

Proposal—Water Rate Study

City of Racine, Wisconsin



Submitted by Trilogy Consulting, LLC

November 12, 2025

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Executive Summary



Trilogy Consulting, LLC offers local governments and utilities an objective, independent perspective on planning, administrative and financial issues. Our core services include water, sewer, and storm water user charge rate studies and financial plans; utility customer demand studies; funding plans for capital improvements; economic feasibility studies; ordinance preparation; intergovernmental cooperation studies and agreements; impact fees and public facilities needs assessments; and specialized economic and policy analysis.

Trilogy was formed in November 2011 and is jointly owned by our principals, Erik Granum and Christine DeMaster. Erik and Christy have 46 combined years of experience working with dozens of municipalities on a wide variety of issues related to managing, operating, regulating and funding local government infrastructure and services, particularly sanitary sewer service, water service and stormwater management. We do not have any additional staff at this time, so all of our consulting services are provided by our principals. As owners of the company, we are passionate about providing excellent customer service and the highest quality work.

Trilogy Consulting, as well as each of our principals, is a registered municipal advisor with the Securities Exchange Commission and Municipal Securities Rulemaking Board. This registration is required for professionals offering advice regarding the potential issuance of municipal securities to finance capital improvements. As registered municipal advisors, we provide independent advice to our client communities regarding potential funding and financial plans. Both Christy and Erik have taken and passed the Series 50 Exam for Municipal Advisor Representatives and the Series 54 Exam for Municipal Advisor Principals.

We are members of the national and Wisconsin chapter of the American Water Works Association, with Christy serving on the AWWA Rates and Charges Committee and a sub-committee charged with developing recommendations for utility reserve policies. Additionally, both Erik and Christy served on the Review Committee for the Wisconsin Public Service Commission (PSC) Docket 5-WI-104, which was a PSC-sponsored docket evaluating alternative methodologies in determining appropriate costs and rates for public fire protection in Wisconsin. Christine is the current Chair of the Finance Committee for the Wisconsin section of AWWA.

Our general approach to this study will be to conduct a thorough review of the current utility finances and its supporting rates; independently compile and analyze the relevant system data, customer data, and financial data and develop recommendations for a long term financial plan; prepare a cost of service allocations and analyze rate structures; prepare reports and presentations of our recommendations for City staff and the Waterworks Commission; and support the City throughout the Public Service Commission water rate case process. Our goal with this study will be to develop a financial plan and rate structure that are sound and equitable based on the characteristics of the utility and its customers and accomplish the desired

Executive Summary



policy objectives of the City. In order to achieve this goal, our work plan includes both rigorous data analysis and a collaborative process of working with City staff.

In particular, we want to emphasize that our approach includes preparing a detailed cost-of-service analysis for the water utility. It is very important to perform a cost of service analysis in order to ensure that rates for water are reasonable, fair and defensible, and that charges for service reflect the cost of providing that service to all utility customers. We perform this analysis in the vast majority of the studies we undertake and highly encourage municipalities to update these studies when considering a rate increase so that rates always reflect the most recent utility cost structure and customers are fairly charged. While water utilities are not required to prepare their own cost of service study to obtain a water rate increase from the Public Service Commission, it is beneficial to do so in order to understand the impacts of a proposed rate increase on different classes of customers, particularly when a utility is considering implementing a change in rate structure.

We are delighted to submit a proposal for this study for the City of Racine and look forward to working with the City on keeping the water utility on track for strong financial health while continuing to provide high quality water for its customers and residents.

Qualifications and Staff Resumes



Specific to the requirements of this proposal, Trilogy's experience includes:

- Preparing dozens of water and sewer rate studies and financial plans for municipal utilities.
- Experience with financial plans and rate studies for utilities similar to Racine, such as Janesville, Madison, Green Bay, Milwaukee, Hudson, and River Falls, Wisconsin.
- Experience working with state regulatory agencies in a variety of situations, including obtaining approval for new rate-setting approaches and contested rate cases.
- Preparing water cost of service rate studies using the proper techniques for cost allocation with the base-extra capacity method.
- Detailed analysis of monthly, week, daily and/or hourly water use data for sampled customers or customer classes to evaluate alternative rates that tie closely to actual customer demand patterns and extra capacity needs.
- Implementation of a wide variety of water rate structures including conservation rates, outdoor irrigation rates, uniform rates, inclining block rates, and separate rates for different customer classes based on analysis of customer demand patterns by class (peaking ratios, seasonality, etc).
- Preparing long-range financial plans for utilities that incorporate forecasts of changes in customer demand and expenses, alternative funding plans for capital improvements, existing and recommended cash reserve levels, debt service, and debt coverage, in order to forecast future rate increases and test the sensitivity of changes in capital financing, customer demand and other variables.
- Assisting Janesville, Fort Atkinson, and Madison water utilities in obtaining PSC approval for expense depreciation to cash fund a sustained annual program of water main replacements.

Christine DeMaster, Principal and Senior Consultant, has 28 years of experience in municipal consulting and sewer and water rate consulting. She will be the Project Manager and primary contact for this project. Her specialized areas of expertise include financial planning; policy analysis; facilitating workshops with elected officials; public education and information; negotiating and drafting intermunicipal service agreements; and ordinance writing.

Erik Granum, Principal and Senior Consultant, has 18 years of experience in municipal consulting and sewer and water rate consulting. He will provide supporting analysis for this project. His specialized areas of expertise include customer demand analysis; cost of service studies; policy analysis related to user charge rate structures; and developing new user charge rate structures.

Detailed resumes for our staff are included on the following pages.

Christine A. DeMaster

Principal / Senior Consultant

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Christine has been a consultant to local governments and utilities since 1997, providing analysis and advice on a wide variety of planning, economic and fiscal issues. While her work experience varies widely the common theme is a focus on helping local governments and utilities develop fair and equitable long-term plans and policies. Her strengths include not only sound, detailed and accurate analysis, but also the ability to explain her recommendations in terms that are easy to understand.

Christine is a member of the national and Wisconsin chapter of the American Water Works Association, and has served on the AWWA Rates and Charges Committee and a sub-committee charged with developing recommendations for utility reserve policies. Christine is currently serving as the Chair of the WIAWWA Finance Committee.

Education:

- Master's of Urban Planning, University of Wisconsin—Milwaukee, 1997
- Bachelor of Science, Physics, Carroll College, 1994

Professional Affiliations:

- American Planning Association, Wisconsin Chapter
- American Water Works Association, Wisconsin Chapter

Professional Certification:

- Municipal Securities Rulemaking Board Series 50 and 54 Exams

Experience & Expertise

- Water and Sewer Rate Studies
- Cost-of-Service Rate Studies
- Specialized Rate Design, including Conservation Water Rates and High-Strength Sewer Rates
- Capital Infrastructure Cost Allocations
- Storm Water Utility Rate Studies and Development
- Public Facilities Needs Assessments and Impact Fee Studies
- Utility Creation and Acquisition Feasibility Studies
- Redevelopment, Site and General Planning Services
- Long-Term Capital Infrastructure Planning and Financial Analysis
- Tax Incremental Financing Planning and Analysis
- Expert Witness Testimony and Litigation Support
- Specialized Economic and Statistical Analysis
- Public Policy Research and Analysis
- Ordinance Drafting, Review and Updating

Erik A. Granum

Principal / Senior Consultant

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Erik has been working in the field of municipal and utility consulting since 2007, performing a wide variety of financial, economic and planning-related consulting services. His philosophy to municipal consulting is to provide an objective, fair and independent perspective for the client, while recognizing the political difficulties in public policy decision-making. He excels in developing alternative scenarios that meet the objectives of the municipality, while being reasonable and defensible for government decision makers that are held accountable to the residents and businesses in their communities.

Erik believes in providing local government officials and decision-makers recommendations that are based on the best available information so that public policy is sound, fair and logical. His passions lie in using available data and interpreting it into something that is understandable and has a positive real impact on communities.

Education:

- Master's of Urban Planning, University of Wisconsin—Milwaukee, 2009
- Bachelor of Business Administration, Marketing & Operations Management, University of Wisconsin—Whitewater, 2004

Professional Affiliations:

- American Water Works Association, Wisconsin Chapter

Professional Certification:

- Municipal Securities Rulemaking Board Series 50 and 54 Exams

Experience & Expertise

- Water and Sewer Rate Studies
- Cost-of-Service Rate Studies
- Specialized Rate Design, including Conservation Water Rates and High-Strength Sewer Rates
- Capital Cost Allocation
- Storm Water Utility Rate Studies and Development
- Public Facilities Needs Assessments and Impact Fee Studies
- Utility Creation and Acquisition Feasibility Studies
- Land Use Planning Services
- Long-Term Capital Planning and Financial Analysis
- Geographic Information Systems (GIS) - Mapping & Spatial Analysis
- Tax Incremental Financing Planning and Analysis
- Expert Witness Testimony and Litigation Support
- Specialized Economic and Statistical Analysis
- Public Policy Research and Analysis
- Ordinance Review and Updating
- Fiscal Impact Analysis
- Life Cycle Cost Analysis
- Analysis of New Funding Methods
- Grant Funding Research and Preparation of Applications

Qualifications— Similar Experience



City of River Falls, WI (Population 16,935)

Water Rate Study—2024

Services Provided:

- Prepare analysis of utility finances, including future capital planning and borrowing, to determine the desired amount of overall rate increase, the requested rate of return on net investment rate base, and prepare materials to present to City Council for approval to submit rate application to the Public Service Commission of Wisconsin (PSCW).
- Prepare and submit application to increase water rates to the PSCW.
- Assist Utility in responding to data requests from PSCW staff.
- Preparation of water COSS using the base-extra capacity method, including allocation of costs to fire protection among all customer classes based on property value.
- Analysis of monthly billing data for all customers to determine appropriate peak demand factors for each customer class to be used in the cost-of-service study to determine the appropriate rate structure for the utility.
- Appearance at rate case hearing for cross examination.
- Analysis of rates with final PSCW order and review of final tariff document.

City of Hudson, WI (Population 18,566)

Sewer Utility Rate Study, Water Rate Case—2020/2021, ongoing

Services Provided:

- Preparation of a sewer COSS and rate design, including a two-year phase in of a significant rate increase to cover a \$12.0 million upgrade to the City's wastewater treatment facility and rebalancing of rates and revenues between fixed and volumetric rates.
- Analysis of data for a sample of water utility customers from the City's newly installed AMI meters and to prepare a cost of service study with adjusted customer demand factors.
- Preparation of an adjusted water rate structure to align with the new COSS.
- Submittal of COSS and proposed rate design to PSCW and assist the Utility with responses to PSCW data requests.
- Attend the water rate case hearing.
- Analysis of rates with final PSCW order and review of final tariff document.
- Assistance negotiating new water and wastewater service agreements with the Village of North Hudson.

Qualifications— Similar Experience



City of New Richmond, WI (Population 10,079)

Water and Sewer Rate Study—2018/2019, 2022, 2025 (ongoing)

Services Provided:

- Preparation of a detailed long-term cash flow analysis for each utility that included evaluation of the utility's current financial condition relative to a variety of metrics, evaluation of multiple rate change alternatives, a growth sensitivity analysis, price elasticity analysis and a recommended strategy for funding future capital improvements.
- Preparation of a sewer utility COSS and rate design, including updated allocation of treatment costs for loadings and proposed rates for a new high strength customer (distillery).
- Preparation of water utility COSS using the base-extra capacity method and preparation of multiple alternative rate structures for consideration by utility staff, including alternatives to mitigate the impacts of the updated COSS and cost structure on a large industrial customer.
- Assist the Utility in preparing and submitting application to increase water rates to the Public Service Commission of Wisconsin (PSCW).
- Assist Utility in responding to data requests from PSCW staff.
- Appearance at the rate case hearing.
- Analysis of rates with the final PSCW order and review of the final tariff document.
- Update of the sewer rate study in 2022 to evaluate the impacts of several scenarios of potential increases in costs for biosolids disposal, for future planning purposes.

Green Bay Water Utility, WI (Population Served 140,000 est.)

Water Rate Case—2018, 2019, 2024

Services Provided:

- Review of PSC data requests and proposed revenue requirements and assist utility with comments and responses.
- Preparation of water utility COSS using the base-extra capacity method and consistent with wholesale water service agreements and specific infrastructure within the utility supply system.
- Appearance at the rate case hearing.
- Analysis of rates with the final PSCW order and review of the final tariff document.

Qualifications—Similar Experience



Madison Water Utility, WI (Population 275,000)

The City of Madison supplies and distributes groundwater to the City of Madison on a retail basis, and the Village of Maple Bluff, the Village of Shorewood Hills, and the Fitchburg Utility District No. 1 on a wholesale basis.

Date of Services Provided: 2014—Present, including water rate case filings made in 2014, 2017, 2019, 2022, and 2024/2025

Services Provided:

- Detailed analysis of AMI data to identify peaking patterns for each retail customer class and wholesale municipal customers.
- Preparation of water COSS using the base-extra capacity method, including allocation of costs to fire protection.
- Analysis of alternative rate structures to promote water conservation and balance fixed and volumetric revenues.
- Analysis of public and private fire protection costs and proposed rate design.
- Analysis of alternative levels of investment in infrastructure renewal and replacement and recommend financial plan to gradually increase investment while minimizing rate shock.
- Assist Utility in preparing and submitting application to increase water rates to the Public Service Commission of Wisconsin (PSCW).
- Assist Utility in responding to data requests from PSCW staff.
- Provide expert witness testimony in multiple rate case proceedings before the PSCW, including multiple rounds of pre-filed written testimony and cases involving intervening parties.
- Coordinate rate case strategy and testimony from multiple Utility witnesses, including drafting testimony for Utility witnesses.
- Appearance at the rate case hearing for cross-examination.
- Analysis of rates with final PSCW order and review of final tariff document.
- Obtained approval from the PSCW for a first-of-its-kind in Wisconsin customer assistance program, designed to reduce water bills for low-income customers and approval for expense depreciation to cash fund replacement of \$5.0 million of water mains per year.

Qualifications—Similar Experience



Oak Creek Water Utility (Population 38,373, 2 wholesale customers)

Date of Services Provided: 2012– Present

Services Provided:

- Design and implementation of a customer demand study analyzing hourly water use data for a sample of retail customers from each customer class (ongoing since 2012) to determine estimated maximum day and maximum hour demand factors to use for each of the Utility’s retail and wholesale customer classes in future cost-of-service studies.
- Preparation of financial forecasts under numerous capital and operating scenarios to evaluate the impact of regional water service alternatives for planning purposes.
- Development of an alternative cost-of-service and rate model for determination of the cost allocation and rate calculation methodology for retail vs. wholesale customers. This model was used as the basis for negotiations of a new wholesale contract with the City of Franklin. This landmark 40-year contract was signed in September 2024.

Milwaukee Water Works (161,000 retail customers, 10 municipal customers)

Date of Services Provided: 2012– Present

Services Provided:

- Design and implementation of a customer demand study analyzing hourly water use data for a sample of retail customers from each customer class (ongoing since 2012) to determine estimated maximum day and maximum hour demand factors to use for each of the Utility’s retail customer classes in future cost-of-service studies.
- Rate Case Consulting Services—2013/2014
 - Provide expert support and testimony regarding customer demand study.
 - Provide input and expert review of cost-of-service methodology, strategy, calculations and assumptions.
 - Meet with wholesale customers to discuss the cost-of-service study and proposed rate structure to attempt to resolve possible contested issues prior to rate case filing.
 - Outreach to Wisconsin Public Service Commission staff to discuss proposed methodologies.
 - Expert review of all legal documents and assistance with the rate case procedure, including testimonies, exhibits, cross-examination strategies, briefs, and memos.
 - Assist with messaging and presentations to various groups.

Qualifications—Similar Experience



Water Rate Negotiating Services—2015 through 2021

As part of the rate order in 2014, the Wisconsin Public Service Commission required the Milwaukee Water Works to: 1) Work with its wholesale customer communities to reach agreement regarding the treatment of customer demand factors prior to the next water rate case; and 2) Work with its wholesale customer communities and Public Service Commission staff to reach agreement regarding the allocation of public fire protection costs for the next rate case. Trilogy Consulting provided consulting services to Milwaukee Water Works in support of negotiations with the wholesale customer communities. Milwaukee Water Works reached an agreement with its wholesale customer communities regarding treatment of customer demand factors; Public Service Commission staff reviewed methods for allocating public fire protection costs, resulting in a report filed under Docket 5-WI-104. Trilogy's services for this process included:

Rate Case Consulting Services—2021/2022 (Uncontested by wholesale customers) and 2025/2026 (ongoing)

- Assist Utility in preparing and submitting application to increase water rates to the Public Service Commission of Wisconsin (PSCW).
- Assist Utility in responding to data requests from PSCW staff.
- Preparation and submittal of a COSS and rate design using the base-extra capacity method, agreed-upon allocation of costs between retail and wholesale customers, and customer demand factors developed through the customer demand study.
- Appearance at the rate case hearing and
- Analysis of rates with final PSCW order and review of final tariff document.

City of Janesville, WI (Population 65,615)

Water Rate Case—2019

Services Provided:

- Preparation of a long range financial plan that evaluated the financial impacts of four scenarios: continue financing main replacements with 10-year borrowing; finance mains with 20-year borrowing; reduce the main replacement program; or use expense depreciation to cash fund main replacements.
- Preparation of water cost of service studies using the base-extra capacity method, including allocation of costs to fire protection.
- Analysis of public and private fire protection costs and proposed rate design.
- Assist the Utility in preparing and submitting application to increase water rates to the Public Service Commission of Wisconsin (PSCW).
- Assist the Utility in responding to data requests from PSCW staff.
- Provide expert witness testimony in the rate case proceeding before the PSCW, including multiple rounds of pre-filed written testimony.

Qualifications—Similar Experience



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- Coordinate rate case strategy and testimony from multiple Utility witnesses, including drafting testimony for Utility witnesses.
 - Appearance at the rate case hearing for cross examination.
 - Analysis of rates with final PSCW order and review of final tariff document.
 - Obtain a water rate increase from the Wisconsin Public Service Commission that included \$3.5 million of expense depreciation for cash financing replacement of 1 percent of the Utility's water mains per year and a new fixed charge to recover a portion of the cost of the main replacement program.

Scope of Services

Project Work Plan

- **Project Kickoff Meeting. (Meeting 1)** Upon approval of the start of the project, we will conduct a kickoff meeting with City staff. The goal of the meeting will be to discuss the overall objectives of the water utility, available information and data for the study, anticipated schedule and deadlines and main points of contact and preferred communication procedures. Prior to the meeting, we will also provide a detailed draft list of information requested for the study.
- **Information Review and Preparation of Detailed Project Schedule.** Following the kickoff meeting, we will review all information received from the City.
 - a. Upon receipt, we will review the information and follow up with City staff as needed for clarification or to request additional detail.
 - b. The project schedule will include the following:
 - i. Tasks and assignments for their completion;
 - ii. Target dates for completion of draft and final analyses;
 - iii. Target dates for review by City staff;
 - iv. Target dates for review meetings;
 - v. Dates for submittal of draft and final reports;
 - vi. Meeting dates for presentation to the Waterworks Commission;
 - vii. Date for submittal of the water rate application to the PSC.
- **Utility Data Analysis.** We will perform an analysis of overall trends in utility operations, operating expenses and consumption by customer class for the utility. This will be used to determine overall projections in water usage and O&M expenses for the future forecast, as well as water use patterns to be used in the cost of service study and rate design. Specifically, we will:
 - a. Prepare trend analysis of operating expenses by category to identify any expenses that are increasing significantly greater than others and discuss the causes of that difference with City staff;
 - b. Prepare detailed trend analysis of historical customer data to evaluate trends in numbers of customers and demand per customer by customer class, and in the number of public and private fire protection connections;
 - c. Discuss with City staff any known local factors, development trends or policies that are likely to influence future patterns in the growth or decline of the customer base or water use per customer;
 - d. Project total customers billed by customer class and meter size, and total billed water consumption by rate tier and customer class;
 - e. Project public and private fire connections;
 - f. Compile and analyze system data such as daily pumpage, utility asset information, and functions of

Scope of Services

system facilities, to determine if there should be any adjustment in allocation factors for O&M and capital costs;

- e. Based on available data, we will perform an analysis of peak water usage by customer class. This will be used to determine the appropriate peaking factors to be used within the cost-of-service study, which determines the proportionate amount of certain facilities' costs that are allocated to each customer class. This data may also be used to adjust water usage blocks and rate tiers if that is desirable.

- **Review of Intergovernmental Agreements**

- a. We will review the 2004 and 2018 intergovernmental agreements for water service, with a focus on the following:
 - i. The fairness and reasonableness of the methodology to allocate costs and calculate rates.
 - ii. The conformity of the methodologies to industry standards and PSC practices.
 - iii. Any aspects of the agreements concerning specific types of infrastructure costs and how costs are allocated to pay for those costs.
 - iv. Any other terms of the agreements that should be updated or clarified to improve the implementation of the agreements.
- b. We will request historical financial records pertaining to the amounts allocated to future growth, revenues collected through front-foot charges, and other records relevant to the implementation of the 2004 agreement. We will review this information to evaluate the methodologies contained within the agreement.
- c. We will request records that detail infrastructure constructed, actual construction costs, shortfalls or excesses in revenues and payments made resulting from the methodology of the 2018 agreement. We will review this information to evaluate any inconsistencies between the intent of the agreement and the implementation of the methodology.
- d. We will prepare a memo outlining a summary of our review, describe the methodologies contained within and their reasonableness, and prepare any recommendations for changes.

- **Future Financial Forecast.** For this task, we will develop a plan and recommendations for funding all utility functions for 2026 and a 10-year forecast of operating and capital needs. We will prepare a cash flow analysis incorporating all projected revenues and expenses, including debt service and capital expenses. As part of the development of recommendations for funding current and future expenses, we will prepare and evaluate alternative capital funding plans and develop recommendations for a capital funding plan, future rate increases and criteria to use for the ongoing analysis and monitoring of the Utility's financial status. The recommendations will take into consideration the Utility's ability to issue debt, the avoidance of rate spikes, and any other goals regarding rate levels and Utility policies.

Scope of Services

Specifically, the forecasts will include the following:

- a. Projected customers and customer demand;
 - b. Projected user charge revenues at current rates;
 - c. Projected other operating revenues and non-operating revenues;
 - d. Projected operation and maintenance expenses;
 - e. Future debt service payments for existing debt obligations;
 - f. Evaluation of the feasibility and desirability of cash financing vs. debt financing each year's improvements, based on the magnitude of costs, the useful life of the improvements, the availability of current rate revenues and/or reserve balances to use for cash financing, Utility policies and ability to issue debt, debt coverage requirements, debt to equity ratios and any other criteria identified for the study;
 - g. Capital funding plan showing the projects, costs, and proposed financing sources by year, and estimated debt service for anticipated debt issuances;
 - h. Analysis of debt coverage and the utility's ability to meet coverage requirements;
 - i. Projected reserve fund balances;
 - j. Recommended minimum reserve levels;
 - k. Estimated timing and amount of overall user charge rate increases needed to provide adequate debt coverage and maintain recommended reserve fund balances;
 - l. An estimate of the net investment rate base by year and the rate of return that would be generated by the proposed overall user charge revenues. This will be used to evaluate the feasibility of the alternative funding plans in the context of PSC policies for allowable rate of return.
 - m. After the draft funding plan and financial forecast is completed, we will conduct a meeting **(Meeting 2)** with City staff to review the analysis, assumptions and recommendations, and test the impacts of changes in key assumptions.
 - n. Following the meeting, we will prepare the updated and/or modified financial forecast.
- **Cost-of-Service Analysis.**
 - a. We will prepare a cost-of-service model, remaining consistent with the base-extra capacity method used by the Wisconsin Public Service Commission, and as outlined in the AWWA M1 Manual. Performing the cost-of-service for the water system involves the following tasks:
 - i. Allocation of the various categories of revenue requirements to utility functions, including base system and distribution, facilities providing maximum day demand (system and distribution), facilities providing maximum hour demand (system, distribution and storage), fixed customer costs (billing, meters, services), and fire protection. As part of this task, we will evaluate the balance of costs allocated to fixed vs. volume functions.
 - ii. Allocation of main assets between transmission and distribution functions.

Scope of Services

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- iii. Determining each customer class's proportionate share of functionalized costs.
 - 1) For each utility function, the analysis will determine the share of demand for each customer class.
 - 2) Based on the unique makeup of the Utility and its customers, these may be adjusted due to many different factors, such as estimated ratios of peak demand.
 - vi. Allocation of functional costs to customer classes.
 - 1) Based on the previous analyses, costs will be allocated to each customer class to result in a total amount of proportionate revenue to be collected from each customer class that serves as the basis for the appropriate rate design.
 - 2) Other operating revenues (non-user rate) will be allocated proportionately among customer classes to offset the amount of revenue that is required to be recovered through user rates.
 - b. We will begin the cost-of-service analysis by reviewing historical analyses prepared on behalf of the Racine Water Utility in previous PSC rate cases, and prepare a base model that reflects the most recent model that was utilized.
 - c. While performing the cost-of-service, we will confer with City staff as needed to discuss any additional information needs or clarification of any of the data used in the cost-of-service.
 - d. After the draft cost of service study is completed, we will conduct a meeting (**Meeting 2**) with City staff to review the analysis, assumptions and recommendations of the cost of service study and the overall increases in revenues per customer class, and test the impacts of changes in key assumptions.
 - e. Following the meeting, prepare the updated and/or modified cost of service model.
 - **Rate Structure Recommendation.** As part of the review meeting described above, we will discuss in detail the objectives for rate structures for the utility. Based on this discussion, we will prepare and evaluate alternative rate structures.
 - a. We will prepare a base rate structure for use as a point of comparison that will mirror the utility's current rate structure with the revenue requirements previously determined. The baseline rate structure will:
 - i. Recover approximately the amount of the revenue requirements;
 - ii. Follow cost-of-service principles;
 - iii. Calculate total projected revenues from each customer class and compare them to projected revenues under current rates;
 - iv. Show the impacts of the rate structures on customers at the full range of usage levels from each customer class;
 - v. Show how much revenue is collected through fixed charges vs. volume charges.

Scope of Services

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- b. We will prepare alternative water rate structures that the City desires to explore and/or are indicated by the utility cost structure. Examples of rate structures that we may consider include increased fixed charges, the adjustment of water rate tiers, adjustment to public or private fire protection charges, or any other rate structure that may be deemed appropriate based on the results of the analysis performed and discussions with City staff. For each rate structure alternative, we will prepare the following:
 - i. The overall increase in revenues from each customer class;
 - ii. The amount of revenues collected through fixed charges vs. volume charges;
 - iii. The percentage increase in customer bills for various usage levels for each customer class;
 - iv. A comparison with the water bills for the average residential customer for a number of peer communities;
 - c. As part of the rate structure evaluation, we will review current billing policies and procedures and recommend any changes. For example, the feasibility of changing from quarterly to monthly billing. We will also review other service charges that could be adjusted or added to the utility's current tariff, such as a special billing charge or real estate closing charge.
 - d. We will conduct a meeting **(Meeting 2)** with City staff to discuss the preliminary findings and recommendations of the rate structure analysis and any adjustments that should be made to better align with the City's objectives.
 - e. Following the meeting, we will revise the rate structure as needed.
- **Written Report and Presentation.**
 - a. We will prepare a draft report containing all analysis and findings and submit it to City staff for review and discussion.
 - b. We will conduct a meeting **(Meeting 3)** with City staff to discuss any questions, comments and revisions.
 - c. After discussing the preliminary results and proposed rates with City staff, we will make any necessary adjustments and prepare a final report.
 - d. We will prepare a PowerPoint presentation of the analysis and key findings and recommendations of the cash flow projections, cost of service studies and rate structure analysis.
 - e. We will attend one Waterworks Commission meeting **(Meeting 4)** to present the key findings of the report, explain the analysis behind the proposed rates and answer any questions.
 - **Public Service Commission Water Rate Case Application.** Based on the information review and analysis described above, we will prepare the application to increase rates for the water utility that the PSC requires.
 - a. Input all relevant information requested, including data on water sales, revenues, expenses,

Scope of Services

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- capital assets, debt, etc.
 - b. Determine the appropriate rate of return on net investment rate base to request based on analysis of the utility's financials and cash flows.
 - c. Prepare all supporting documentation needed for a complete application.
 - d. Working with input from City staff, compile notes explaining any significant deviations in information from previous years, as stated within the application's instructions.
- **PSC Rate Case Assistance.** Once the PSC application is submitted to the Commission electronically for review, we will provide assistance and support in the following manner:
 - a. Review questions received from PSC staff regarding the details of the application and coordinate responses with City staff.
 - b. Review exhibits prepared by the PSC, revise the water utility cost-of-service based on any changes to the revenue requirements, and submit the cost-of-service and rate proposal, as necessary.
 - c. Attend the PSC rate hearing (**Meeting 5**) in support of the proposal.
 - d. Review the final PSC order and provide any assistance with implementation.
 - **Additional Requested Tasks.** The City may request additional services or additional meetings with the City. If the City desires any additional optional services, we will answer any questions and prepare any additional analysis, billed at our standard hourly billing rates as needed.

References



Green Bay Water Utility

Contact:

Stephanie Rogers, Business Manager
920-448-3480 x4121
Stephanie.Rogers@greenbaywi.gov

Hudson, Wisconsin

Contact:

Kip Peters, Utility Director
715-386-4765 x115
kpeters@ci.hudson.wi.us

Janesville, Wisconsin

Contact:

David Botts, Utility Director
608-755-3115
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Madison Water Utility

Contact:

Krishna Kumar, General Manager
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Milwaukee Water Works

Contact:

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New Richmond, Wisconsin

Contact:

Rae Ann Ailts, Assistant City Administrator/Finance
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Oak Creek, Wisconsin

Contact:

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River Falls, Wisconsin

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Fee Schedule - Water Rate Study



Our proposal was prepared under the assumption that any additional work requested would be considered out-of-scope. Both principals of Trilogy would be involved in the project tasks. The cost proposal follows the scope of work by task, with a cost summary broken down by task below. Our standard hourly rate is \$130 per hour. We do not charge for any mileage, and do not anticipate the need for any other materials or expenses.

Task	Total Estimated Hours	Rate	Cost
Project Kickoff Meeting			
Task Subtotal	4.00	\$ 130.00	\$ 520.00
Information Review and Detailed Project Schedule			
Task Subtotal	10.50	\$ 130.00	\$ 1,365.00
Utility Data Analysis			
Task Subtotal	20.00	\$ 130.00	\$ 2,600.00
Review of Intergovernmental Agreements			
Task Subtotal	62.00	\$ 130.00	\$ 8,060.00
Future Financial Forecast			
Task Subtotal	28.00	\$ 130.00	\$ 3,640.00
Water Utility Cost-of-Service Analysis			
Task Subtotal	15.00	\$ 130.00	\$ 1,950.00
Rate Structure Recommendations			
Task Subtotal	15.00	\$ 130.00	\$ 1,950.00
Written Report and Presentations			
Task Subtotal	37.00	\$ 130.00	\$ 4,810.00
PSC Water Rate Case Application			
Task Subtotal	28.50	\$ 130.00	\$ 3,705.00
PSC Rate Case Assistance			
Task Subtotal	17.00	\$ 130.00	\$ 2,210.00
Grand Total	237.00		\$ 30,810.00