPW offices, the treatment plant and the City garage. The water utility has its offices next to the municipal building and has its garage on the street behind its offices. From an operational perspective, none of the existing facilities is large enough to accommodate all offices, shops and garage space necessary for a combined water and wastewater utility. It may be possible to relocate all of the units of a merged operation into one or more new facilities at the treatment plant site; however, this will require a significant investment that will most likely not be offset by the sale of the existing water properties. Thus, there appears to be no advantage to a merger from the standpoint of available facilities.

3.8 Legal and Regulatory Matters

Governance

The water utility is regulated by the PSC. In addition, the DNR provides environmental guidelines and requires the utility to file an annual report. Chapter PSC 185 of the administrative code provides standards for public utility service and is applicable to the water utility. Items regulated include: rates, customer service and billing, records retention and viewing, and operating requirements which include water quality guidelines and system standards.

The wastewater treatment plant and collection system is not a public utility as defined by chapter 196 of the statutes of the State of Wisconsin. The wastewater system is a unit within a department of the City and is overseen by a Board of Public Works that was created by the City and reports to the City Council. The DNR provides oversight and a permit to operate the plant. The plant is also required to file an annual maintenance compliance report whose requirements are outlined in chapter NR 208 of the Wisconsin administrative code. Failure to complete and submit the report may result in fines of up to $10,000 per day.

Based on our conversations with a representative of the PSC, Class 1, 2 and 3 cities can combine utilities and be exempt from the regulation of their wastewater systems. Combined utilities in Class 4 cities are regulated for both water and wastewater. The City of Waukesha is a Class 2 city and if the two utilities were combined the water utility part of the merged organization would continue to be regulated and the wastewater component of the new utility would not be regulated. The new utility would have to maintain separate financial and operating records for both entities and be accountable to the City Council for wastewater activities. The PSC can review wastewater charges if asked to do so by a customer complaint.

Special Assessments

The City currently levies a special assessment on properties for improvements performed by the DPW and the water utility. The City receives payments from these special charges in two ways, direct and structured payments. Minor charges, which are usually less than $400, are paid directly to the City Treasurer. Structured payments are also received by the City Treasurer but are based upon agreements between the City and the contractor or owner of a property. The term of these payments is ten years and the City is repaid with interest that is currently at 8%. If the water utility and wastewater system were combined, a mechanism would have to be structured to assign the responsibility to levy and collect special assessments or it can remain the same.

Labor Contracts

It appears that a merger between the bargaining units representing employees in both utilities can be attained. We make this observation after having discussions with staff from both utilities and attorneys representing management. Items that would have to be addressed include salary parity, level of benefits, seniority and pension. Salary and benefit issues can be resolved by performing a classification study and by analyzing variations in each unit's benefits. Seniority issues would have to be negotiated and pension rights would remain constant because both utilities are in the same pension system. Another option would be to keep the existing bargaining units and just merge them into the new utility.

Creation/Dissolution of the Entities
It is our understanding that the City Council has the power to dissolve the Water Commission to merge the water utility into the DPW or expand its powers to merge the wastewater system into the Commission.

3.9 Relationship with the Regulatory Agencies

Our discussions with the PSC and the DNR indicated that there was a good relationship between the staff of the two regulatory agencies and staff from the water utility and the wastewater system.

3.10 Insurance

The water utility and the wastewater system, through the City, have the Wausau Underwriters Insurance Company providing commercial automobile insurance, workers compensation and employers liability insurance. The utilities also have Employers Insurance of Wausau providing umbrella liability in the amounts of $3 million for commercial general liability; $3 million for automobile liability and $1 million for employers' liability. Property insurance for both utilities is provided by the State of Wisconsin, Local Government Property Insurance Fund.

Since both utilities appear to have the same carriers and coverages for insurance a merger of the two may provide only minimal savings. For example, workers compensation insurance costs could be reduced by perhaps $4,000 per year if water utility employees receiving the same experience rating as City employees.

4. Discussion and Recommendation

4.1 Overview

Section 2 of the Report highlighted potential alternatives for the future direction of the water utility and the wastewater system. A summary of the advantages and disadvantages of a potential merger (including the alternatives) and our recommendation is provided in this Section. Prior to this presentation, we wish to indicate that we found both the water utility and the wastewater system to be managed, operated and maintained in a very fine manner. Our team members have visited many utilities over the years; we have concluded that the City should be proud of the performance of both utilities. Accordingly, our recommendations are intended to make good systems even better.

4.2 Advantages and Disadvantages of a Merger

The merger options include: 1) moving the wastewater organization into the water utility, and 2) dissolving the current water utility and moving the water system organization into the City as a unit of the Public Works Department.

Advantages:

- The opportunity exists to reduce wastewater treatment operating expenses through enhanced monitoring and control technology. Personnel from the water utility could utilize their exceptional experience in implementing such technology for the benefit of the wastewater system. It is estimated that at least two operator positions could be eliminated after the technology is installed; we suggest that such changes be accomplished at the time the technology is installed through: attrition, not filling vacancies or transfers to the water system or other City departments.

- There will likely be savings of one to two administrative personnel through a combined utility. The comparable services provided by the City and the water utility in accounting, purchasing, personnel and other services should enable a combined enterprise to reduce the annual cost of such services.

- Some savings in vehicle costs can be achieved based on the number of available vehicles compared to the personnel utilizing such vehicles; the optimum number of vehicles should be slightly less under a combined organization.

- The Technical Services portion of the water utility could be merged with the engineering unit of DPW. This should encourage the two units to utilize common tools and techniques and may broaden the experience and careers of the employees of Technical Services.

- The financial reserves of the wastewater system are far in excess of typical utilities of similar size in other areas of the country. We suggest that the amount of the annual deposits to the reserve funds be reevaluated.

Disadvantages and Other Considerations Associated With a Merger:

- A merger in the form of an independent district or public authority is not recommended since the potential financing benefits would be negligible.

- It is likely that base salary costs for wastewater system personnel would increase by $90,000 to $100,000 annually after such increased costs are phased-in. This is a preliminary estimate and is based on the premise that it would not be feasible to reduce the salaries of water utility personnel; therefore, to achieve parity, wastewater personnel costs will have to eventually increase.

- Most of the opportunities for improving the efficiency of operations can be achieved with increased sharing of resources and/or other organizational changes short of an outright merger.

- No savings in labor costs associated with maintenance are anticipated through a merger. The maintenance resources assigned to the water utility and the wastewater system are not exorbitant at the present time.

- Both systems (water and wastewater) function well at the present time. There are no major operating, maintenance or customer service issues that we have identified that would encourage a merger to address serious service concerns.

- The potential salary savings associated with a reduction in administrative personnel through a merger are not substantial and may be offset by a gradual increase in wastewater salaries to achieve parity.

- Careful attention would have to be paid to the structure of any merged organization to avoid the need for the wastewater system to pay property taxes to the City. We understand that this can be accomplished by continuing the present practice of the wastewater system not paying property taxes.

4.3 Recommendation

The potential benefits of the observations we have offered can be achieved without a full merger of the utilities. The City is different from utilities in some other jurisdictions in a positive sense: it already shares services between the wastewater system and the City to minimize downtime during the winter (e.g., through snow plowing); automation of the water utility's facilities has already enabled the utility to optimize the workforce, the DPW Director's salary is not charged to the wastewater utility so there are no overlapping directors salaries that could be reduced by having one director and the City and the utilities are in good financial condition. Thus, we suggest that the City and the utilities pursue the identified opportunities without merging the utilities.

Exhibits

Exhibit 1

Organization Chart
Waukesha Water Utility

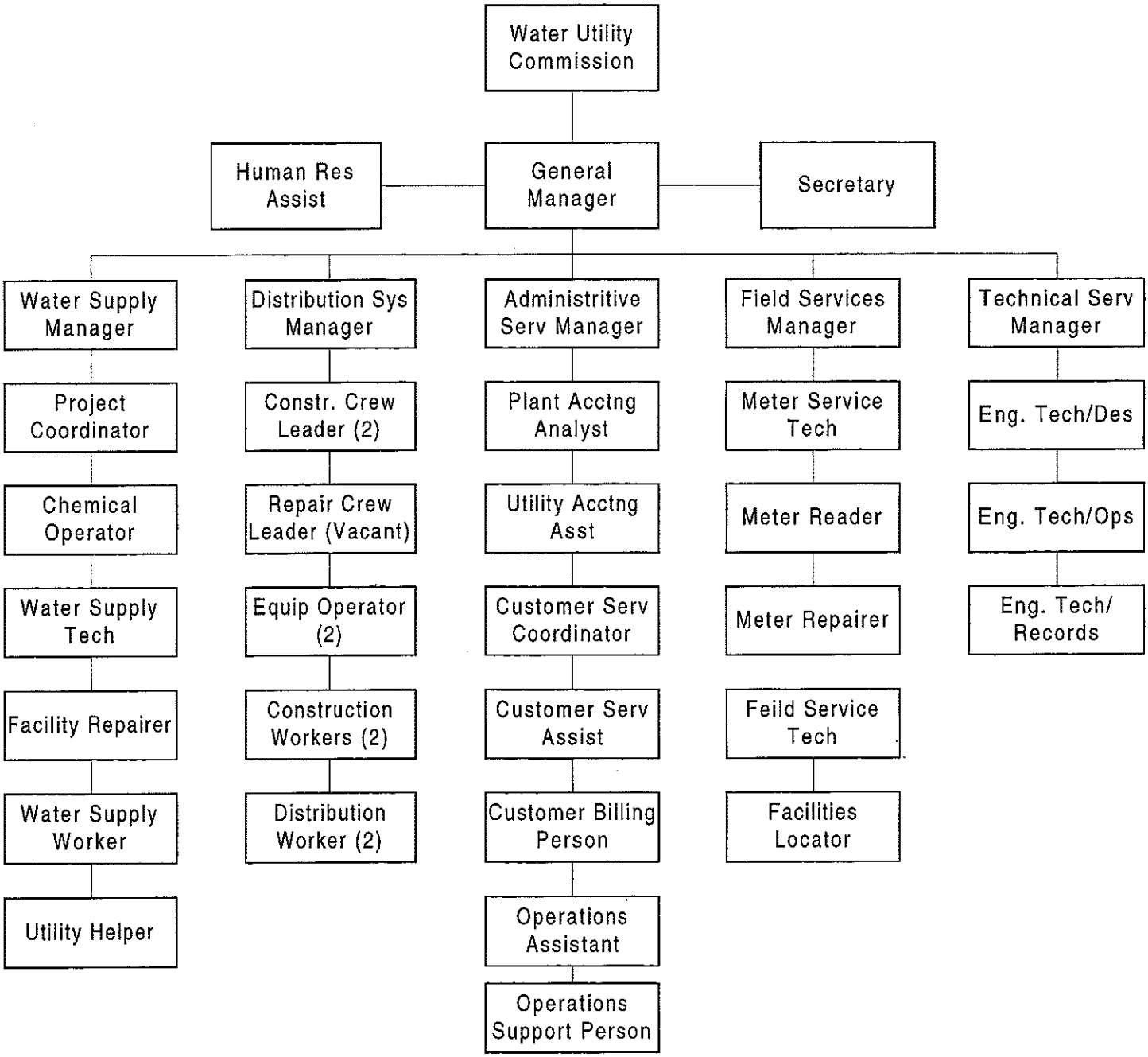

Exhibit 2

Organizational Chart
Waukesha WWTP

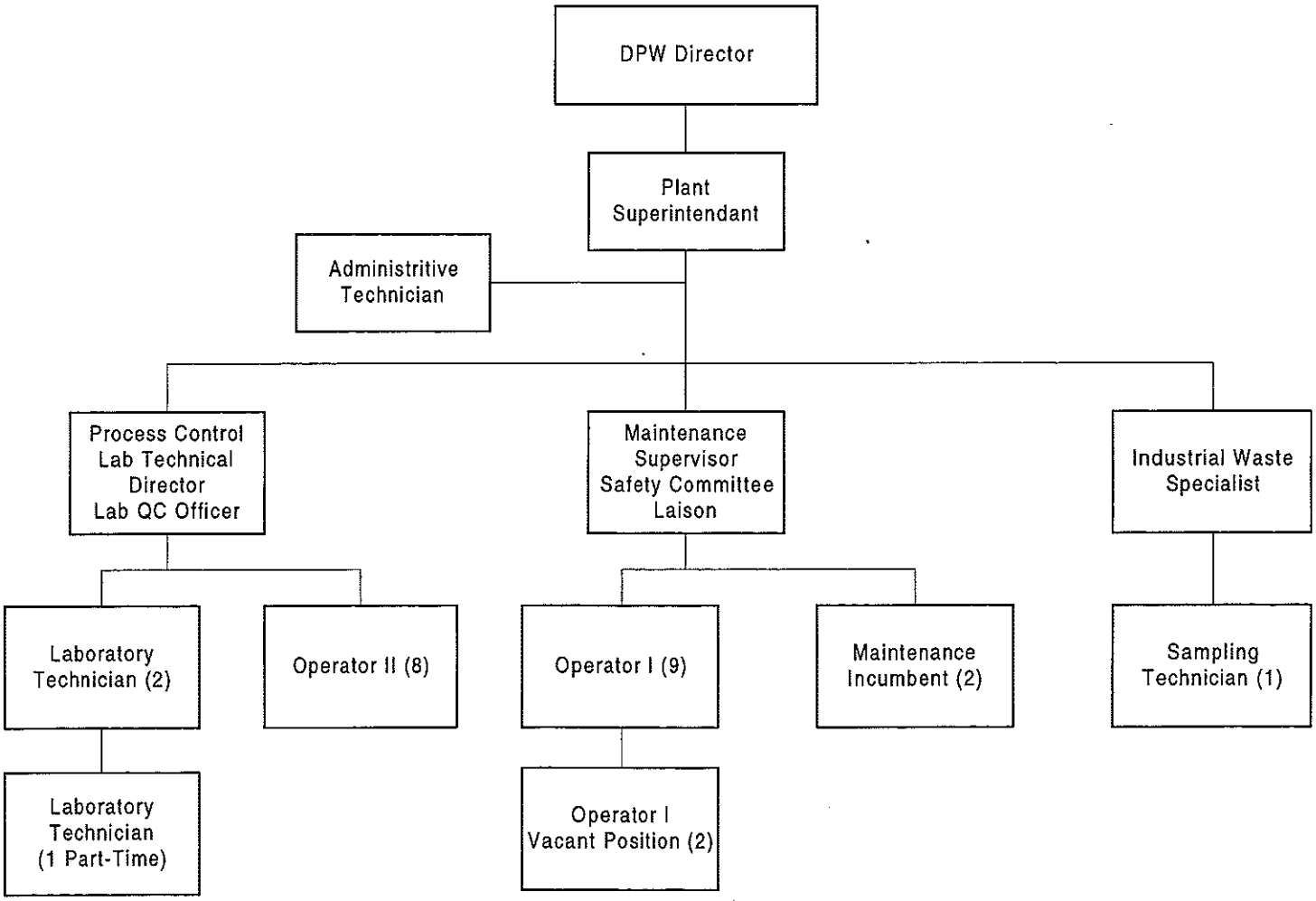

Exhibit 3

The City of Waukesha
Waukesha Water Utility Benchmarking Results

Organization	Number of Customers	MGD of Supply	Operating and Maintenance Expense	Full Time Equivalents	Average Salary	Total O&M per Customer	FTE per MGD	FTE per 1,000 Customers
Waukesha	**16,324**	**10**	**$3,620,763**	**38.0**	**$34,183**	**$221.81**	**3.80**	**2.33**
Consumers Water Company, NJ	30,694	9.8	$4,870,761	49.0	$49,947	$158.69	5.01	1.60
United Water Company, NJ	43,660	10.6	$4,855,630	49.0	$42,084	$111.21	4.62	1.12
United Water Company, AR	19,578	11.3	$3,865,753	45.0	$33,789	$197.45	3.99	2.30
Consumers Water Company, PA	18,641	11.8	$3,914,305	46.0	$44,325	$209.98	3.91	2.47
United Water Company, FL	27,296	15.2	$4,012,665	36.0	$41,748	$147.01	2.37	1.32
						Average	**3.95**	**1.86**

Notes:

MGD of Supply refers to Average Daily Flow
FTE is full-time equivalents on staff
All comparative utility data is taken from 1996. Waukesha data is from the 1997 fiscal year.

Exhibit 4

The City of Waukesha
Waukesha Wastewater Utility Benchmarking Results

Organization	Number of Customers	MGD of Wastewater	Operating and Maintenance Expense	Full Time Equivalents	Average Salary	Total O&M per Customer	FTE per MGD	FTE per 1,000 Customers
Waukesha	**16,324**	**10**	**$6,258,899**	**26.5**	**$39,758**	**$383.42**	**2.65**	**1.62**
City of Bismarck Wastewater Utility, ND	14,533	6	$1,684,590	19.0	$29,441	$115.91	3.17	1.31
Wheaton Sanitary District, IL	14,682	6	$2,563,712	19.0	$38,729	$174.62	3.17	1.29
City of Edmonds, WA	8,861	8	$4,636,143	29.0	$41,034	$523.21	3.63	3.27
Sheboygan Reg. Wastewater Treatment, WI	18,355	11	$3,634,501	19.8	$31,583	$198.01	1.80	1.08
City of Rocky Mount, NC	19,477	14	$6,979,200	51.8	$24,212	$358.33	3.70	2.66
Notes:						**Average**	**3.02**	**1.87**

MGD of wastewater refers to Average Daily Flow
FTE is full-time equivalents on staff
All comparative utility data is taken from 1996. Waukesha data is from the 1997 fiscal year.