Olivehurst Public Utility District

Agenda Item Staff Report

Meeting Date: 6/18/26

Item description/summary:

On April 24, 2026 OPUD went out for a Request for Proposal (RFP) for Olivehurst PUD Rate Study that would take in affect for time period of January 1, 2028 – December 31, 2032. The goal of this proposal was to receive proposal from qualified rate study providers as part of the PROP 218 Study that utility providers conduct in order to establish rates, in the case of OPUD, for Water and Sewer based on existing maintenance, operations, reserve, etc… requirements in order to continue supporting the rate payers for the services.

On May 22, 2026, OPUD received 6 proposals for the rate study of which five were short listed for interview. The week of June 1st OPUD conducted interviews and established the following rankings of the proposers who were shortlisted:

1.) Bartle Wells
2.) Willdan Financial Services
3.) Raftlis
4.) LTMuniconsultants
5.) RDNiehaus

Fiscal Analysis:

n/a

Employee Feedback

n/a

Sample Motion:

Move forward to approve Bartle Wells for consultant that will conduct Water and Sewer Rate under the requirements of Prop 218 for the time period of January 1st, 2028 – December 31st, 2032.

Prepared by: Swarnjit Boyal, Public Works Manager

EXHIBIT A – RECEIVED PROPOSALS

Olivehurst Public Utilities District

Proposal

Water and Wastewater Rate Study

WILLDAN
FINANCIAL SERVICES

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Consultant Identification and Qualifications

May 22, 2026

Mr. Swarnjit Boyal
Director of Public Works
Olivehurst Public Utility District
1970 9th Ave
Olivehurst, CA 95961

Re: Technical Proposal to Conduct a Water and Wastewater Rate Study for the Olivehurst Public Utility District

Dear Mr. Boyal:

Willdan Financial Services ("Willdan") is pleased to submit the following proposal to conduct a Water and Wastewater Rate Study on behalf of the Olivehurst Public Utility District ("District").

Willdan's interactive approach will result in a customized Excel financial model, that the District will retain, and a focused and tailored analysis of the District's current rates, revenues, capital project and operational expenditures, debt commitments, reserve funding, and other financial data. The culmination of our analysis will be a comprehensive financial management plan that develops projected system operating results for the next ten (10) fiscal years, and suggested rates for up to five (5) years. We will employ our proven interactive approach, supported with advanced financial modeling techniques, to develop a sophisticated and flexible financial model to help us guide the District through operating and financial scenarios, evaluate the impact of policy assumptions, and perform sensitivity analysis on utility rates and financial strategies.

Our ability to focus on the financial aspects of operating publicly owned utility systems is coupled with recognized leadership in strategic planning and operations and enables us to bring unmatched value to our clients. Our team brings a set of nationally recognized qualifications and experts that sets us apart. These qualifications include:

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Recent Experience with Public Agencies and Projects with Same Objectives as Olivehurst Public Utilities District — Willdan has worked recently with numerous Public Utility Districts, Community Services Districts and cities on utility rate studies with objectives that closely mirror those outlined by the District and discussed above – developing and analyzing a comprehensive financial plan for the sewer and water utilities, understanding the impact of capital projects and increasing costs of operations, and ensuring sufficient and stable funding for ongoing and projected needs. We understand how special purpose districts such as PUD's and CSD's are structured and their service profiles, the dynamics of working in your area, and working with similar size municipal agencies.

We have ***recently completed successful comprehensive studies for the Cities of Vacaville, Hercules, Ione, La Palma, Stanton, Buellton, McFarland, Hemet, Dinuba, Santa Ynez Community Services District, McKinleyville Community Services District, and are currently working with the Cities of Port Hueneme, Livingston, San Jacinto, and the Monterey One Water District with objectives and experience that relate closely to the goals of the District 's proposed study.***

Unique Approach — Our approach to the development of utility rates has been carefully honed over the years. We will work collaboratively with District staff to carefully assess and understand the District's unique utility system concerns and issues, clarify goals and objectives, and develop a tailored approach that will best serve your needs. We do not use a "cookie-cutter" approach but rather bring a combination of planning and financial expertise providing a thorough understanding of utility operations and management.

A key to our approach is the use of a sophisticated and dynamic model and dashboard that allows us to quickly evaluate alternatives resulting from changes in assumptions and input variables, to address different policy and financial objectives. This allows us to work collaboratively and transparently, to provide comprehensive business solutions. Our objective is to educate and inform throughout the process, not just at the completion of the project.

Unmatched Experience Developing and Implementing Utility Rates — Willdan is nationally recognized for its expertise in developing and implementing utility system financial planning, rate, and impact fee studies, and has extensive experience in California implementing **Proposition 218** compliant rate structures.

Communicating the Results — Sound technical analysis is only one element of this process. It will be equally important to effectively communicate results and implications of the proposed rate structure to District staff, District Board Members, key stakeholders, and ***ultimately to those that will be subject to new rates.***

Most of our projects incorporate significant community and/or stakeholder involvement and education efforts, and our experienced consultants are able to communicate complicated technical analysis in a manner that is easy to follow and understand.

The intuitive setup of our financial models allows Willdan to discuss and present critical information in a way that maximizes engagement and facilitates outreach. Our reports and presentations provide a solid understanding of the project and the rationale behind the development of the rates.

Willdan Financial Services will perform the services and adhere to the requirements described in this RFP, including any addenda, if released.

I, Chris Fisher, will serve as the primary contact person for this proposal; ***as an officer of the firm, I am authorized to negotiate and bind Willdan Financial Services.*** Provided in the table below is my contact information.

Willdan Financial Services

Authorized Signer

Chris Fisher
Vice President / Director
27368 Via Industria, Suite 200 | Temecula, CA 92590
Tel#: (951) 587-3500 | Email: CFisher@Willdan.com

Willdan maintains exceptional experience in utility cost of service and rate design and is excited about this opportunity to use our skills and expertise to serve the Olivehurst Public Utility District.

Sincerely,

WILLDAN FINANCIAL SERVICES

Chris Fisher
Vice President / Director

Project Understanding and Approach

Project Understanding

The following project approach and scope of services is based on Willdan's current understanding of the Olivehurst Public Utilities District ("District") needs and objectives for a Water and Wastewater Rate Study. ***While this approach and scope is informed by our understanding of the RFP and our initial research outlined below, we will begin this project by working with the District to enhance our understanding of the current financial situation and objectives through further research and data gathering and detailed discussions regarding your goals and priorities for this study.***

The District is seeking proposals to independently assess and evaluate existing water/wastewater rates and provide recommendations that target the financial health and stability of the utilities. The overall objective is to adequately fund water/wastewater utility operations, capital costs, reserves, and repayment of existing and/or proposed debt, while minimizing rates to the greatest degree possible. The study will address the following objectives:

- Evaluate existing rates for conformance with statutory regulations and make recommendations necessary to achieve compliance;
- Using existing rates and customer data as a baseline for planning and recommendations, and as the foundation of the financial plan;
- Creating a comprehensive ten (10) year financial plan and calculated revenue requirements to ensure the District has adequate resources to address costs associated with maintenance and operations, capital improvement projects, management of any outstanding and/or proposed debt and funding of appropriate reserves;
- Using the financial plan and model to collaborate with Staff to create and evaluate alternatives and scenarios, to be sure the selected approach best balances the financial needs of the District with the sensitivities of the Board and local community;
- Developing a five-year plan of rates, based on a Prop 218 compliant cost of service analysis, with a phase-in approach to minimize the impact of any recommended rate increases on customers to the best extent possible;
- Develop rates/fees that are easily understood by the public, Board, and staff; and
- Most importantly, presenting results clearly to Staff, the Board and the public in a manner that emphasizes understanding of the process, recommendations and results and listening carefully to feedback;

Willdan will support the District's goals by analyzing current rates, evaluating their ability to provide funding for the above-mentioned needs, ensuring rates are aligned with future demands and goals, and remain fair, legally defensible and Proposition 218 compliant.

The District is located in California's Central Valley, in Yuba County, approximately 35 miles north of Sacramento and currently serves a population of approximately 31,865, with a service area that is mostly urbanized and well-established.

The District currently provides potable water and wastewater collection and treatment services, in addition to recreation services for the communities of Olivehurst and Plumas Lake, and fire protection services for the community of Olivehurst.

The District operates two separate water pumping and distribution systems for the Olivehurst and Plumas Lake communities and serves around 4,822 direct connections that are documented for drinking water systems, with an additional 1,900+ connections in Plumas Lake and over 1,000 in Olivehurst. The District pumps water from a series of active deep municipal wells, including facilities like the Wheeler Ranch Water Treatment Plant, which treats raw water drawn from over 600 feet below the surface. The District collects wastewater from customers in Olivehurst and Plumas and conveys it for treatment and disposal to its District-owned treatment facility, which is permitted for treatment of up to 3 million gallons per day.

Current water rates are a combination of fixed and consumption charges for metered accounts, and fixed charges for flat-rate accounts, with different rates for different meter sizes. Sewer rates are flat rates for three categories of customers. Previous rates were adopted in July 2022, with a series of increases going into effect each year thereafter, until January 1, 2027.

Project Approach

We will develop a comprehensive and detailed analysis of the utilities to ensure rates are able to generate sufficient revenue to meet operating and maintenance needs, account for future capital needs, replacement of aging infrastructure, funding of appropriate reserves, while ensuring compliance with regulatory requirements. Our approach and model incorporate a robust Capital Plan Analysis to ensure the utility will be best equipped to address upcoming projects and their funding over the next five years, while maintaining required debt service coverage and appropriate reserve fund balances.

Our objective is to provide Staff and the District Board with the information it needs to understand utility current and projected financial conditions, understand key drivers behind recommendations, evaluate options for moving forward, and make informed decisions based on this process.

We will develop a ten-year financial plan and rate model, with a five-year schedule of recommended rates and fees. Extending the financial model out to 10 years will provide long-term visibility of financial needs. We will also work with the District to provide a model for their use that can estimate revenue and costs, as well as resulting rate increases, over a longer time horizon, to the best extent possible given limitations in these types of projections.

The purpose of the financial plan is to arrive at the required revenue for each utility, which serves as the basis for recommendations going forward, and the development of updated rates, if necessary. Then, once the results of the financial plan are reviewed with District staff, we will proceed with the cost-of-service analysis and development of rates, and preparation of a report.

Willdan will develop a comprehensive financial plan that considers updated forecasts for sales, operating expenses, as well as capital expenses, and provides for:

- Sufficient and stable revenue for operations and routine maintenance;
- Adequate debt service coverage for existing and/or proposed debt;
- Accumulation and maintenance of appropriate reserves;
- Functional cost-of-service analysis consistent with Proposition 218 and (AWWA) rate-making standards;
- Anticipated and routine repair and replacement of existing aging pipelines and infrastructure; and
- Major and minor capital projects.

This financial plan will serve as the basis for a full cost of service analysis and ultimately the development of recommendations for updated rates. The cost-of-service analysis will be conducted to ensure any new recommended rates comply with the requirements of Proposition 218, Proposition 26 and recent legal decisions.

The financial plan will be created using a ***highly flexible and interactive model and dashboard*** that will allow us to work collaboratively with the District to present and evaluate different financial scenarios and quickly make changes in underlying assumptions based on feedback and discussions. Our goal will be to arrive at a financial plan that meets the District's objectives, and that provides understanding and education to District staff and ultimately the Board, as they make decisions regarding the proposed rates.

Project Methodology

As described herein, and detailed in our work plan, our approach to this Utility Rate Study is ***built around three primary objectives:***

1) *Working collaboratively with the* District to develop the comprehensive financial plan and model for the utilities;

2) Using the model to develop and evaluate various rate, financial, and capital funding scenarios; and

3) Arriving at a final plan and set of recommended rates that have a clear and transparent rationale and basis.

We propose to conduct this process in a way in which staff and stakeholders gain understanding throughout the process of how the plan is developed, and how policy and financial decisions affect it, so that we can clearly communicate the process and results to the District Board and the community.

We will develop a robust 10-year pro forma financial model to demonstrate the results of various analyses and aid detailed policy and education discussions with District staff and District Board. It will serve as the basis for developing rate structures that provide for long-term financial stability, reflect levels of service demand for different customer classes, and comply with the requirements of Prop 218.

During this project, we will utilize our Microsoft Excel-based model, with its interactive dashboard, as a comprehensive financial tool to allow planning and evaluation of variable inputs and assumptions, thereby creating a thorough analysis of revenue requirements to address the District's goal of ensuring predictable and stable revenue. This analysis is then seamlessly integrated with the rate development component of the model to demonstrate and project various rate design alternatives, and the effects they would have on the District's financial outlook.

The model is used in meetings, in order to efficiently cycle through rate scenarios and establish the most viable rate plans for the District. During these interactive meetings, we invite District staff to participate in scenario planning / "what-if" sessions, where we use the dashboard to demonstrate and evaluate the financial/rate impact of alternative data (CIP, operating costs, etc.) and assumptions (interest rates, customer growth, cost escalation, etc.) in real-time to focus on the most critical drivers of the analysis. This ensures the resulting rate plan alternatives are viable from a financial, operational, managerial, and political perspective.

Scope of Work

The following proposed scope of work is intended to capture the goals and objectives of the District, and for brevity outlines the steps and work plans for both the water and wastewater utilities. Willdan is confident the following will effectively meet the stated project objectives. A final scope and schedule will be determined following the selection of a consultant and based on further discussions with staff. Willdan's work plan will culminate in the successful development of water and wastewater projections and rates for five years, an extended ten-year financial plan, and the education of staff and key stakeholders.

Project Initiation

Task 1.1 – Data Collection and Review

Task 1.1.1 – Data Collection. The District will be provided with an initial list of basic data needed to conduct the study. The data request may include, but will not be limited to:

- Financial and operating data (budgets, audits, financial statements, cash balances, etc.);
- Customer account and billing data;
- Related reports prepared by others (i.e., Master Plans, UWMP);
- System operating data for the utilities;
- Capital improvement programs, fixed asset records;
- Bond statements, debt service schedules;
- Ordinances, previous rate studies, District codes; and
- District financial, debt and reserve policies.

Task 1.1.2 – Data Review. We propose to conduct initial data collection and review prior to the kick-off meeting to allow for a more meaningful discussion to occur. This will allow for our review of data in advance of the meeting so that we can request clarifications or follow-up information, as necessary. However, if the District's preference is to conduct the kick-off prior to collecting data, we will accommodate that request. The data will be reviewed for completeness and to ensure a sufficient understanding of historical utility operations. The data collection and review process will be ongoing throughout the process as the need for additional information arises.

Task 1.2 – Kick-off Meeting and Planning Discussion

Task 1.2.1 – Project Kick-off. Following initial data collection and review, Willdan will conduct a kick-off meeting with District Staff. During this meeting we will discuss goals and objectives of the study, the schedule, constraints, or challenges that may be encountered, stakeholder considerations and objectives, and political concerns. Discussions may center around the following:

- Review of previous rate studies and existing rate structure and areas where existing rates have been successful and/or specific areas of focus;
- Review of recent financial performance for the utilities;
- Recent developments in tiered rates and effects of legal actions;
- Discussion of anticipated significant events (i.e., loss or gain of any major customers);
- Components to incorporate into the updated revenue requirements; such as capital improvements, debt repayment, reserves, annual repair and replacement, ongoing maintenance, cost of imported water, etc.;
- Conduct a detailed review of the data used in the baseline financial forecast; and
- Review and resolve (or develop a plan for resolving) data issues and questions.

For further efficiency and collaboration, the kick-off meeting will include a financial policy discussion. This will serve to address and document the District's financial policies for the utilities to be studied.

Topics of discussion may include:

- Rate design approaches and alternatives;
- Rate policy objectives;
- District financial policies;
- Reserve options and target levels (operating, debt services, rate stabilization, repair, and replacement);

Water and Wastewater Rate Study

Task 2.1 – Development of Financial Model and Plan, Revenue Requirements and Rate Determinants

The following sub tasks encompass the development of detailed historical customer and system analysis, creation of the comprehensive financial and cost-of-service rate model, formulation of cash flow projections of revenues and expenditures over five- and ten-year periods, and the calculation of the required revenue for the water and wastewater utilities, all of which will serve as the basis for recommendations for updated rates. The financial and rate model will provide detailed and comprehensive projections that will be used in the development of rates over the initial five-year period, and projections extended out to ten years for internal District planning.

Task 2.1.1 – Historical Billing Data Analysis. The data request document will provide instructions for the development of historical customer billing information. It is anticipated that the billing information will be provided in a format necessary to summarize the water and wastewater system accounts and billable flows by customer class for a recent historical period for which audited revenues exist. The customers and flows provide the basis on which operating revenues are derived and are therefore the primary factors utilized in reviewing the user rates and charges. As such, the historical billing data provides an important basis for analyses that will be used to develop assumptions for projecting revenues under existing and/or proposed rates.

Task 2.1.2 – Customer and Flow Projections. The water and wastewater accounts and billable flows will be forecasted for a five-year planning period. Such projections will be developed by considering historical growth trends, peak demands, local economic conditions, potential for adding/losing major utility customers, changes in customer class usage patterns over time, and experienced judgment. The billable flow projections will be based on the projected number of utility accounts and a usage per account analysis to differentiate the historical effects of account growth and increased (decreased) average usage by customer class.

Task 2.1.3 – Projected Revenues Under Existing Rates. Projections of utility system revenues under existing rates for the five-year planning period will be developed for water and wastewater, recognizing projected accounts, flow volumes, and usage patterns by customer class (as determined in the billing analysis under the previous tasks).

Task 2.1.4 – Projected Revenue Requirements. Revenue requirements (i.e., system expenditures) will be developed for the utility systems based on an analysis of historical, currently budgeted, and anticipated operating and capital expenditures, with appropriate escalation factors applied. The revenue requirements will be projected on a fiscal year cash flow basis, considering expected operational changes, changes in staffing or operating expenditures for new facilities, system growth occurring from new development, anticipated extraordinary expenses, and allowances for inflation. The projections will include, but not be limited to, the following:

- Operation and maintenance expenses;
- Direct and indirect costs utilizing the cost allocation model currently in process for the District;
- Outlay for annual capital additions and replacements;
- Debt service payments and coverage requirements for existing and anticipated debt;
- Funding of adequate and appropriate reserves; and
- Other expenditures and transfers.

Task 2.1.5 – Projected Operating Results Based on Existing Rates. The projected revenues and revenue requirements will be summarized into a five- and ten-year cash flow statement providing the projected operating results of the water and wastewater systems under the existing rates.

The cash flow statement will be used to estimate annual adjustments in utility revenues necessary to fund operating and capital expenditure requirements, meet existing bond covenant requirements, and maintain prudent utility management practices.

The estimated timing and magnitude of future debt issues required, if any, to finance proposed capital improvements will also be shown. Concurrent with the development of the projected operating results, the study will review the general financial health of the utility operations and, as necessary, make recommendations for changes in fund balances, reserves, and debt service coverage ratios to maintain financial integrity and a stable bond rating. The graphic demonstrates the general rate study methodology and major components of the rate process.

Task 2.2 – Capital Plan Analysis

Task 2.2.1 – Review Capital Improvement Program (CIP) and Asset Replacement Schedules. The District's existing utility system five-year CIP, master plans, and asset replacement schedules will be reviewed in conjunction with conversations with District Staff. The objective of such a review is to gain an understanding of the types of projects scheduled; the timing associated with such projects, associated expenditure requirements, and the sources of funding each project. Examining the impacts on the financial objectives of the water and wastewater utilities, as well as capital projects associated with rehabilitation and replacement of existing facilities, will be a key objective of not only this task but the entire project. The results of the financial plan will also help the District to prioritize projects identified within the CIP.

Task 2.2.2 – Develop Capital Needs Plan. Based on the findings made in the previous task and the Projected Operating Results described in Task 2.1.5, a plan will be developed to provide for the anticipated capital expenditure activities, including debt issuances, relative to the CIP. Such a plan will include consideration for the use of restricted and unrestricted funds, surplus operating reserves, capital recovery fees, and future rate adjustments. The analysis will also develop a projection of reserve fund balances and level of liquidity.

Task 2.2.3 – Capital Projects Model. The CIP will drive the future funding options and will directly impact rates. Therefore, the rate analysis will incorporate the District's current five-year CIP. The rate model will have the ability to run various CIP funding scenarios and quickly show the estimated impact on utility rates. Since we are not serving as the financial/municipal advisor to the District for this project, we will rely on information relative to proposed debt or financing structures provided by the District or its designated financial/municipal advisor.

Task 2.3 – Cost-of-Service Allocations

Task 2.3.1 – Functional Cost Allocations. The analysis will allocate the Test Year revenue requirement (i.e., costs of providing service) to the various cost/rate components that constitute functional classifications of the types of service provided. The functional cost allocations will evaluate such aspects as fixed costs, customer-related costs, and volumetric/usage related costs.

The evaluation of allocation factors associated with applicable costs will be based on existing rate structures applied by the District, meter size, rate structures applied by other comparable utility systems in the region, common industry practice, and standard rate-making principles.

Task 2.3.2 – Determination of Revenue Adequacy. Comparisons of revenues under the existing water and wastewater rates with the allocated costs of service will be evaluated in order to determine the degree of cost recovery by the various cost components, and to identify areas that may possibly require adjustments to align the revenues from each rate component with the allocated costs.

Task 2.4 – Rate Analysis and Design

Task 2.4.1 – Evaluation of Existing Rate Structures. The existing rate structures will be further evaluated for their effectiveness in equitably recovering costs of utility service from each customer class.

The District's current rate structure will be evaluated, and recommendations will be made for potential modifications to the current rates. We will develop up to three (3) alternative rate structures, including potentially tiered rates for water.

As part of the rate design process, Willdan will discuss with departmental staff the current trends and philosophies in utility ratemaking. Based on these discussions, the analysis will develop and recommend a rate design and philosophy that best meets the objectives of the District. The analysis model will be developed in a dynamic manner allowing the District to compare alternative annual incremental/phasing adjustments to achieve funding goals. We will also review other District service charges (other than the utility rates) and provide recommendations for adjustments/changes.

Basic standards for rate design accepted by the industry are:

- **Full Cost Recovery –** rate revenue should provide sufficient income so that, when combined with other sources of funds, funding requirements for the system are covered including, all current long-term liabilities, debt obligations and future expansion-related and R&R-related capital needed to replace aging and infrastructure.
- **Fairness and Equity –** based on cost responsibility as reflected in cost-of-service allocations, in accordance with industry standards.
- **Technically Defensible –** apply industry proven standards and methodologies to help shield the District from potential legal challenges associated with the proposed utility rates.
- **Resource Conservation –** under conditions of scarcity, the pricing of water as a commodity should promote voluntary conservation, discourage unnecessary service use, and extend the availability of supply.
- **Administrative Efficiency –** rates should be understandable to customers and efficiently administered by staff.
- **Customer Acceptance –** customers understand the rates, view them as fair, and consider them to be reasonable compared to other costs and other utilities.
- **Public Health and Welfare –** rates are structured so that essential service usage is encouraged through affordability.

Task 2.4.2 – Rate Structure Alternatives. The rate model will be developed in a dynamic manner such that the Willdan Team and District Staff will be able to analyze "what if" scenarios detailing the financial impacts under each scenario utilizing an iterative dashboard view. Baseline rate structures will be recommended as required to fund the utility systems and consider annual inflationary indexed adjustments to rates as needed to maintain each utility. We will coordinate with District Staff to ensure suggested rate structures are compatible with the District's utility billing software.

Task 2.4.3 – Projected Operating Results Based on Proposed Rates. The proposed user rates and/or rate structures will be applied to the projected customers and flows in order to estimate the revenues to be generated from the proposed rates for the Test Year and the subsequent years of the projection period. The projected revenues will consider possible elasticity effects associated with changes in usage characteristics that may occur from revising the rate structure.

In addition, similar to the process described in Task 2.1, the five-year forecast will identify annual adjustments in utility system revenues necessary to meet existing bond covenant requirements, prudent management practices, and/or sound capital financing considerations.

Task 2.4.4 – Typical Bill Comparison. Comparisons of typical utility bills under the existing and proposed rates will be developed for each customer class under various levels of usage. The selected customer class usage levels will reflect the results of the billing analysis to better demonstrate rate impacts on typical customer accounts in each class.

Task 2.4.5 – Neighboring Utility Comparison. A comparison will be prepared to assess the difference between existing and proposed rates of the District with those of other comparable municipal utility systems in Yuba County, or reasonable proximity.

Preparation of Reports and Proposition 218 Notices

Task 3.1 – Reports, Model and Deliverables

Task 3.1.1 – Preliminary Draft Report. A draft report will be developed to address study findings and proposed recommendations. Contents will also include assumptions relied upon for the projection of customers and usage characteristics, revenue requirements, revenues, operating results, the cost recovery profile for each class, the results of the fully allocated cost of service analyses and any proposed adjustments to the utility rates. Upon completion, an electronic PDF copy and ten copies of the draft report will be provided to staff for review. The report and presentations will also include a comparison of the District's current and proposed water and wastewater rates with five other public agencies.

Task 3.1.2 – Final Report. Based on comments received from staff and other participants during the presentation of the Preliminary Draft Report, the Final Report will be revised to incorporate the agreed upon changes. Upon completion, an electronic PDF copy and two (2) copies of the Final Rate Study Report will be provided to the District.

Task 3.1.3 – Rate Model. The financial rate model developed through the course of this study of the utilities, including the interactive dashboard, will be provided to the District for its unrestricted use. Our model is developed using Excel and will not contain any proprietary components. We will provide guidance and education on the use of the model, including how to incorporate updated financial information and data, such as budgets, fund balances, capital plans, and cost escalators, and see the results and impacts on projected future rates. To the best extent possible and feasible, given limitations in long-term projections and the ability to effectively model them, we will work with the District to evaluate which factors to incorporate into the model, to allow the ability to develop projections over an extended 30-year timeline.

Task 3.2 – Proposition 218 Notice Preparation and Mailing

Task 3.2.1 – Proposition 218 Notices. Based on our over 27-year history with Proposition 218 compliance, we will assist with the drafting of the notices in English and Spanish that will explain:

- The purpose of the rates;
- The reason for the increases;
- How the rates are structured;
- The date, time, and place of the public hearing; and
- Details on what constitutes the existence of a majority protest, as it relates to the implementation of a new/increased utility rate structure.

Task 3.2.2 – Proposition 218 Notice Processing. We will develop the materials, create a parcel database of properties subject to the new proposed rates, and coordinate the printing and mailing of the materials in conjunction with a mailing house that we typically work with on these types of projects. The additional cost for these services is estimated at $1.25 per parcel and includes direct costs associated with the mailing.

Communicating Results - Presentations & Meetings

Task 4.1 – Meetings and Presentations

Task 4.1.1 – Project Kick-Off. As detailed in Task 1.2, a kick-off meeting will be scheduled with District Staff at the start of the project to discuss project requirements, finalize project scheduling/milestones and reporting requirements, and receive overall project direction. This discussion will provide the opportunity to review current utility rates, fees, charges, issues, and deficiencies with staff.

Task 4.1.2 – Project Progress Web Conferences. During the project, and prior to meetings with the District Board Members, team web conferences will be scheduled to present the progression of the analysis to staff in order to obtain input and feedback associated with any rate adjustments that may be presented. These web meetings will assist in the completion of rate design for the utility systems and guide the development of the draft report.

Task 4.1.3 – Draft Financial Plan Meeting. The results of the Preliminary Financial Plan and Revenue Requirements will be presented to staff for comment, feedback, and direction. We have also included a provision for up to two (2) virtual meetings with the District Board if needed, for workshops to present and discuss the status of the studies, present recommendations, and obtain input and feedback. If necessary, prior to the presentation of the Final Report and setting of the Public Hearing date, we can conduct virtual 1 by 1 or 2 by 2 meetings with the Board.

Task 4.1.4 – Draft Study/Final Report Meeting/Public Hearing. The draft report will be reviewed with District Staff to discuss findings and recommendations, gather feedback and address questions. The preliminary and draft report will be presented to the District Board Members in two virtual meetings.

The results of the Final Report will be presented to the District Board during two virtual (2) public District Board meetings, including the Public Hearing required by Proposition 218. Willdan's project manager will be present to address any questions or concerns raised during the public hearings.

District Staff Support / Responsibilities

Willdan recommends that the District assign a key individual as a project manager. As our analyses are developed, the District's appointed project manager will:

1) Coordinate responses to informational requests;
2) Coordinate review of work products; and
3) Identify appropriate staff members for participation in meetings and facilitate in scheduling.

We will ask for responses to initial information, follow-up requests, and comments on reports within five business days or otherwise agreed upon timetable. If there are delays, the project manager will follow up with the parties involved to establish an estimated date for the delivery of information and/or feedback. To ensure continued progression, the project manager will reconvene with the team to identify tasks that can be started while waiting for requested data.

Project Disclaimer

Willdan is a registered municipal advisory firm with the U.S. Securities and Exchange Commission ("SEC"), as such the Olivehurst Public Utilities District represents, acknowledges, and agrees that Willdan is not acting as a "municipal advisor" (as defined by the SEC), to the District, in any capacity as it relates to the project proposed in this Utility Rate Study RFP.

(i) The District uses, or may use, the services of one or more municipal advisors registered with the SEC to advise it in connection with municipal financial products and the issuance of municipal securities;

(ii) The District is not looking to Willdan to provide, and the District shall not otherwise request or require Willdan to provide any advice or recommendations with respect to municipal financial products or the issuance of municipal securities (including any advice or recommendations with respect to the structure, timing, terms, and other similar matters concerning such financial products or issues);

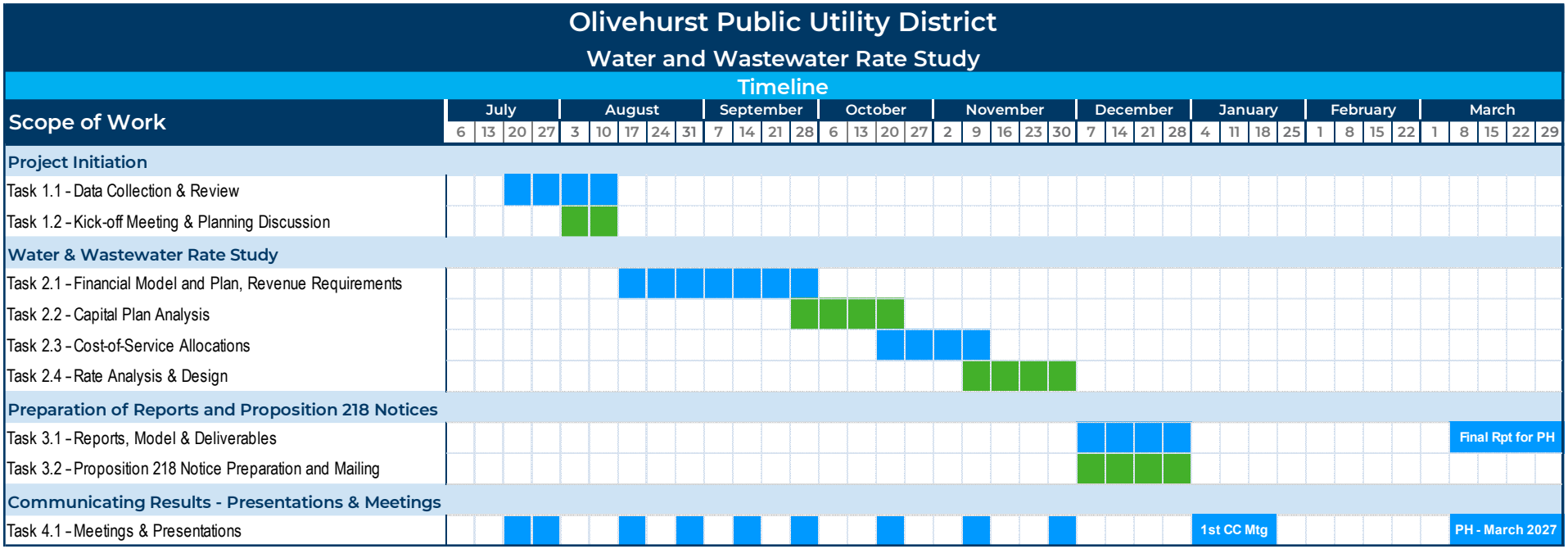
(iii) The provisions of this proposal and the services to be provided hereunder as outlined in the scope of services are not intended (and shall not be construed) to constitute or include any municipal advisory services within the meaning of Section 15B of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations adopted thereunder;

(iv) For the avoidance of doubt and without limiting the foregoing, in connection with any revenue projections, cash-flow analyses, feasibility studies and/or other analyses Willdan may provide the District with respect to financial, economic or other matters relating to a prospective, new or existing issuance of municipal securities of the District, (A) any such projections, studies and analyses shall be based upon assumptions, opinions or views (including, without limitation, any assumptions related to revenue growth) established by the District, in conjunction with such of its municipal, financial, legal and other advisers as it deems appropriate; and (B) under no circumstances shall Willdan be asked to provide, nor shall it provide, any advice or recommendations or subjective assumptions, opinions or views with respect to the actual or proposed structure, terms, timing, pricing or other similar matters with respect to any municipal financial products or municipal securities issuances, including any revisions or amendments thereto; and

(v) Notwithstanding all of the foregoing, the District recognizes that interpretive guidance regarding municipal advisory activities is currently quite limited and is likely to evolve and develop during the term of the potential engagement and, to that end, the District will work with Willdan throughout the term of the potential Agreement to ensure that the Agreement and the services to be provided by Willdan hereunder, is interpreted by the parties, and if necessary amended, in a manner intended to ensure that the District is not asking Willdan to provide, and Willdan is not in fact providing or required to provide, any municipal advisory services.

Project Schedule

The following outlines the estimated number of weeks to complete each task outlined in our scope of services. A specific project schedule will be developed following consultation with, and in concert with, District staff. We will discuss this schedule during the kickoff process and will make adjustments, if needed.



Related Project /Client Information

Provided below are project descriptions, which include client contact information, demonstrating Willdan's ability to provide multi-services to a single client. We are proud of our reputation for customer service and encourage you to contact our clients regarding our commitment to excellence.

Willdan Financial Services Project Specific Experience References			
Client	**Contact**	**Project Description**	**Project Budget**
City of Hemet, CA	Noah Rau, P.E. Public Works Director/City Engineer Tel #: (951) 765-2360 Email: NRau@hemetca.gov	**Water and Wastewater Utility Rate Study**	**Original Budget:** $46,770 **Amendment Budget:** $52,410 Amended to include Drought rate scenarios.
City of Farmersville, CA	Steve Huntley Director of Finance and Administration (Now with Chandler Asset Management) Tel #: (800) 317-4747 Email: SHuntley@chandlerasset.com	**Water and Wastewater Utility Rate Study**	**Original Budget:** $46,590
City of Buellton, CA	Rose Hess Public Works Director Tel #: (805) 686-0137 Email: RoseH@cityofbuellton.com	**Water, Sewer Rate, and Connection Fee Study**	**Original Budget:** $55,950

Project Team

Our management and supervision of the project team is very simple: fill every position with experienced, capable personnel in sufficient numbers to deliver a superior product to the District, on time and on budget. With that philosophy in mind, we have selected the following professionals for this engagement. We are confident that our team possesses the depth of experience that will successfully fulfill your desired work performance.

Organizational Chart

Olivehurst Public Utilities District
Project Team

Key Team Member	Project Role	Responsibility to the Engagement
Chris Fisher Vice President/Director	Principal-in-Charge / Project Manager	▪ Project and task oversight; ▪ Produce key elements of the analysis; ▪ Responsible for project deliverables; ▪ Model development; ▪ Stakeholder outreach; and ▪ Meeting and presentation attendance.
Michael Cronan Senior Project Manager	Lead Consultant	▪ Collect, interpret, and analyze key data; ▪ Produce key elements of the analysis; ▪ Lead for model development and analysis; ▪ Report preparation; and ▪ Meeting and presentation attendance.
Alice Bou Project Manager	Consultant	▪ Collect, interpret, and analyze key data; ▪ Produce key elements of the analysis; ▪ Lead for model development and analysis; ▪ Report preparation; and ▪ Meeting and presentation attendance.
Tiffany Sturms, MSA Senior Financial Analyst	Project Analyst	▪ Collect, coordinate, interpret, and analyze key data; ▪ Assistance with model development; and ▪ Report preparation.

Extensive Public Sector Experience

Willdan has delivered industry-leading financial, energy and engineering solutions that have transformed government and commerce for over 60 years. Willdan Financial Services advises governments throughout the United States and abroad about financial and economic consulting. We serve all levels of government and collaborate with government staff, constituents, developers, officials, and other professional services firms. Our team recognizes the challenges local governments face in the current economic climate, and we have adapted our practice to support agencies' revised budget policies and public service priorities.

It is important to note that Mr. Fisher has been with Willdan for 27 years, ensuring the Olivehurst Public Utilities District of continuity and dedication in staffing during the completion of the project

Resumes

Resumes for Willdan's project team are presented in the appendices as required.

Staff Summaries

Chris Fisher | Vice President

As Vice President and Director of Financial Consulting Services for Willdan Financial Services, Mr. Fisher has more than 27 years of experience providing financial consulting services to public agencies throughout California, Arizona, Texas, Colorado, and Florida. Throughout his career, he has successfully directed a wide range of projects involving utility rate studies, cost-of-service analyses, and strategic financial planning efforts, while coordinating resources across Willdan's internal teams and partner firms to ensure seamless project delivery.

Michael Cronan | Senior Project Manager

Mr. Michael Cronan is a Senior Project Manager within Willdan's Financial Consulting Services group, with nine years of experience specializing in utility rate and financial planning engagements. His expertise includes water, wastewater, recycled water, and stormwater utility studies, with a focus on developing innovative and practical financial strategies tailored to each agency's operational and capital needs. Mr. Cronan has extensive experience preparing both short-term and long-term financial plans for utilities of varying sizes and complexities.

Alice Bou | Project Manager

Ms. Alice Bou is a Project Manager within Willdan Financial Services' Financial Consulting Group and brings more than 21 years of finance and accounting experience spanning both the public and private sectors. Her background includes extensive experience in financial oversight, budgeting, and utility financial analysis, providing clients with practical and comprehensive financial solutions. For the past eight years, Ms. Bou has specialized in utility rate consulting, leading the development and implementation of water, wastewater, recycled water, and stormwater rate and fee studies for municipalities throughout California.

Tiffany Sturms, MSA | Senior Project Analyst

Ms. Tiffany Sturms is a Senior Project Analyst within Willdan's Financial Consulting Services group, where she supports utility rate studies, user fee studies, assessments and non-ad valorem analyses, and other municipal financial consulting assignments. She is highly skilled in financial modeling and data analysis, with advanced proficiency in Microsoft Excel and related analytical tools.

Breadth of Directly Related Experience

Willdan is a leading firm in California providing services to conduct Utility Rate Study projects, and one of the leaders throughout the Country. We have completed hundreds of successful similar studies in California, in addition to projects in Arizona, Colorado, Texas, Florida, Tennessee, South Carolina, North Carolina, and Virginia.

Extensive Public Sector Experience

For more than 60 years, Willdan has proudly contributed to the development of groundbreaking financial, energy, and engineering solutions. Our expertise has played a pivotal role in transforming the landscape of government operations, driving efficiency, innovation, and sustainable growth for our clients.

Experienced Team

Our employees know and understand the problems facing local government under the current economic climate, and we have oriented our practice to support an agency's modified budget policies and public service priorities. The proposed project team consists of four subject matter experts.

Community Investment

Much of our success in developing impactful programs and studies is due to our experiences in meeting with citizen / stakeholder groups and elected officials. Our ability to explain technical information in a concise, understandable manner is a fundamental reason for our high degree of success. Willdan staff takes the time to ***include and inform the Community***.

Workload Commitments

We do not anticipate staffing changes during the course of the project, however, should the situation arise, any change in team members will be discussed and approved in concert with the City prior to the change being made. Mr. Fisher has been assigned to serve as the City's representative; and has been selected for this role due to his experience, which includes the preparation and supervision of numerous utility rate studies, as well as his experience presenting to governing bodies, stakeholders, and industry groups.

The Financial Consulting Services group is made up of over 30 professionals who can be called upon as needed; we are confident that our team possesses the depth of experience that will successfully fulfill the desired work performance. Willdan Group Inc. is composed of over 1,800 employees, including a cadre of public finance experts.. If necessary, Mr. Fisher can recruit additional, qualified individuals from our employee roster to assist with the completion of this engagement to deliver the final materials on time and within budget.

Time Allotment

Provided in the table below is the expected hours allotment.

Olivehurst Public Utility District
Water and Wastewater Rate Study
Scheduled Time Allocation

	C. Fisher PIC/PM	M. Cronan Lead Consultant	A. Bou Consultant	T. Sturms Project	Total Hours
Scope of Work					
Project Initiation	1	3	4	6	14
Water & Wastewater Rate Study	16	26	44	40	126
Preparation of Reports and Proposition 218 Notices	5	5	10	12	32
Communicating Results - Presentations & Meetings	12	8	8	2	30
Total Hours Allocation	**34.0**	**42.0**	**66.0**	**60.0**	**202.0**

Exceptions

Willdan 's legal team has reviewed the District's agreement and kindly requests consideration of the following addition noted in green:

35. Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the Client nor the Consultant, their respective officers,..... Consultant's total liability for claims arising out of the performance of services of this Agreement shall not exceed the amount(s) that Consultant has been paid for the services.

Appendices

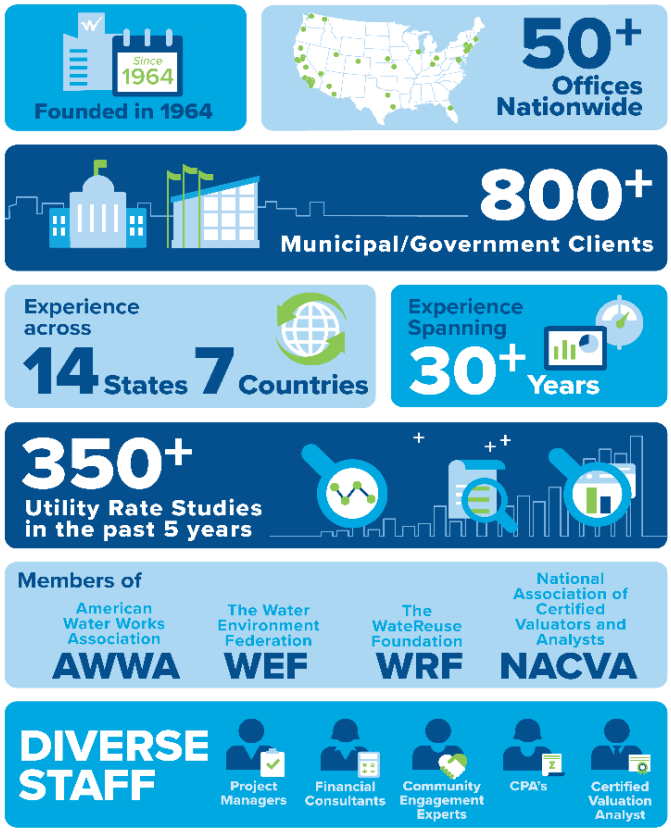
Ancillary Materials

Firm Profile

Willdan Group, Inc. (WGI), was founded in 1964 as an engineering firm working with local governments. Today, WGI is a publicly traded company (WLDN). WGI, through its divisions, provides professional technical and consulting services that ensure the quality, value and security of our nation's infrastructure, systems, facilities, and environment. The firm has pursued two primary service objectives since its inception—ensuring the success of its clients and enhancing its communities.

A financially stable company, Willdan has over 1,800 employees working in more than 50 offices across the U.S. Our employees include a number of nationally recognized Subject Matter Experts for all areas related to the broadest definition of connected communities—***four of whom are committed to contribute their expertise throughout the duration of the Olivehurst Public Utilities District's Utility Rate Study engagement.***

We have solved economic, engineering and energy challenges for local communities and delivered industry-leading solutions that have transformed government and commerce. Today, Willdan is leading our clients into a future accelerated by a change in resources, infrastructure, technology, regulations, and industry trends.



Willdan Financial Services

Established on June 24, 1988, Willdan Financial Services, is a national firm and is one of the largest public sector economic and financial analysis consulting firms in the United States. Since that time, we have helped over 800 public agencies successfully address a broad range of infrastructure challenges.

Our team is focused on actively supporting our clients by ensuring they stay informed about the latest advancements in our areas of expertise. We believe that by sharing this knowledge, we can empower our clients to make informed decisions and achieve their objectives.

Willdan assists local public agencies by providing the following services:

Willdan Financial Services
Services Provided

- Utility rate and cost of service studies;
- User fee studies;
- Cost allocation plan studies;
- Real estate economic analysis;
- Municipal advisory services;
- District administration services;
- Property tax audits;
- Economic development strategic plans;
- Development impact fee establishment and analysis;
- Tax increment finance district formation and amendment;
- Feasibility studies;
- Housing development and implementation strategies;
- Arbitrage and continuing disclosure services;
- Debt issuance support; and
- Long-term financial plans and cash flow modeling.

Utility Rate Study Experience

For over two decades, Willdan team members have provided professional consulting services, which entail financial planning; rate and cost-of-service studies including wholesale analysis; alternative and feasibility analyses; and operational and management studies for water, reclaimed water, wastewater, solid waste, and stormwater utility clients across the United States.

Additionally, Willdan team members were involved with the development of the rate-setting methodologies set forth in the American Water Works Association (AWWA) M1 manual "Principles of Water Rates, Fees and Charges," and the AWWA M29 manual, "Water Utility Capital Financing." Willdan is nationally recognized for its expertise with team members frequently being called upon to speak or instruct on utility financial matters, as subject matter experts, including at the AWWA Utility Management conference.

Mr. Kevin Burnett, a Willdan Principal Consultant, was involved in the current update to the M1 manual.

We are also deeply familiar with the procedural and substantive requirements of Proposition 218. Willdan staff (including Mr. Fisher, proposed as the principal-in-charge/project manager for this engagement) speak regularly to California industry groups such as the California Special Districts Association (CSDA) and the California Society of Municipal Finance Offices (CSMFO). Further, we recently completed a water and wastewater study for the City of Lakeport where ***two proposed team members proposed for this engagement worked closely with a leading Proposition 218 law firm in the state to update their tiered water rate structure to be compliant with the requirements of Proposition 218 and the City of San Juan Capistrano decision. We will bring this recent experience and insight to the District's engagement.***

Willdan team members are experienced in a broad range of utility planning services and therefore understand the importance of an approach that integrates elements of utility planning, engineering, and finance. Willdan team members possess considerable experience in utility rate and cost-of-service studies and have performed these services for hundreds of utilities throughout the country. Our team includes staff with public sector experience spanning 30 years, and staff on the forefront of utility ratemaking and rate-modeling. In addition, team members have held positions as finance directors, deputy city managers, and auditors, and therefore understand the financial, operational, and political realities faced by governmental staff and management; we develop solutions that take these realities into account.

Willdan Financial Services

Utility Experience and Expertise

- Retail and wholesale rate studies
- Revenue sufficiency analyses
- Utility management and policy assistance
- Connection fee / tap fee studies
- Miscellaneous fee and charge studies
- Renewal and replacement sufficiency analyses
- Comprehensive alternatives analyses
- Capital project funding studies
- Interactive rate model development with dashboards showing key performance indicators
- CIP financial scenario planning
- Rate ordinance drafting
- Billing system validation/rate testing
- Bond feasibility reports
- Valuation/divestiture studies
- Life Cycle Costs Analyses

Willdan will work with the District to identify and prioritize operational and fiscal objectives, and match these to specific rate attributes; and use this information throughout the engagement to develop a comprehensive financial plan and design utility rates that effectively meet these goals. The culmination of our analyses will be rate policies that guide the rate setting process, and a financial management plan that develops projected system operating results for the utility for the forecasted period. Willdan will employ its proven interactive approach, coupled with advanced financial modeling techniques to design rates and a financial plan that meet established goals and performance criteria. These modeling techniques serve as a powerful decision-making tool and provide the District with genuine business solutions and recommendations as to the strategic direction of its utilities.

During rate and financial planning projects we employ tools and techniques which focus on consensus building among stakeholders to ensure the team understands the future financial implications of current management decisions. Our extensive project expertise is bolstered by our unique interactive financial planning process and model.

Similar Studies

The abbreviated table of experience provided below highlights representative projects of a similar scope to the services requested. The projects included were performed through the Temecula office within the past five years and demonstrate the depth of Willdan Financial Services' utility-related experience. A map is also included to demonstrate our Firm's experience.

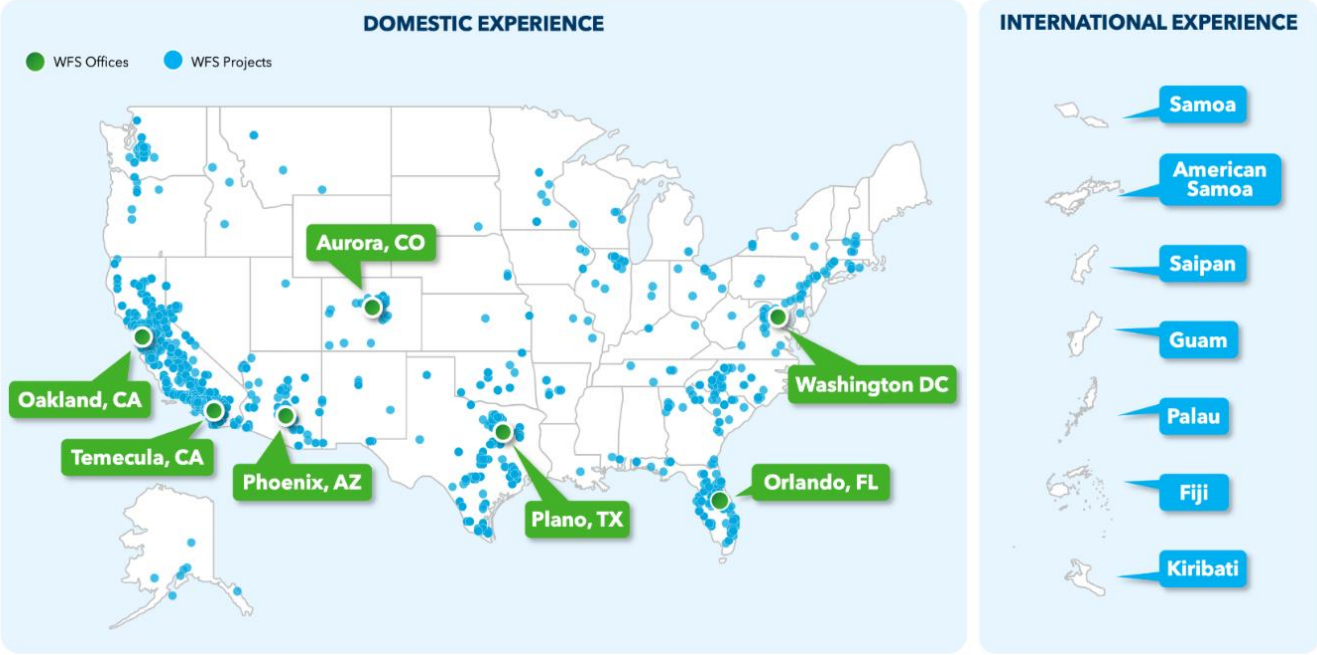
Willdan Financial Services
Temecula Office | Utility Related Experience

Agency	Project
City of Arvin, CA	Sewer Rate Study and Cost Allocation Plan
City of Atwater, CA	Solid Waste Rate Study
City of Avenal, CA	Water and Sewer Rate Study
City of Barstow, CA	Sewer Rate Study
City of Bell, CA	Sewer Rate Study
City of Blythe, CA	Water and Sewer Rate Study
City of Brighton, CO	Water Rate Study
City of Buellton, CA	Water and Sewer Rate and Connection Fee Study
City of Calexico, CA	Water and Sewer Rate and Connection Fee Study
City of Ceres, CA	Water and Wastewater Rate Study
City of Claremont, CA	Sewer Rate Study and Solid Waste Rate Study
City of Coachella, CA	Proposition 218 Sewer Mailing
City of Crescent City, CA	Sewer Rate Study
City of Davis, CA	Wastewater Rate Study and Connection Fee Study
City of Delano, CA	Water, Sanitary Sewer, Solid Waste Utility Rate Study
City & County of Denver, CO	Sanitary Sewer & Storm Drainage Benchmarking and Storm Drainage Impact Fee Study
City of Dinuba, CA	Water, Sewer, & Solid Waste Rate Study
City of Durango, CO	Water and Wastewater Rate Study
City of East Palo Alto, CA	Sewer Impact Fee Study
City of Farmersville, CA	Water and Wastewater Utility Rate Study
City of Fillmore, CA	Water and Sewer Rate Study
City of Grover Beach, CA	Water, Wastewater, and Stormwater Financial Plan & Utility Rate Study
City of Guadalupe, CA	Water and Sewer Rate Study
City of Hemet, CA	Water and Sewer Rate Study
City of Hercules, CA	Wastewater Financial Plan and Connection Fee Study
City of Ione, CA	Serwer Rate Study
City of Kingman, AZ	Water and Sewer Rate Study
City of La Palma, CA	Water and Sewer Rate Study
City of Lakeport, CA	Water and Sewer Rate Study, and Connection Fee Study
City of Livingston, CA	Water, Wastewater and Solid Waste Rate Study
City of Lomita, CA	Water Rate Study
City of McFarland, CA	Water, Sewer, and Solid Waste Rate Study and Cost Allocation Plan

Willdan Financial Services Temecula Office | Utility Related Experience	
Agency	**Project**
City of Norwalk, CA	Water Rate Study
City of Patterson, CA	Sewer Rate Study
City of Pinole, CA	Wastewater Rate and Fee Study
City of Port Hueneme, CA	Water, Wastewater and Solid Waste Rate Study
City of Richmond, CA	Wastewater Rate Study
City of San Jacinto, CA	Water and Wastewater Rate Study
City of Seaside, CA	Water Rate and Capacity Fee Study
City of Soledad, CA	Water and Sewer Rate Study
City of Stanton, CA	Sewer Rate and Connection Fee Study
City of Twentynine Palms, CA	Sewer Treatment Facility Fair Share and Sewer Rate Analysis
City of Vacaville, CA	Water and Wastewater Rate Study
County of San Diego, CA	Sewer Rate and Standby Charge Study
McKinleyville CSD, CA	Water and Wastewater Rate and Capacity Fee Study
Monterey One Water, CA	Wastewater Rate and Capacity Fee Study & Cost Allocation Plan
San Antonio Water Company, CA	Water Rate Study
Santa Ynez Community Services District	Wastewater Rate and Capacity Fee Study
Town of Apple Valley, CA	Sewer Rate and Nexus Study

Experience Map

A graphical representation of Willdan's geographical client presence is depicted below of recent utility rate and financial projects completed within the last few years.



Sample Study

Provided as a separate file is a study completed for the City of Vacaville.

Full Resumes

Chris Fisher

Principal-in-Charge/Project Manager

Mr. Chris Fisher has been selected to serve as the principal-in-charge and project manager of the City's engagement, due to his experience managing multi-disciplinary teams. He also possesses extensive knowledge specific to Proposition 218 compliance.

Mr. Fisher is a Willdan Financial Services Vice President and the Financial Consulting Services Director. With 27 years at Willdan, he has managed an array of financial consulting projects for public agencies throughout California, Arizona, Texas, Colorado, and Florida; coordinating the activities of resources within Willdan, as well as those from other firms working on these projects.

Education

Bachelor of Science, Finance; San Francisco State University

Areas of Expertise

Multi-disciplinary Team Management

Special District Formations

Cost of Service Studies

Proposition 218

Utility Rate Studies

Affiliations

California Society of Municipal Finance Officers

Municipal Management Association of Northern California

California Municipal Treasurers Association

27 Years' Experience

Select Relevant Experience

Monterey One Water, CA — Wastewater Utility Rate Study and Cost Allocation Plan: Mr. Fisher serves as the Principal-in-Charge for the Monterey One Water engagement. In this role, he is overseeing the development of a comprehensive financial model and evaluating alternative funding and rate scenarios for an extensive utility that provides service to more than 200,000 customers. He is worked closely with the project team and Agency staff to develop a long-term financial plan and recommend appropriate strategies and revenue adjustments that supported the Agency's operational and capital funding needs. ***All analysis and substantive work has been completed, reports prepared and finalized, results presented to the Board of Directors, with just the Public Hearing remaining.***

City of Lakeport, CA — Water and Sewer Rate Study: Mr. Fisher led the engagement for Lakeport in the role of the principal-in-charge. The project included the completion of a comprehensive financial model, with multiple iterations and alternatives to address a situation where the City had not increased rates in several years. He led discussions with staff to outline the options and make adjustments, as necessary. He also worked closely with the City and its legal counsel to update rates and to incorporate tiers while ensuring compliance with Proposition 218 and the San Juan Capistrano Court decision.

City of Hemet, CA — Water and Wastewater Utility Rate Study: Mr. Fisher was the principal-in-charge and project manager for this City of Hemet engagement. As project lead, he oversaw the development of the comprehensive financial model and preparation of alternative funding and rate scenarios. He collaborated closely with the City to develop the financial plan and recommended appropriate revenue adjustments. Upon completion, Mr. Fisher presented the findings on multiple occasions to City staff, the Planning Commission/Infrastructure Committee, and the City Council.

City of Farmersville, CA — Water and Wastewater Utility Rate Study: Mr. Fisher was the principal-in-charge and project manager for the City of Farmersville engagement, leading his team in developing the financial plan, cost-of-service analysis, calculated new rates, prepared the rate study report, and Prop 218 notice, presented the results to the City Council, and coordinated the mailing of the notice.

City of Buellton, CA — Water & Sewer Utility Rate Study: Mr. Fisher is serving in the role of principal-in-charge for the City's comprehensive water and sewer rate study. The study is essentially complete, with all analytical work completed, reports and presentations delivered, and only the public hearing remaining. He oversaw the creation and refinement of the financial plan and rate model and presented the results to City Staff and the City Council. Two-by-two sessions were conducted with the Council members to educate them on the rate study process and results, since they didn't have previous experience in this area. Responsibilities also included review of work progress, documents and deliverables throughout the project, creation of the Prop 218 public hearing notice, and quality control in all aspects of Willdan's work for the City.

City of Vacaville, CA — Water & Sewer Utility Rate Study: Mr. Fisher served as the principal in charge of developing the comprehensive financial and rate model, along with several alternative financial plans, for a Water and Sewer Rate Study for the City of Vacaville. The City hadn't increased rates in more than eight years and was faced with significant costs for capital projects to address Hexavalent Chromium regulatory compliance. The recommended financial plan and proposed rates were presented to the City Council and were adopted at a public hearing in June 2025.

C. Fisher
Resume Continued

City of La Palma, CA — Water and Wastewater Utility Rate Study: Mr. Fisher served as the Project Manager for the City of La Palma's last two water and wastewater utility rate studies. Both studies included a five-year model and financial plan that included a proposed five-year schedule of adjusted rates to ensure continued revenue sufficiency and stability.

City of Lomita, CA — Water Rate Study: Mr. Fisher was the assigned principal-in-charge for the City's Water Rate Study. The study included detailed capital plan analysis, reserve analysis, and live evaluation of alternatives to mitigate necessary revenue and rate adjustments with a rate sub-committee as well as the City Council.

City of Hercules, CA — Sewer Rate Study: Mr. Fisher led a multi-year effort with the City of Hercules to complete a comprehensive sewer rate study. The year prior to the actual rate study we prepared detailed projections and alternatives to discuss in advance with the City Council, to prepare them for the rate study that would follow. In 2024/2025 we completed the actual rate study which included preparation of a detailed financial and sewer rate model and cost-of-service analysis. Rates had remained static for several years through the pandemic and the City was facing increased operating costs and the need to fund several significant capital projects. Multiple scenarios were developed and discussed and ultimately presented to the City Council. Rates were successfully adopted in July 2025.

City of Grover Beach, CA — Water and Wastewater Rate Study: In the role of principal-in-charge, Mr. Fisher led the City's utility rate study, which included the preparation of a comprehensive financial plan, along with cost-of-service analysis and development of updated rates. The financial plan prepared contained various options and scenarios for City Staff's consideration, including shifting from a uniform water rate structure to either a two- or three-tiered structure. The City's utilities were in relatively good health, so major increases were not recommended.

City of Calexico, CA — Water & Sewer Utility Rate Study: Mr. Fisher served in the role of principal-in-charge of the City's comprehensive water and sewer rate study. He led the development of the financial plan and model, and the rate analysis, and participated in the presentation of results to City Staff and the City Council. His responsibilities also included the scheduling of key meetings and deliverables, review of progress throughout the development of the project, and quality control.

City of McFarland, CA — Water, Sewer, and Solid Waste Rate Study and Cost Allocation Plan: In the role of principal-in-charge, Mr. Fisher led the City's Water, Sewer, and Solid Waste Rate Study and Cost Allocation Plan. Mr. Fisher oversaw the development of a comprehensive model and five year financial plan, required reports and documents, recommended rate updates, and presented results to the City management team and the City Council.

City of Claremont, CA — Sewer Rate Study: Mr. Fisher was the principal-in-charge for the City's sewer rate study. The team generated multiple alternative rate structures for the City in preparation of updating their sewer utility rates and presented them to staff for their consideration.

City of Guadalupe, CA — Water and Sewer Utility Rate Study: Mr. Fisher served as the principal-in-charge for the City's recent water and sewer rate study, providing technical assistance throughout the project, conducting working discussions with City Staff to evaluate financial and rate options, and coordinating the project. He oversaw the development of the comprehensive financial plan, and preparation of rate alternatives and analysis. This engagement included the development of a comprehensive financial model and updated water and sewer rates, including identification of the rates of comparable jurisdictions and a comparative rate and cost analysis.

McKinleyville Community Services District, CA — Water and Wastewater Capacity Fee Study: Mr. Fisher served as principal-in-charge of this project. The prior connection fees had not been updated for a number of years and were relatively low in comparison to similar agencies. In addition, there were several new local development projects in the planning stages requiring the District to provide utility services; placing even greater demand upon existing facilities and possibly requiring expansion of existing facilities, or construction of new ones. Willdan worked with staff to compile a list of proposed capital improvements and their estimated cost and conducted an analysis of existing and proposed development within the District's service boundaries.

Michael Cronan

Lead Consultant

Mr. Michael Cronan is a senior project manager with 9 years of experience in Willdan's Financial Consulting Services group. He specializes in rate study engagements that encompass water, wastewater, reuse, and stormwater systems, employing innovative utility financial planning tools to ensure optimal outcomes.

His expertise focuses on developing both short-term and long-term financial plans for utilities of all sizes. Throughout his career, he has built a robust track record, working closely with diverse clients across the country to deliver practical solutions.

Education

Bachelor of Arts and Science; University of Central Florida

Areas of Expertise

Utility Rate Studies

User Fee Studies

Financial Forecast Modeling

9 Years' Experience

Select Relevant Experience

Monterey One Water, CA —Wastewater Utility Rate Study and Cost Allocation Plan: Mr. Cronan is serving as lead Technical Consultant for the Monterey One Water engagement, leading the development of the rate and financial model, and all aspects of the financial and cost-of-service analysis. ***The study is currently ongoing.***

City of Lakeport, CA — Water and Sewer Rate Study: Mr. Cronan provided analytical support to the senior project team members and led the development of the financial model as the project analyst for the City's ongoing utility rate study. He worked directly with staff at the City to evaluate financial plan alternatives, particularly for sewer where years of deferred rate increases, and a significant capital plan required careful consideration. He also led the revamp of the City's cost-of-service approach, working closely with a leading Prop 218 attorney, to ensure rates were compliant with State law.

City of Hemet, CA — Water and Wastewater Utility Rate Study: Mr. Cronan served as the lead consultant for the Hemet utility rate study, working closely with Mr. Fisher to develop the comprehensive financial model for the water and sewer utilities, and evaluate alternative funding and rate scenarios to balance the financial objectives of the two utilities with the impact on customers. He oversaw the collection and validation of financial data, budgets, and capital plans, and ensured their effective incorporation into the rate and financial model. He also prepared the rate report and presentations.

City of Farmersville, CA — Water and Wastewater Utility Rate Study: Mr. Cronan served as the lead consultant for the City of Farmersville engagement, collecting and verifying financial data, debt service schedules, debt covenants, and financial policy documents; he also played a central role in model development and assisted with the Proposition 218 noticing process.

City of Buellton, CA — Water & Sewer Utility Rate Study: Mr. Cronan was the project manager and lead technical consultant for the City's comprehensive water and sewer rate study. He led the collection and verification of data, creation of the model and financial analysis, development of alternative scenarios for evaluation by City staff and elected officials and completed the report and other critical documents. He also was responsible for creation of comprehensive customer and mailing databases.

City of Vacaville, CA — Water & Sewer Utility Rate Study: Mr. Cronan was the project manager and directed the technical work and development of a comprehensive financial and rate model and multiple alternative financial plans for a Water and Sewer Rate Study for the City of Vacaville. He collected and verified all data, led the development of the financial plan and model, including multiple scenarios to address different potential approaches to the City's capital plan, prepared the report and participated in all meetings.

City of Hercules, CA — Sewer Rate Study: Mr. Cronan was the lead consultant for a multi-year effort with the City of Hercules to complete a comprehensive sewer rate study. He worked with the City in advance of the actual rate study to study the utility's financial situation, prepare projections that would educate the City Council and guide the actual rate study the following year. For the rate study, he led the gathering and validation of data, development of the financial/cost-of-service/rate model and preparation of the report and presentations. Multiple scenarios were developed and discussed to address increasing operating and maintenance costs and funding for capital projects. Rates were successfully adopted in July 2025.

City of Guadalupe, CA – Water and Wastewater Rate Study: Mr. Cronan provided analytical support for the City's utility rate study. He was responsible for gathering and verifying data, as well as assisting with the development of the model. He also worked directly with City Staff to present results and options and develop alternatives.

M. Cronan
Resume Continued

City of La Palma, CA — Water and Wastewater Utility Rate Study: Mr. Cronan was assigned to the La Palma engagement as the lead financial analyst. He worked directly with staff at the City to conduct financial analysis, which included the evaluation of alternatives for rate adjustments that incorporated different capital funding scenarios and operating budget assumptions, as well as the preparation of reports and Prop 218 documents. He was also instrumental in the development of the financial model. ***The project team was re-engaged in 2025 to conduct another study.***

City of Richmond, CA — Wastewater Rate Study: Mr. Cronan served as the project analyst and provided support for the City's rate study. He gathered and verified data for the project manager and lead project consultant and played a significant role in the development of the customer database and financial model.

McKinleyville Community Services District, CA — Water and Sewer Utility Rate Study: Willdan was retained to update the models, develop the CSD's water and sewer rates and assist with the required Proposition 218 noticing process. Mr. Cronan provided analytical support to the project's senior team and is providing the same support for the ongoing update to the previous study.

City of Claremont, CA — Sewer Rate Study: Mr. Cronan provided analytical support for the City's sewer rate study. He gathered and verified data for the project manager and principal consultant.

City of Twentynine Palms, CA — Sewer Treatment Facility Fair Share and Sewer Rate Analysis: Mr. Cronan provided analytical support in the development of the model to support to the project's senior team on the City of Twentynine Palms' sewer treatment facility fair share analysis. This study also included a sewer rate study, specific to the new treatment plant and its customers.

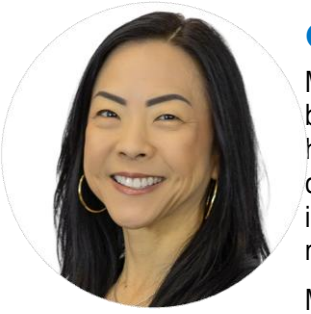
City and County of Denver, CO — Sanitary Sewer and Storm Drainage Benchmarking and Storm Drainage Impact Fee Study: Mr. Cronan served as the lead analyst on a benchmarking study to review and compare the City's current rate structures to those of other front range and national utilities. The intent of the study was to identify potential areas for refinement to the City's current rate structures. Mr. Cronan also served as the lead analyst for developing and implementing first time storm drainage impact fees for the City.

City of Fruita, CO — Sewer Rate Study: Mr. Cronan provided analytical support to the project manager and principal consultant for the City's comprehensive sewer rate study. The study sought to determine the costs of operating the utility for a five-year period while equitably recovering costs from each customer class. An evaluation of changing the current flat rate approach for residential customers to a volume based average winter consumption approach was also evaluated.

City of College Station, TX — Electric Rate Study: Mr. Cronan was the analyst for the City's electric retail rate and cost-of-service study.

GRU/Gainesville, FL — Combined Utility Rate Project: Mr. Cronan assisted senior project staff on Willdan's recent combined utility rate project conducted for Gainesville Regional Utilities, in Gainesville, Florida and included a comprehensive revenue requirement, cost of service analysis, and rate design for their electric, water, wastewater, and natural gas utility systems.

City of Oviedo, FL — Utility System and General Financial Services: Mr. Cronan provides analytical support to the project team members serving the City's on-call engagements for Utility System and Financial Services



Alice Bou

Consultant

Ms. Alice Bou recently joined Willdan Financial Services' Financial Consulting Group as a Project Manager. She brought 21 years of professional finance and accounting experience to the Financial Consulting Group. Throughout her career, she has worked with a diverse range of firms in the public and private sectors in a financial oversight capacity. For the last 8 years, she has specialized as a Utility Rate Consultant, leading the development and implementation of water, wastewater, recycled water, and stormwater rates and fee studies for various municipalities across California.

Ms. Bou has developed long-term financial strategies and comprehensive business plans to support utility rates ensuring financial sustainability and adherence to industry standards and current legal statutes, such as Proposition 218. As part of the rate study process, she has established strategic frameworks that integrate cost-of-service principles, meet revenue requirements, and incorporate customer equity considerations, providing a clear roadmap for rate adjustments, operational efficiency improvements, and alignment with organizational objectives and goals. Ms. Bou has also designed methodologies for calculating capacity fees that accurately reflect the proportional cost of new connections to existing infrastructure; these methodologies integrate factors, such as system demand, capacity needs, and planned capital improvements. Additionally, she has also conducted user fee studies and cost allocation plans, as well as detailed analyses to establish development impact fees that comply with the California Mitigation Fee Act.

Education

Bachelor of Arts; University of California, San Diego

Areas of Expertise

Utility Rate Studies

Proposition 218

Strategic Planning

Cost of Service Studies

Feasibility Analyses

Financial Forecast Modeling

Development Impact Fee Studies

User Fee Studies

Affiliations

California Society of Municipal Finance Officers

Municipal Management Association of Southern California

American Water Works Association

21 Years' Experience

Select Relevant Experience

Ms. Bou is serving as the consultant for these ongoing utility rate studies. She is supporting the collection and validation of financial data, budgets, and capital improvement plans, and incorporating this information into the rate and financial model. She is playing a key role in the preparation of the models and rate study reports and Proposition 218 notice materials and will assist with the City Council presentation.

City of Livingston, CA — Water, Wastewater, & Solid Waste Rate Study: Consultant

City of San Jacinto, CA — Water and Wastewater Study: Consultant

City of La Palma, CA — Water and Wastewater Utility Rate Study

City of Davis, CA — Wastewater Rate Study and Connection Fee Study

City of Port Hueneme, CA — Water, Wastewater, & Solid Waste Rate Study

City of Claremont, CA — Water and Sewer Rate Study

Monterey One Water, CA —Wastewater Utility Rate Study and Cost Allocation Plan: Ms. Bou is serving as a senior consultant for the Agency's ongoing sewer rate study. She is the primary consultant responsible for the preparation of the rate study report and has been involved in all details and aspects of the study, working closely with Mr. Fisher and Mr. Cronan.

City of Hemet, CA — Water and Wastewater Utility Rate Study: Ms. Bou served on the project team for the City of Hemet engagement, working closely with Mr. Fisher and Mr. Cronan on financial model development and rate scenario analysis. She supported the collection and validation of financial data, budgets, and capital plans and assisted in incorporating this information into the rate and financial model. She also assisted in the preparation of the rate report, Prop 218 notice and several presentations.

City of Rio Vista, CA — Water & Wastewater Rate Study and Capacity Fee Study: The City was in need of a comprehensive review and update current water and wastewater rates along with updated capacity fees; the City had not undergone a rate study in an extended period time. The City manages two wastewater treatment facilities, with plans underway to consolidate operations into the Northwest Sewer System. This consolidation initiative included financing necessary capital expenditures to decommission the Beach Plant and enhance capacity at the Northwest Plant. Ms. Bou, as the lead consultant, directed two distinct wastewater rate studies covering a 5-year period, designed to eventually merge into a unified plan by Year 6. Her role involved assessing operational and maintenance cost reductions achievable through plant consolidation. Collaborating closely with City personnel, she ensured the development of a sound financial plan encompassing O&M expenses, capital project outlays, and debt service obligations, accurately reflecting the implications of plant consolidation on the City's fiscal health.

A. Bou
Resume Continued

City of American Canyon, CA — Utility Rate & Impact Fees Study: The City of American Canyon engaged Ms. Bou to conduct a comprehensive rate study for its water, recycled water, and sewer enterprise funds. The purpose of the study was to meet revenue requirements, review current rate structures based on recent consumption data, and fund capital improvements while addressing changes in costs. Ms. Bou developed financial plans to support approximately $70.5 million in O&M expenses and $28.6 million in capital improvements. She designed new recycled water rates that cover operating costs while remaining competitive with other irrigation water sources. Additionally, drought rates were created to ensure the City's financial viability in the event of decreased consumption due to increased conservation efforts or severe drought conditions.

City of Turlock, CA — Sewer Rate Study: The City had not conducted a rate or rate update study in many years. Consequently, the City's primary objectives included a comprehensive review of existing sewer rates, the development of final recommendations, and the clear communication of results to customers. Ms. Bou worked collaboratively with City staff to evaluate the capital improvement program, estimated at $131.8 million over the next five years, for the City's Wastewater Treatment Facility and Sanitary Sewer Service Collection System. She recommended viable financing options to support the planned capital projects including the issuance of new revenue bonds. Additionally, a review of the current sewer rates and rate design structure was conducted.

Tiffany Sturms, MSA

Project Analyst

Ms. Sturms is a Senior Project Analyst within Willdan's Financial Consulting Services group. Her focal purpose is to assist principal consultants with utility rate and user fee studies, assessments/non-ad valorem studies, and other financial analyses. She is proficient with Microsoft Excel and has implemented vigorous analyses for a diversity of entities, including cities, counties, public service districts, and investor-owned utilities.

Ms. Sturms has conducted an eclectic assortment of financial engagements, including credit default swaps (COVID-19 Pandemic, Sovereign Debt Crisis), mutual funds and hedge fund performance and style evaluations, investment strategies, leveraged portfolios, efficient frontier of optimal portfolios, constrained optimization, strategic analysis and recommendations, commercial banks ratio, liabilities/deposits, lending portfolio, non-interest income/expense, risk management, financing, and valuation analyses. Outlined below is Ms. Sturms' relevant and recent project experience.

Education

Master of Science Accounting, Indiana Wesleyan University

Bachelor of Science, Accounting, Indiana Wesleyan University

Areas of Expertise

Utility Rate Studies

Revenue Bonds

Capital & Financial Planning

Impact/Connection Fee Studies

Utility Valuations

Assessment Programs

Utility Optimization Services

7 Years' Experience

Select Relevant Experience

Utility Rate Study Experience

- City of Livingston, CA — Water, Wastewater, & Solid Waste Rate Study
- City of San Jacinto, CA — Water and Wastewater Study
- Monterey One Water, CA —Wastewater Utility Rate Study and Cost Allocation Plan
- City of Calexico, CA — Water & Sewer Rate Study
- City of Vacaville, CA — Water & Sewer Utility Rate Study
- City of Hercules, CA — Sewer Rate Study
- City of Hemet, CA — Water & Sewer Rate Study
- City of Buellton, CA — Water & Sewer Rate Study
- City of Guadalupe, CA — Water & Sewer Rate Study
- Bay Laurel Center CDD, FL — Water, Sewer & Reclaimed Rate Study and Misc. Charges
- City of Oviedo, FL — Water, Sewer & Reclaimed Rate Study
- City of Orange Beach, FL — Water & Sewer Rate Study
- City of Ormond Beach, FL — Water & Sewer Rate Study
- Bella Collina CDD, FL — Water & Sewer Rate Study
- City of South Daytona, FL — Water, Sewer & Stormwater Rate Study
- City of DeLand, FL — Stormwater Rate Study
- Starr-Iva Water & Sewer District, SC — Water Rate Study
- City of West Columbia, SC — Water & Sewer Rate Study
- City of Aiken, SC — Water, Sewer & Stormwater Rate Study
- City of Fort Mills, SC — Water & Sewer Rate Study
- City of Brentwood, TN — Water & Sewer Rate Study
- Town of Vienna, VA — Water & Sewer Rate Study

Impact/Capacity Fee Studies

- Town of Lake Hamilton, FL — Police, Transportation, Parks, and Municipal Facilities
- City of Gastonia, NC — Water and Sewer System Development
- City of Woodruff, SC — Sewer System Development

Assessments

- City of North Port, FL — Roads and Drainage
- City of Oviedo, FL — Streetlights
- City of Oviedo, FL — Fire

Full Project Descriptions

Provided below are project descriptions, which include client contact information, demonstrating Willdan's ability to provide multi-services to a single client. We are proud of our reputation for customer service and encourage you to contact our clients regarding our commitment to excellence.

City of Hemet, CA
Water and Wastewater Utility Rate Study

Willdan worked with the City of Hemet over an extended period to complete a comprehensive water and wastewater study. Entering the study, the City wished to evaluate rate structure options, given recent legal challenges in the Prop 218 arena, and incorporate drought water rates as part of their program. We gathered and validated financial data, budgets, and capital plans, and incorporated it all into the rate and financial model. We worked extensively with the City to evaluate and analyze customer billing data, resulting in several clean-up changes on the City's end to address data gaps. We developed the comprehensive model and created alternative funding and rate scenarios for evaluation and discussion. Once the financial plan and recommended revenue adjustments were finalized, we presented preliminary results to the City's Planning Commission/Infrastructure Committee for feedback. Finally, we completed a cost-of-service analysis and development of updated water and sewer rates.

Rate Structure Details:

Approved water rates consist of 1) a monthly fixed charge for all customers that varies based on meter size and is the minimum amount a customer pays regardless of the amount of water used; and 2) a uniform volumetric rate per 100 cubic feet for customers based upon monthly metered use. A series of Drought Surcharge rates was also developed, to be implemented in the event of a drought declaration, when water sales would be reduced. Approved sewer rates consist of 1) monthly fixed charges for all customers per sewage and stormwater unit, regardless of usage.

Final recommendations were presented to the City Council, Willdan prepared and distributed the Prop 218 Public Hearing notice, presented final results to the City Council, and rates were successfully adopted in January 2026.

Contact:	Noah Rau, P.E., Public Works Director/City Engineer Tel #: (951) 765-2360 | Email: NRau@hemetca.gov
Budget:	$46,770 – Original Budget | $52,410 – Amended Budget to add drought surcharge that wasn't part of original scope

City of Farmersville, CA
Water and Wastewater Utility Rate Study

Willdan completed a comprehensive water and wastewater study for the City of Farmersville. Our team worked with City Staff to develop an interactive model with financial plans and projections for both utilities and prepare and present scenarios to evaluate budget and financial scenarios. We also worked with the City's financial advisor and legal counsel to implement a rate stabilization reserve to allow more flexibility in the financial plan and mitigate rate increases. We developed capital funding scenarios and rate structure options and presented them to staff for discussion and evaluation. Once the final financial plan was approved, we completed the cost-of-service analysis and calculated new rates, prepared the rate study report and Prop 218 notice, presented the results to the City Council, and coordinated the mailing of the notice.

Rate Structure Details:

Adopted water rates consist of 1) a monthly fixed charge for all customers, that varies based on meter size, and which designates the minimum amount a customer will pay regardless of the amount of water used, and 2) a volumetric rate per 100 cubic feet, based upon the amount of monthly metered water use. Residential customers pay *incremental* volumetric rates, where the rate per 100 cubic feet increases for all water use once they exceed their base usage block threshold of 1,500 cubic feet. All other customers pay a uniform volumetric rate per 100 cubic feet for all water use.

Sewer rates consist of 1) separate monthly fixed charges for Single-Family, Multi-Family and Non-Residential customers, regardless of their usage, and 2) Volumetric rates *for Non-Residential customers only*, per 100 cubic feet, that vary by sewer discharge strength. Single and Multi-Family customers pay *only* a flat monthly fee, and no volumetric rate per 100 cubic feet.

Willdan gathered and validated financial data for the project, including budget, fund balances, capital plans, historical financial results, debt service schedules and debt covenants, and financial policy documents. The study also included the cost-of-service analysis, as required under Prop 218, and changes were made to the rate structure as a result.

Contact:	Steve Huntley, Director of Finance and Administration *(Now with Chandler Asset Management)* Tel #: (800) 317-4747 | Email: SHuntley@chandlerasset.com
Budget:	$46,590 - no change to original budget

City of Buellton, CA
Water, Sewer Rate and Connection Fee Study

Willdan completed a comprehensive water and wastewater rate study and connection fee study for the City of Buellton. We completed all technical work and analysis, prepared required reports, presentations, and documents and completed the mailing of the Prop 218 public hearing notices. We conducted study sessions with City Council members, attended a public workshop, as well as two City Council meetings, including the public hearing. The scope of services included development of the financial plan, model, and reports, including the adjustment of the existing rate structure to ensure better compliance with Prop 218. We created several alternative scenarios for evaluation by City staff and the Council and conducted 2-by-2 meetings with Council members to ensure their understanding of the process and the results.

Rate Structure Details:

Approved water rates consist of 1) a monthly fixed charge for all customers, except sprinkler-only accounts that have specific charges, that varies based on meter size and is the minimum amount a customer will pay regardless of the amount of water used; and 2) a uniform volumetric rate per 100 cubic feet for customers based upon monthly metered use. Water from hydrants has a separate rate.

Sewer rates consist of 1) monthly fixed charges for residential and non-residential customers, regardless of usage, based on their relative demand characteristics and 2) Volumetric rates per 100 cubic feet for non-residential customers only, that vary by sewer discharge strength for various non-residential customer categories. Single-family customers pay a flat monthly fixed charge regardless of usage. Multi-family customers pay a flat fixed charge per unit.

Because of the time that had passed since their prior rate increases, the City needed significant rate increases to keep pace with rising costs, so we worked collaboratively with them to evaluate options for the financial plan to address the needs of the utilities, while balancing the impact on ratepayers.

Contact:	Rose Hess, Public Works Director Tel #: (805) 686-0137 | Email: RoseH@cityofbuellton.com
Budget:	$55,950 – no change to original budget

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FINANCIAL SERVICES

27368 Via Industria, Suite 200
Temecula, CA 92590
800.755.6864 | Fax: 888.326.6864
www.willdan.com

Olivehurst Public Utilities District

Proposal

Water and Wastewater Rate Study

WILLDAN
FINANCIAL SERVICES

May 22, 2026

Mr. Swarnjit Boyal
Director of Public Works
Olivehurst Public Utility District
1970 9th Ave
Olivehurst, CA 95961

Re: Cost Proposal to Conduct a Water and Wastewater Rate Study for the Olivehurst Public Utility District

Dear Mr. Boyal:

Willdan Financial Services ("Willdan") is pleased to present the following fee proposal to the Olivehurst Public Utility District ("District") for a Water and Wastewater Utility Rate Study.

This submission reflects our understanding of the District's Request for Proposal (RFP).

Willdan is excited about this opportunity to serve the Olivehurst Public Utility District. To discuss any aspect of our technical and/or cost proposal, please contact me directly at (951) 587-3528 or via e-mail at CFisher@Willdan.com.

Sincerely,
WILLDAN FINANCIAL SERVICES

Chris Fisher
Vice President / Director

Cost Proposal

Water and Wastewater Rate Study

Based on our work plan provided in the scope of services, we propose a total ***fixed labor fee of $43,900.*** The table below provides a breakdown of these fees by task and project team member.

Olivehurst Public Utility District
Water and Wastewater Rate Study
Fee Proposal

	C. Fisher PIC/PM	M. Cronan Lead Consultant	A. Bou Consultant	T. Sturms Project	Total Hours	Total Cost
	$310	$250	$210	$150		
Scope of Work						
Project Initiation						
Task 1.1 - Data Collection, Review & Verification	-	2.0	3.0	6.0	11.0	$ 2,030
Task 1.2 - Kick-off Meeting & Planning Discussion	1.0	1.0	1.0	-	3.0	770
Water & Wastewater Rate Study						
Task 2.1 - Financial Plan, Requirements & Determinants	8.0	12.0	30.0	32.0	82.0	16,580
Task 2.2 - Capital Plan Analysis	2.0	4.0	4.0	3.0	13.0	2,910
Task 2.3 - Cost-of-Service Allocations	2.0	4.0	4.0	3.0	13.0	2,910
Task 2.4 - Rate Analysis & Design	4.0	6.0	6.0	2.0	18.0	4,300
Preparation of Reports and Proposition 218 Notices						
Task 3.1 - Reports, Model & Deliverables	2.0	3.0	4.0	8.0	17.0	3,410
Task 3.2 - Proposition 218 Notice Preparation and Mailing	3.0	2.0	6.0	4.0	15.0	3,290
Communicating Results - Presentations & Meetings						
Task 4.1 - Meetings & Presentations	12.0	8.0	8.0	2.0	30.0	7,700
Total Labor Cost Proposal	**34.0**	**42.0**	**66.0**	**60.0**	**202.0**	**$ 43,900**

Proposition 218 Fees

IMPORTANT NOTE - The fixed fee ***does not*** include direct costs associated with the printing, processing, postage, and mailing of Proposition 218 notices. We will bill the District for these at our cost, plus 15 percent (15%), based on actual quotes provided by our mailing house at the time the mailing materials are developed and delivered to them. These costs are estimated at $1.25 per mailed piece.

Notes

- If the District wishes for Willdan to attend additional in-person meetings, the fee is $1,850 per meeting.
- The District will be invoiced on a monthly percentage completion basis.
- Invoices will include a description of services, as well as a summary of costs to date by task.
- Willdan will rely on the validity and accuracy of the District's data and documentation to complete our analysis. Willdan will rely on the data as being accurate without performing an independent verification of accuracy, and that we will not be responsible for any errors that result from inaccurate data provided by the client or a third party.
- The District shall reimburse Willdan for all costs and expenses incurred in responding to any legal or administrative processes initiated by any agency or third party in connection with the District or the Project. Reimbursement shall be at Willdan 's rates in effect at the time of such response.

Hourly Rates

We will perform additional tasks, outside our scope of services, as requested and authorized by the District for an additional fee; services will be billed at our then-current hourly rates. Our current hourly rates are listed below.

Willdan Financial Services Hourly Rate Schedule		
Position	**Team Member**	**Hourly Rate**
Vice President / Director	Chris Fisher	$310
Managing Principal		$300
Principal Consultant		$270
Senior Project Manager	Michael Cronan	$250
Project Manager	Alice Bou	$210
Senior Project Analyst	Tiffany Sturms	$150
Senior Analyst		$135
Analyst II		$120

WILLDAN
FINANCIAL SERVICES

27368 Via Industria, Suite 200
Temecula, CA 92590
800.755.6864 | Fax: 888.326.6864
www.willdan.com

Olivehurst Public Utility District



Cost Proposal for a Water & Sewer Rate Study

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

2625 Alcatraz Ave, #602
Berkeley, CA 94705
Tel 510 653 3399
www.bartlewells.com

May 18, 2026

Swarnjit Boyal, Public Works Manager
Olivehurst Public Utility District
1970 9th Avenue,
Olivehurst, CA 95961

Re: Cost Proposal for a Water and Sewer Rate Study

Bartle Wells Associates is pleased to submit this Cost Proposal for a Water and Sewer Rate Study to Olivehurst Public Utility District. BWA is open to working with the District to finalize a scope of services and corresponding budget that meets the District's objectives. Please contact us if you have any questions about this cost proposal or would like any additional information.

Sincerely,

Michael DeGroot
Principal Consultant

Alex Handlers, MPA, CIPMA
Principal Consultant

Proposed Project Budget

This section presents a proposed budget. *A final budget can be developed with input from the District to ensure the project cost is in line with District objectives and expectations.*

WATER & SEWER RATE STUDIES PROJECT TASK	Michael DeGroot *Principal* $290/hr	Alex Handlers *Principal* $290/hr	Zoe Feil *Analyst* $135/hr	Total Hours	Project Budget
PHASE 1. PROJECT INITIATION & DATA COLLECTION	**5**	**2**	**8**	**15**	**$3,110**
1. Project Team Orientation / Kickoff Meeting					
2. Investigation & Data Collection					
PHASE 2. LONG-RANGE FINANCIAL PLANS	**15**	**5**	**20**	**40**	**$8,500**
1. Develop Forecasts & Projections					
2. Evaluate Financing Alternatives for Capital Improvements					
3. Establish Fund Reserve Targets					
4. Develop 10-Year Financial Projections & Evaluate Scenarios					
5. Evaluate Rate Increase Options					
PHASE 3. WATER & SEWER RATE RECOMMENDATIONS	**15**	**5**	**20**	**40**	**$8,500**
1. Identify Rate Structure Alternatives					
2. Conduct Survey of Regional Utility Rates					
3. Analyze Consumption & Utility Billing Data					
4. Cost of Service Rate Derivation					
5. Develop Preliminary & Final Recommendations					
PHASE 4. MEETINGS, REPORTS & IMPLEMENTATION	**15**	**5**	**20**	**40**	**$8,500**
1. Project Team/Progress Meetings					
2. District Board Meetings					
3. Prepare Draft & Final Reports					
4. Proposition 218 Notice and Rate Hearing					
TOTAL ESTIMATED HOURS	**50**	**17**	**68**	**135**	**$28,610**
ESTIMATED EXPENSES (Travel, Copies, Miscellaneous)					**$1,200**
TOTAL PROJECT BUDGET					**$29,810**

Note: If applicable, costs for the actual printing & mailing of the Proposition 218 Notices will be billed based on actual cost without markup. ***For the prior 2022 rate study, these costs totaled approximately $6,050 including $3,500 for printing and approximately $2,550 for postage.*** Printing and mailing costs can vary based on the details of the final notice (e.g. number of notices mailed, page length and layout, color vs. black & white printing, method of addressing and mailing, etc.)

Availability & Fees

1. Bartle Wells Associates is prepared to begin work upon authorization to proceed.

2. During the project development period, Bartle Wells Associates will be available at all reasonable times and on reasonable notice for meetings and for consultation with staff, attorneys, consulting engineers, and others as necessary.

3. Bartle Wells Associates will perform all work related to the assignment. Michael DeGroot will serve as project manager on this assignment. Alex Handlers will serve as additional principal consultant. Zoe Feil will serve as a financial analyst on this project. Michael will serve as the lead contact person for BWA and will be involved with the project on a day-to-day basis. This project team may be assisted by other BWA consultants as needed.

4. The fees for services outlined in this proposal will not exceed $29,810. If applicable, costs related to a third-party vendor related to printing and mailing of the Proposition 218 Notices will be billed as additional expenses at cost without markup. The proposed fee is based on the following assumptions:

    a. All necessary information will be provided by the District in a timely manner.

    b. Development of a draft, final draft, and final versions of tables, presentations, and reports. Time and expenses involved in revising tables and assumptions may constitute additional services if not achievable within the budget.

    c. Three meetings including two virtual meetings for presentation of findings and recommendations to the District Board and/or Board subcommittee as well as participation at the public rate hearing. Additional meetings or presentations may constitute additional services if not achievable within the budget.

5. Progress payments and direct expenses are payable monthly on a time and materials basis as the work proceeds as provided in our Billing Rate Schedule 2026, which will remain in effect through the duration of this assignment.

6. Bartle Wells Associates will maintain in force, during the full term of the assignment, insurance as provided in the Certificate of Insurance attached.

7. For the services in this proposal, Bartle Wells Associates is serving as a utility rate and finance consultant, but is not serving in the capacity as a Municipal Advisor regarding the issuance of debt. Any regulated Municipal Advisory activity would need to be authorized via a separate agreement.

8. Bartle Wells Associates will provide independent, expert financial advice based on our industry experience but is not a law firm and defers to our clients' legal counsel for legal advice.

9. If the project is terminated for any reason, we are to be reimbursed for professional services and direct expenses incurred up to the time we receive notification of such termination.

10. This proposal may be withdrawn or amended if not accepted within 90 days of its date.

11. We will not require a formal contract of employment and will consider a letter or e-mail from an appropriate official as sufficient authority to proceed.

Billing Rate Schedule

BARTLE WELLS ASSOCIATES

BILLING RATE SCHEDULE 2026

Rates Effective 1/1/2026

Professional Services

Financial Analyst I	$135 per hour
Financial Analyst II	$155 per hour
Associate Consultant	$175 per hour
Consultant	$200 per hour
Senior Consultant	$225 per hour
Project Manager/Technical Expert	$260 per hour
Principal Consultant	$290 per hour

The hourly rates for professional services include all overhead and indirect expenses. Bartle Wells Associates does not charge for administrative support services. Expert witness, legal testimony, or other special limited assignments will be billed at one and one-half times the consultant's hourly rate.

The above rates will remain in effect through the duration of this project.

Direct Expenses

Reimbursable or direct expenses incurred on behalf of the agency will be billed at cost. These reimbursable costs include, but are not limited to:

- Travel, meals, lodging
- Printing and photocopying
- Special statistical analysis
- Outside computer services
- Bond ratings
- Automobile mileage
- Messenger services and mailing costs
- Graphic design and photography
- Special legal services
- Legal advertisements

Insurance

Bartle Wells Associates maintains insurance in the amounts and coverage as provided in the schedule of insurance included in our technical proposal. Additional or special insurance, licensing, or permit requirements beyond what is shown on the schedule of insurance are billed in addition to the contract amount.

Payment

Fees are typically billed monthly or bi-monthly for the preceding work period and are due and payable within 30 days of the date of the invoice. A late charge of 1.0 percent per month may be applied to balances unpaid after 60 days.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 05/30/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Mason-McBride, Inc./Hudson & Muma, Inc. 3155 West Big Beaver Road Suite 125 Troy MI 48084	CONTACT NAME: David P Muma PHONE (A/C, No, Ext): (248) 822-7170 FAX (A/C, No): (248) 822-7150 E-MAIL ADDRESS: dmuma@mason-mcbride.com
INSURED Bartle Wells Associates 2625 Alcatraz Ave #602 Berkeley CA 94705 (510) 653-3399	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: — 22357 INSURER B: Sentinel Ins. Co. LTD (Hartford) INSURER C: Hartford Accident & Indemnity Co — 11000 INSURER D: Axis Surplus Ins. Co. INSURER E: INSURER F:

COVERAGES DM **CERTIFICATE NUMBER:** Cert ID 10910 (1) **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:	Y	Y	35SBABB5UCE	06/01/2025	06/01/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Empl Benefits Liab	$ 2,000,000 $ 1,000,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $ 4,000,000
B	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY X SCHEDULED AUTOS X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY	Y	Y	35UECVU2842	06/01/2025	06/01/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $	Y	Y	35SBABB5UCE	06/01/2025	06/01/2026	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000 $ 10,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y	35WECFG7858	06/01/2025	06/01/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional Liability (Claims Made)			ENN610916 (Retro Date 6/1/2012)	06/01/2025	06/01/2026	Errors & Omissions Occurrence Errors & Omissions Aggregate	$ 2,000,000 $ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Those usual to the Insured's Operations. Certificate Holder and its officials, officers, employees, agents and volunteers, as applicable, shall be named as Additional Insured with respects to Business Liability, (form SS00080405 on blanket basis or form SS41700611 and/or IH12001185 if specific required) and Automobile liability (form CA20481013) as listed on form CA20481013 or IH12011185. Umbrella Coverage is Following Form. Waiver of Subrogation applies to General Liability(form SS00080405), Work Comp (Form WC 990303B), and Commerical Auto coverage (form HA99160312 on Blanket Basis or on form CA04441013 if specific requested). Coverage written on a Primary and Non-Contributory basis. Thirty (30)day notice of cancellation applies to GL and Auto and Professional liability, except for non-payment of premium. The Am Best Rating of the insurance

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

David P. Muma

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Insurance documentation can be provided as needed

Olivehurst Public Utility District



Proposal for a
Water & Sewer Rate Study

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

2625 Alcatraz Avenue #602
Berkeley, CA 94705
Tel 510 653 3399
www.bartlewells.com

May 18th, 2026

Swarnjit Boyal, Public Works Manager
Olivehurst Public Utility District
1970 9th Avenue
Olivehurst, CA 95961

Subject: Proposal for a Water and Sewer Rate Study

Bartle Wells Associates (BWA) is pleased to submit this proposal to assist the Olivehurst Public Utility District with a comprehensive Water and Sewer Rate Study. BWA specializes in providing independent financial advisory and utility rate consulting services to California water and wastewater utilities. Our firm was founded in 1964 and has served over 600 public agencies throughout California and western United States.

We are very familiar with the District's water and sewer rates and finances due to our prior experience assisting the District with rate studies for the past 20 years. Our rate studies have resulted in a gradual phase in of water and sewer rate adjustments designed to support the District's operating and capital funding needs as well as some minor modifications to the water rate structure to improve rate equity. The rate recommendations have supported the District's financial stability and helped the District maintain rates that are low compared to other regional and statewide agencies.

Key objectives for the new Water and Sewer Rate Study, including:

- **Develop Long-Term Water & Sewer Financial Plans:** The financial plans will serve as financial roadmaps for funding the District's operating and capital improvement programs while maintaining prudent reserve levels. We typically recommend agencies phase in rate increases over time, to the extent possible, to minimize the annual impact on ratepayers. After developing base case projections, BWA can work with the District to evaluate alternative financial and capital funding scenarios as needed.

- **Evaluate Water & Sewer Rate Alternatives:** Evaluate rate increase options and potential modifications to the District's water and sewer rate structures. Water rate structure options may include development of fixed charges based on meter size, evaluation of separate rates for the District two service areas, and potential phase out of unbilled water usage included with fixed charges. Sewer rate options may include an update to the District's formula for assigning EDU's to non-residential customers as well as potential establishment of wastewater strength-based rate classes. Final rate recommendations will be designed to a) fund each utility's costs of providing service, b) reflect District objectives, c) be fair and equitable to all customers, and d) comply with the substantive requirements of Proposition 218.

- **Incorporate District Input & Assist with Proposition 218 Process:** We will work closely with OPUD throughout the project to evaluate alternatives, gain input, and build consensus. BWA will also assist with implementation of proposed rates, including drafting the required Proposition 218 Notice, presenting recommendations to the Board and the public, and participating in the Public Hearing.

Our goal will be to develop rate recommendations that support the District's funding needs, evaluate key alternatives and their impacts, and build consensus for final rate recommendations. We have enjoyed working with OPUD on our prior assignments and appreciate the opportunity to assist the District with development of updated water and sewer rate studies. Please contact us if you have any questions or need any additional information.

Sincerely,

BARTLE WELLS ASSOCIATES

Michael DeGroot
Principal Consultant

Alex Handlers, MPA, CIPMA
Principal Consultant

Table of Contents

Consultant Identification and Qualifications

BARTLE WELLS ASSOCIATES

Leaders in Utility Rates and Finance Since 1964

Firm Information:
Bartle Wells Associates
2625 Alcatraz Avenue #602,
Berkely, CA 94705
Tel 510 653 3399

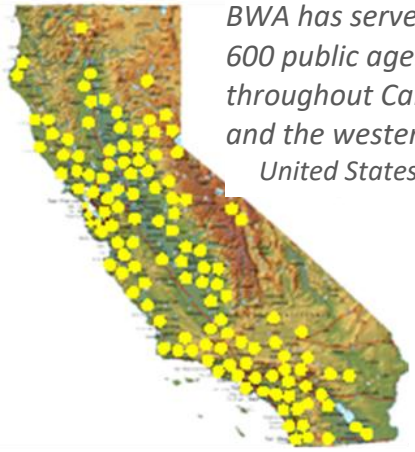
Legally Responsible Principal
Michael DeGroot
Principal & Vice President
Tel: 510.653.3399 (x114)
Email: michael@bartlewells.com

Bartle Wells Associates (BWA) is an independent financial advisory firm with expertise in the areas of water and wastewater rates and finance. BWA was established in 1964 and has over 60 years of experience advising cities, special districts, and other agencies on the complexities and challenges in public finance. We have advised over 600 public agency clients throughout California and the western United States. BWA has prior successful experience assisting OPUD with water and sewer rates over the past 20 years with the most recent Water and Sewer Rate Study completed in 2022. Rate recommendations have included pro-active, gradual rate increases to support the District's funding needs while maintaining the financial health of the water and sewer utilities.

We have a diverse set of abilities and experience to evaluate all types of financial issues faced by local governments and to recommend the best and most practical solutions. Bartle Wells Associates has a stable, well-qualified professional team. Our education and backgrounds include finance, civil engineering, business, public administration, public policy, and economics.

BWA specializes in three professional services: utility rate and fee studies, financial plans, and project financing. We are the only independent financial advisors providing *all three* of these interrelated services to public agencies.

RATE AND FEE STUDIES Our ***rate studies*** employ a cost-of-service approach and are designed to maintain the long-term financial health of a utility enterprise while being fair to all customers. We develop practical recommendations that are easy to implement and often phase in rate adjustments over time to minimize the impact on ratepayers. We also have extensive experience developing impact fees that equitably recover the costs of infrastructure required to serve new development. BWA has completed hundreds of water and wastewater rate and fee studies. We have helped communities implement a wide range of water and sewer rate structures and are knowledgeable about the legal requirements governing rates and impact fees including Proposition 218 and Government Code 66000. We develop clear, effective presentations and have represented public agencies at hundreds of public hearings to build consensus for our recommendations.



BWA has served over 600 public agencies throughout California and the western United States

FINANCIAL PLANS

Our ***financial plans*** provide agencies with a flexible roadmap for funding long-term operating and capital needs. We evaluate the wide range of financing options available, develop a plan that recommends the best financing approach, and clearly identify the sources of revenue for funding projects and repaying any debt. We also help agencies develop prudent financial policies, such as fund reserve targets, to support sound financial management. BWA has developed over 2,000 water and wastewater enterprise financial plans to help public agencies fund their operating and capital programs, meet debt service requirements, and maintain long-term financial health.

PROJECT FINANCING

Our ***project financing*** experience includes over 300 bond sales and numerous bank loans, lines of credit, and various state and federal grant and loan programs. We generally recommend issuing debt via a competitive sale process to achieve the lowest cost financing possible. To date, we have helped California agencies obtain over $5 billion of financing via bonds, bank loans/private placements, lines of credit, and low-rate financing from a range of state and federal funding programs including State Revolving Fund (SRF) Loans, WIFIA, USDA, I-Bank and other programs. We work only for public agencies; we are independent financial advisors and do not buy, trade, or resell bonds. Our work is concentrated on providing independent advice that enables our clients to finance their projects on the most favorable terms—lowest interest rates, smallest issue size, and greatest flexibility.

Bartle Wells Associates is a charter member of the ***National Association of Municipal Advisors*** (NAMA), which establishes strict criteria for independent advisory firms. All of our lead consultants are *MSRB-Registered Municipal Advisors*.

NAMA
NATIONAL ASSOCIATION OF MUNICIPAL ADVISORS

Bartle Wells Associates is committed to providing value and the best advice to our clients. Our strength is *quality*—the quality of advice, service, and work we do for all our clients.

COLLABORATIVE PROJECT APPROACH

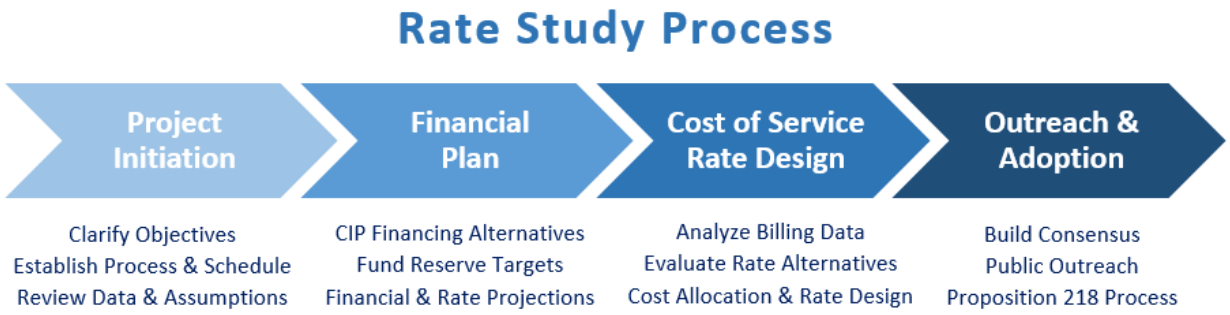
BWA uses a collaborative project approach to ensure final recommendations reflect the policy preferences and objectives of the agencies we serve. Our general approach will be to work closely with the District's project team throughout the project to clarify objectives, gain ongoing input, evaluate alternatives and their impacts, and remain flexible to resolve unanticipated issues.

BWA is available to assist the District in all phases of the study, from project initiation through final adoption and implementation. Rate and fee increases can be controversial. BWA has assisted many agencies with public outreach efforts aimed at fostering understanding and acceptance for rate and fee increases. BWA also has substantial experience working with citizen advisory groups, community groups, and other stakeholders, and has a long track record of completing projects on time and on budget. We have helped many agencies successfully adopt rate increases in challenging political environments.

Project Understanding and Approach

Project Understanding & Objectives

BWA will develop a comprehensive water and sewer rate study with the goal of helping the District implement a series of rates for upcoming years that a) fund the District's projected operating and capital programs, b) maintain financial stability, and c) are fair to all customers. BWA can work with the District to finalize a scope of services and budget that achieve the District's objectives. Our general rate study process is summarized below:



Key tasks of our study will include:

- **Develop 10-year Water & Sewer Utility Financial Plan:** Develop comprehensive 10-year financial plan for the District's water and sewer utilities. The plans will facilitate evaluation of a range of scenarios and assumptions and serve as a financial roadmap for funding projected operating, maintenance and capital programs while maintaining long-term financial stability. The financial plan will include evaluation of financing alternatives for capital projects, recommendation of fund reserve targets, and development of a strategy for funding long-term repairs, replacements, and other capital needs.
- **Develop 5-Year Water & Sewer Rate Recommendations:** Develop 5-year water and sewer rate recommendations designed to a) fund each utility's costs of providing service, b) reflect District objectives, c) be fair and equitable to all customers, and d) comply with the substantive requirements of Proposition 218 (Article 13D, Section 6 of the California Constitution).
- **Build Consensus for Final Recommendations**: BWA has a strong track record of building consensus and public acceptance for final recommendations. We have found that ratepayers are more accepting of rate increases when they both understand the need for the increases and believe they are being treated fairly. Our proposal includes ongoing online progress meetings with the District's project team as needed and up to 2 District Board Meetings including a presentation of draft and final rate recommendations and participation at the Public Hearing.
- **Assist with Rate Adoption Process:** BWA will remain available to assist the District with all phases of the rate adoption process. BWA will draft the required Proposition 218 rate notice, present a summary of recommendations at the required Public Rate Hearing, and remain available to assist with any public outreach efforts. We can also help the District coordinate the printing and mailing of Proposition 218 Notices if needed. Our goal will be to help the District successfully adopt new rates pursuant to the Proposition 218 rate increase process.

Project Approach

This section presents a draft work plan and scope of services that we believe forms a sound basis for completing a comprehensive Water and Sewer Rate Study. Bartle Wells Associates can work with the District to finalize a scope of services that meets the District's objectives. Our general project approach is to work closely with staff and other members of the project team, identify objectives, set milestones, have frequent communication, and remain flexible to resolve unanticipated issues.

Phase 1. Project Initiation & Data Collection

1. Project Team Orientation

BWA will hold a kick-off meeting with District staff and will begin data collection efforts at the start of the study, as described below. We request that financial information such as revenues and expenditures, customer billing and consumption data be provided in MS Excel format.

Kick-off Meeting - To initiate our work, we will hold a kick-off meeting with District staff and others as appropriate, to accomplish the following:

- Align BWA and District Staff on project scope, expectations and data needs.
- Identify members of the District's Staff and BWA's project team who will participate in the project.
- Determine the roles and responsibilities of project participants.
- Identify other parties that may have a significant interest in the project, such as community groups, business organizations, and large customers.
- Establish project schedule and key milestone dates.

Investigation and Data Collection - Assemble the information necessary to understand the District's water and wastewater systems, finances, customers and usage, rate and fee structures, capital improvement needs and alternatives, outstanding debt, and future funding needs. Assistance and cooperation of District staff will be needed to assemble the relevant background information. The objectives of investigation and data collection are to develop a complete understanding of the District's water and wastewater enterprise and finances, to reach an agreement on basic assumptions to be used in the study, and to identify key alternatives for evaluation.

Phase 2. Long-Range Financial Plan

1. Develop Forecasts and Projections

Based on evaluation of the data assembled and input provided by the District, prepare forecasts and projections to be used in the development of a financial model for the District's water and wastewater utility. Develop projections for the following areas (and others as appropriate). Review projections and alternatives with District staff for agreements on assumptions, interpretation of data, and completeness of approach.

- **Capital Improvements Including Long-Term Repairs & Replacements:** Based on input from District staff, identify future capital improvement program costs or alternatives to include in the financial analysis and determine a reasonable amount to include for future, ongoing capital repairs and replacements. BWA often recommends that agencies phase in funding for long-term system rehabilitation.

- **Projected Water and Wastewater Demand:** With District input, develop water and wastewater demand projections based on historical billing data and anticipated trends. Identify future water and wastewater demand scenarios for evaluation as needed.
- **Growth & New Development:** Work with the District to identify levels of growth to incorporate in the financial projections. Evaluate financial impacts under different levels of growth as needed.
- **Projected Water Supply Costs:** Review historical and projected costs of water supply. Work with the District to develop projections or a range of projections for inclusion in the water rate study.

The 10-Year Financial Plan will serve as a financial roadmap for funding future operating and capital programs while supporting long-term financial stability.

- **Cost Escalation Factors:** Review historical cost trends and work with project team to develop reasonable cost escalation factors for both operating and capital expenditures. Work with District staff to identify any anticipated changes in future staffing, benefits, and/or other operating costs.

2. Evaluate Financing Alternatives for Capital Improvements

Evaluate options for financing capital improvements projects. Our evaluation will:

- Identify annual capital improvement fund needs and alternatives identified by the District;
- Evaluate funding alternatives including pay-as-you-go cash funding as well as the potential use of debt financing when warranted
- Evaluate the alternative borrowing methods available including bonds, COPs, state and federal loan programs (including the State Revolving Fund Financing Program), bank loans and lines of credit, and other options;
- As needed, recommend the appropriate type of debt along with its term and structure and develop debt service estimates to incorporate in the financial projections.

3. Establish Prudent Minimum Fund Reserve Targets

Evaluate the adequacy of the District's current utility fund reserves. Establish prudent minimum fund reserve targets based on the District's operating and capital funding projections. Develop an implementation plan for achieving and maintaining the recommended reserve fund levels.

4. Develop 10-Year Financial Projections & Evaluate Scenarios

Develop 10-year cash flow projections showing the financial position of the water and wastewater utility over the next 10 years. The cash flows will project fund balances, revenues, expenses, and debt service coverage, and will incorporate the forecasts developed with staff input. After developing a base-case cash flow scenario, we can model alternatives for additional evaluation such as capital improvement alternatives, project financing alternatives, the impacts of various levels of water demand, etc. During this phase, BWA will work closely with the project team to evaluate financial and rate projections under alternative scenarios.

5. Evaluate Rate Increase Options

Based on the cash flow projections, determine future annual revenue requirements from rates and project the overall level of required rate increases. Evaluate rate adjustment alternatives, such as gradually phasing in required rate increases over several years. If appropriate, evaluate different levels of rate increases and their impacts on the District's ability to fund future operating and capital needs.

Phase 3. Water & Sewer Rate Recommendations

1. Identify Rate Structure Alternatives

Review the District's current water and wastewater rate structure and discuss advantages and disadvantages compared to other rate approaches. Identify potential alternatives and modifications that could help improve rate equity, address District concerns, or help achieve other District objectives. Discuss pros and cons of different rate structure options and their general impacts on different types of customers.

Water rate structure options may include development of fixed charges based on meter size, evaluation of separate rates for the District two service areas, and potential phase out of unbilled water usage included with fixed charges. Sewer rate options may include an update to the District's formula for assigning EDU's to non-residential customers as well as potential establishment of wastewater strength-based rate classes. Rate structure options can be refined as the study progresses based on input from the project team.

2. Conduct Survey of Regional Utility Rates

Review and summarize utility rates of other regionals agencies. Summarize results in tables and charts.

3. Analyze Consumption & Utility Billing Data

Evaluate up to three years of utility billing and water usage data, to determine reasonable estimates of water and wastewater use to be used as a basis for new rate alternatives. Water use can fluctuate from year to year depending on various factors such as weather and local and regional conservation efforts. Ideally, we would prefer to analyze up to three years of utility billing data in order to determine slightly conservative demand projections and evaluate water and sewer demands under various normal year and water shortage scenarios.

4. Cost of Service Rate Derivation

Develop updated rates based on a defensible cost of service methodology. A key component of this task includes allocating operating, maintenance, capital, and debt service expenses for cost recovery from appropriate rate components. Water rates will be based on a cost-based justification to support fixed and volumetric water rates. Sewer rates will be based on cost allocations to wastewater flow and strength (as measured by BOD and SS) which are then applied to the wastewater discharge characteristics of each customer class to ensure rates reflect the proportional cost of providing service to each class.

5. Develop Preliminary & Final Rate Recommendations with District Input

Based on evaluation of alternatives and the overall level of rate increases identified in the financial plan, develop draft rate recommendations for District input. The recommendations may include a multi-year phase in of both overall rate increases and proposed rate structure adjustments in order to help mitigate the annual impact on ratepayers. Revise recommendations based on input received. Final rate recommendations will be designed to:

a) fund the costs of providing service, including operating, capital, and debt service funding needs,
b) be fair and equitable to all customers,
c) reflect District objectives,
d) be easy to understand and administer, and
e) comply with the substantive requirements of Proposition 218.

Phase 4. Meetings, Reports and Rate Adoption Process

1. Project Team/Progress Meetings (Online meetings as needed)

Participate in ongoing project team meetings with the District to present findings, discuss alternatives, review draft recommendations, and gain ongoing input. BWA will participate in conference calls and online meetings as needed throughout the project.

2. District Board Meetings (3 Meetings including 2 online meetings and 1 in-person meeting)

Participate in two online meetings with the District Board or Board Subcommittee to present findings and draft recommendations and receive input. Incorporate input as warranted to ensure final recommendations reflect District preferences. BWA will remain available to attend the Proposition 218 Rate Hearing in person as described below.

3. Public Outreach Meetings (as needed)

Rate and fee adjustments can be controversial. BWA has helped many agencies with public education and outreach efforts. We understand the importance of building public acceptance for rate increases and any rate structure adjustments and can assist the District with any outreach and public education efforts as needed subject to budget limitations.

4. Prepare Draft & Final Reports

Develop a draft report summarizing study objectives, findings and recommendations. The report will provide an administrative record supporting the proposed recommendations. The report will be written for a non-technical audience and will clearly explain the rationale for recommendations and key alternatives when applicable. Submit a draft report for District review and feedback. Incorporate input into a revised report.

5. Proposition 218 Notice

Develop a draft Proposition 218 notice for District review. Incorporate revisions and develop a final notice. BWA recommends the notice go beyond the minimum legal requirements and provide clear and concise explanation of the reasons for any rate adjustments. BWA has helped many agencies adopt rates via the Proposition 218 process. We have found that ratepayers are generally more accepting of rate increases or rate structure modification when they understand the reasons underlying the adjustments. BWA also

helps agencies coordinate the printing and mailing of the Proposition 218 notices and will remain available to assist the District with these services on a time and materials basis as needed.

6. Proposition 218 Rate Hearing

Attend the Proposition 218 Public Rate Hearing and remain available to present a summary of findings and recommendations and respond to Board and public comments. BWA has extensive experience presenting financial and rate recommendations to non-technical audiences, dealing with challenging questions, and building acceptance for final recommendations.

Project Management & Budget Control

BWA understands the importance of completing the study efficiently and within the approved project budget. Michael DeGroot, the Project Manager, will oversee the project scope, schedule, staffing, and budget throughout the assignment. Internal project tracking procedures will be used to monitor labor hours, task progress, and overall budget status on a regular basis.

BWA will maintain ongoing communication with District staff regarding project status, scope changes if any, and additional requests to ensure work remains aligned with project objectives and budget expectations. Any potential out-of-scope services or schedule impacts will be identified and discussed with the District in advance prior to proceeding. Our phased project approach and regular coordination with District staff are intended to promote efficient decision-making, minimize rework, and maintain project cost control throughout the study process. BWA has a long track record completing assignments on time and on or under budget.

Related Project Experience/Client Information

Thermalito Water and Sewer District

Thermalito Water and Sewer District retained Bartle Wells Associates to develop a financial plan and cost of service study for the District's water and wastewater rates to ensure financial stability over the next five years (FY 2023/24 to FY 2027/28).

The District provides water treatment, distribution services, and wastewater collection to residents within the area of the City of Oroville north and west of the Feather River as well as within the adjacent unincorporated areas of Butte County. The Wastewater Enterprise contracts with the Sewerage Commission – Oroville Region (SCOR) to provide wastewater treatment. Treatment charges are collected by the District and passed on to SCOR.

Reference:
Chris Heindell, P.E.
410 Grand Avenue
Oroville, CA 95965
P: 530-533-0740
Email: cheindell@twsd.info

Project Budget: $49,950
Final Study Cost: $49,360

City of Angels Camp

The City of Angels Camp provides water and wastewater services to a population of approximately 3,800 residents. The City retained Bartle Wells Associates in 2023/24 to develop a financial plan and cost of service study for the City's water and wastewater enterprise funds to ensure their financial stability over the next five-year period.

The proposed rates outlined passthrough fees for the City's share of costs under its Joint Powers Agreement (JPA) with the Utica Water and Power Authority (UWPA) under an average water year (water year 2.5). In early 2024, the UWPA developed a financial model for their projected revenues and expenses over the next five and ten years. The purpose of this analysis was to develop sound budget projections that could be provided to the JPA member agencies to use as a planning tool for future contributions. A total of six funding scenarios were developed. All six scenarios assumed Water Year 2.5, which is based on the average water year UWPA has experienced over the past 10 years. Should costs come in higher than projected, such as if the UWPA declare a water year 3, 4, 5, or 6, the City has the option to automatically pass through the additional cost through water rates.

Reference:
Michelle Gonzalez, Finance Director
Angels Camp, CA, 95222
P: 209-736-2181 ext 104
michellegonzalez@angelscamp.gov

Project Budget: $59,925
Final Study Cost: $59,925

City of Placerville

The City of Placerville provides water and wastewater services to approximately 10,700 residents. Bartle Wells Associates has assisted the City with water and wastewater financial planning and rate studies since 2009. Most recently, the City retained BWA to develop a long-term financial plan and 5-year rate recommendations for the water and wastewater enterprises effective FY2026/27 to ensure revenues remained sufficient to support ongoing operating, capital, and debt service needs.

The previous comprehensive rate study was completed in February 2018, and the City last implemented water and wastewater rate increases in June 2022. Since that time, the City has experienced significant cost escalation, including increases in wholesale water costs, labor and benefits, materials, energy, insurance, regulatory compliance obligations, and capital improvement needs. Consumer Price Index (CPI) growth alone increased approximately 10% between June 2022 and February 2026.

In addition, the City has continued advancing major infrastructure and operational initiatives, including the near completion of the Water Reclamation Facility photovoltaic solar project, which is expected to provide long-term environmental and operating cost benefits. Given these evolving operational conditions, infrastructure investment needs, and debt coverage requirements, BWA worked closely with the City to develop and implement updated water and wastewater rates designed to maintain the long-term financial stability of the utilities while remaining fair, equitable and compliant with Proposition 218.

Reference:
Natalie Tornincasa, Interim Director of Finance
3101 Center St,
Placerville, CA 95667
P: 530-642-5556
Email: ntornincasa@cityofplacerville.org

Project Budget: $29,000
Final Study Cost: $28,784

Bartle Wells Associates has conducted over 2,000 utility rate studies.
Numerous additional references are available upon request.

Staff Experience & Project Organization

Project Team

BWA uses a ***team approach*** for most projects, typically assigning two or more consultants to each assignment, including at least one principal consultant. Our general project approach is to work closely with staff and other members of the project team, identify objectives, set milestones, have frequent communication, and remain flexible to resolve unanticipated issues. Bartle Wells Associates has a highly qualified professional team. Our educational backgrounds include finance, civil engineering, business, public administration, public policy, and economics. Bartle Wells Associates has a long track record of completing projects on time and on or under budget.

Bartle Wells Associates will perform all work related to this assignment and does not plan to use any subcontractors for this project. Our consulting staff has availability to work on this project as needed to ensure all project work and deliverables are completed on schedule.

Project Team Org Chart

Michael DeGroot, Principal/Project Manager

Michael DeGroot is a Vice President and registered Municipal Advisor with Bartle Wells Associates. He specializes in developing long-term financial plans, water and wastewater rates, and capacity fees for cities and special districts. Mr. DeGroot has over eleven years of experience working with a wide range of California public agencies. He works closely with City staff, engineers, lawyers, and other consultants to develop financial projections and rate recommendations including equitable rate structures for water and sewer enterprises.

Alex Handlers, Principal

BWA also proposes to assign Alex Handers, a principal of the firm, to this project. Alex has consulted for over 150 California water and wastewater agencies and has extensive experience developing financial plans and utility rate and fee studies for numerous California agencies. He also is experienced evaluating financing alternatives for capital improvement programs and has helped California agencies obtain over $2 billion of project funding. He is a Certified Independent Professional Municipal Advisor and Board Member of the National Association of Municipal Advisors. He has made hundreds of public presentations to City Councils, District Boards, and a range of community and customer groups to build support for final recommendations. Other BWA consultants are available to assist as needed.

Zoe Feil, Financial Analyst

Zoe Feil is a financial analyst for BWA and will provide analytical support for this assignment. She has experience working on water and wastewater rate studies and has prior experience working as a financial analyst for a non-profit startup. Zoe's recent experience includes assisting Foster City with a water and wastewater rate study, Nevada Irrigation District with a water rate study, and the City of Placerville with a water and wastewater rate study.

Proposed Project Team Hours by Task

WATER & SEWER RATE STUDIES PROJECT TASK	Michael DeGroot *Principal*	Alex Handlers *Principal*	Zoe Feil *Analyst*	Total Project Hours
PHASE 1. PROJECT INITIATION & DATA COLLECTION	5	2	8	15
PHASE 2. LONG-RANGE FINANCIAL PLAN	15	5	20	40
PHASE 3. WATER & SEWER RATE RECOMMENDATIONS	15	5	20	40
PHASE 4. MEETINGS, REPORTS & IMPLEMENTATION	15	5	20	40
TOTAL ESTIMATED HOURS	50	17	68	135

APPENDIX

RESUMES

MICHAEL DEGROOT

Project Manager & Vice President

Michael DeGroot is a principal and vice president of Bartle Wells Associates with 12 years of experience developing utility rate studies, long-term financial plans, and development impact fees for cities and special districts throughout California. He has helped many agencies implement multi-year water and sewer rate increases designed to support their operating and capital programs while complying with the legal requirements of Proposition 218. He has experience developing conservation-oriented rate structures, drought rate surcharges, and connection fees designed to recover the cost of infrastructure benefiting growth. He also is an MSRB-registered municipal advisor with experience helping agencies evaluate capital funding options and issue debt.

Education

B.S., Business Administration – U.C. Berkeley Walter A. Haas School of Business, Berkeley, CA

Representative Projects

- **City of Simi Valley:** Water and sewer rate study.
- **Casitas Municipal Water District:** Water rate study.
- **North of River Sanitary District:** Sewer rate study and capacity fees.
- **Santa Clarita Valley Water District:** Water capacity fee.
- **City of Santa Clarita:** Feasibility study of District's takeover and operation of its sewer enterprise.
- **City of Santa Barbara:** Water rate study and water and sewer capacity fees.
- **Thermalito Water and Sewer District:** Water and sewer rate study and sewer capacity fees.
- **Sewerage Commission – Oroville Region:** Sewer rate study.
- **Mariposa County:** Water and sewer financial plans for six utilities and funding plan for roads.
- **City of Patterson:** Water rate study and water, wastewater, and stormwater capacity fee studies.
- **City of Foster City:** Water and sewer rate study and analysis of alternative rate structures.
- **City of Colma:** Sewer rate study and evaluation of fixed and volumetric rate structure alternatives.
- **Fairfield-Suisun Sewer District:** Sewer rate and capacity fee study.
- **West Valley Wastewater District:** Detailed financial plan, including debt funding alternatives for significant expenditure projections related to the $2 billion wastewater facility upgrade.
- **City of Benicia:** Sewer rate analysis and drought rate alternatives.
- **Stege Sanitary District:** Sewer rate study.
- **Palmdale Water District:** Water rate study.
- **City of Fresno:** Water capacity fees.
- **Crestline Wastewater District:** Sewer rate study.
- **City of Hughson:** Water rate study and SRF loan support.
- **Grizzly Flats CSD:** Water rate study.
- **City of Pacifica:** Sewer rate and capacity fee study.
- **Root Creek Water District:** Benefit Assessment District formation support.
- **City of Placerville:** Water and wastewater rate study.
- **City of Angels Camp:** Water and wastewater rate study.
- **Castro Valley Sanitary District:** Financial plan and financial adviser for revenue bond issue.
- **Oro Loma Sanitary District:** Financial plan and financial adviser for revenue bond issue.

ALEX T. HANDLERS, MPA, CIPMA

Principal Consultant

Alex Handlers is a principal consultant of Bartle Wells Associates with expertise in the areas of utility rates and finance. He has extensive experience developing long-term financial plans, utility rates, and development impact fees for utility enterprises. Alex has helped agencies implement a wide variety of water and sewer rate and fee structures and is knowledgeable about the legal requirements governing rates and fees. He has substantial experience working with governing boards and community advisory groups to build consensus for recommendations and has helped many agencies implement rate increases in challenging political environments. He has managed projects for over 150 cities, counties, and special districts.

Alex is also an independent financial advisor who helps public agencies secure low-cost financing for capital projects. He is an MSRB-Registered Municipal Advisor and a current Board Member of the National Association of Municipal Advisors. He has expertise helping public agencies evaluate financing alternatives for capital improvement programs and has helped agencies obtain over $2 billion in financing via bonds, COPs, bank loans/private placements, lines of credit, and various state and federal funding programs.

Education

M.P.A. - University of Washington
B.A. - Lehigh University

Certifications

Board Member – National Association of Municipal Advisors
Certified Independent Public Municipal Advisor (CIPMA)
MSRB-Registered Municipal Advisor (Series 50)

Representative Projects

- **City of Benicia:** Developed comprehensive water and wastewater financial plans and rate studies leading to adoption of a 5-year phase-in of rate increases and revisions to the water and sewer rate structures designed to reflect the cost of providing service. Evaluated rate impacts under a range of capital improvement funding scenarios.
- **City of San Mateo:** Developed a sewer enterprise financial plan and rate recommendations supporting funding for a roughly $900 million wastewater capital improvement program needed to improve wet weather capacity and rebuild the City's aging wastewater treatment plant. Transitioned residential sewer rates from 100% volumetric rates (subject to a minimum charge) to a hybrid 50% fixed & 50% volumetric rate structure.
- **South San Luis Obispo County Sanitation District:** Developed 10-year financial plan and wastewater treatment rate recommendations. Recommended a multi-year phase-in of rate increases to support financial stability and construction of $37 million project to address permit requirements and improve reliability. Served as financial advisor on issuance of $27 million of wastewater revenue bonds and $4.5 million low-interest rate USDA Loan.
- **Olivehurst Public Utility District:** Developed water and sewer utility financial projections and rate studies designed to gradually increase annual funding for operations and capital improvement projects. Assisted District with periodic rate updates and rate implementation via the Proposition 218 process.
- **City of Paso Robles**: Developed a comprehensive sewer rate study. Evaluated a range of fixed and usage-based residential rate alternatives. Final recommendations included multi-year sewer rate increases and phase-in of fixed service charges to supplement the City's usage-based rates.

Alex T. Handlers, continued

- **City of San Carlos:** Developed a sewer enterprise financial plan and rate study designed to support sewer collection system capacity improvements, long-term pipeline replacements, and over $120 million for the City's share of costs for rebuilding the regional wastewater treatment plant. Evaluated residential rate alternatives. Updated the City's sewer capacity charges levied on new development. Developed solid waste rate recommendations to support future funding requirements and improve rate equity between customer classes and cart sizes.
- **San Francisco Public Utilities Commission:** Developed financial projections supporting issuance of over $2 billion of bonds used to fund a $4.3 billion upgrade to the Hetch-Hetchy regional water system and improvements to the City's wastewater system and Hetch-Hetchy power facilities.
- **City of Redwood City**: Developed water and sewer financial plans and utility rate studies supporting a) construction of a $72 million recycled water project, b) funding the City's roughly $400 million share of improvements to the regional wastewater treatment plant, c) funding major increases in wholesale water rates, and d) increasing funding for ongoing investment in the City's aging infrastructure.
- **City of North Miami Beach:** Developed water and sewer financial plans and rate studies designed to support each utility's updated capital improvement programs and a substantial increase in costs for wastewater treatment provided by Miami-Dade County.
- **South Tahoe Public Utility District:** Serves as independent financial advisor on competitive and negotiated bonds sales and 5 competitively bid private placements generating over $50 million to fund water and sewer capital improvements and refinance outstanding debt to achieve savings.
- **City of Burlingame:** Developed 10-year water and sewer enterprise financial projections and rate studies. Developed new water and sewer capacity charges levied on new development.
- **Joshua Basin Water District:** Long-term financial plan and water rate study recommending a gradual increase in water rates coupled with rate structure modifications to provide additional conservation incentive. Updated District's connection fees. Worked closely with a community advisory committee to evaluate rate options and develop final recommendations.
- **City of Tulare:** Served as financial advisor on 12 competitive and negotiated bond sales issues including over $250 million of wastewater revenue bonds, $33 million of water revenue bonds, $22 million of successor agency tax allocation bonds, $7 million of short term notes, and $33 million of lease revenue bonds. Developed water and wastewater financial plans supporting capital and debt financing.
- **City of Millbrae:** Developed water and sewer rate studies and revised the City's Clean Bay Charges levied to fund improvements designed to eliminate sanitary sewer system overflows during storms.
- **Arvin-Edison Water Storage District:** Served as financial advisor on 5 private placement bank loans generating over $70 million for capital improvements, the District's buyout of USBR water supply facilities, and various debt refinancings to achieve savings.
- **Alameda County Water District:** Comprehensive development fee study; recommended a series of modifications to existing charges to improve revenue recovery, equity and fee administration
- **City of Morro Bay:** Developed 10-year water and wastewater financial plans and rate studies supporting construction of a new $145 million Water Reclamation Facility and recycled water infrastructure. Evaluated water and sewer rate structures and recommended modifications based on a cost of service analysis. Developed emergency water shortage rates. Updated the City's water and wastewater connection fees. Served as financial advisor on issuance of $62 million of low-rate WIFIA financing and $67 million of low-rate State Revolving Fund financing.
- **City of Fresno: Developed** wastewater enterprise financial plan and Excel-based financial model that is used by City staff to update projections. Developed new water connection fees designed to recover costs of existing facilities and future supplemental water supply projects benefiting new development.

ZOE FEIL

Financial Analyst

Zoe Feil is a Financial Analyst with Bartle Wells Associates, where she supports water, wastewater, and special district rate and fee studies for public agencies throughout California and the western United States. She specializes in financial data analysis, cost-of-service modeling, utility billing data analysis, and preparation of rate study reports and materials. Since joining BWA, Ms. Feil has contributed analytical support to more than ten rate and fee studies across water, wastewater, and capacity fee assignments for cities, special districts, and water agencies.

Education

B.A., Management and Economics; Minor in Chinese – University of North Carolina at Chapel Hill

Representative Projects

- **Foster City / Estero Municipal Improvement District, CA:** Water and wastewater rate study.
- **Nevada Irrigation District, CA:** Water capacity charge study.
- **City of Benicia, CA:** Water and wastewater rate study.
- **City of Concord, CA:** Sewer rate study.
- **City of Pacifica, CA:** Sewer rate study.
- **City of Patterson, CA:** Water and wastewater rate study.
- **City of Placerville, CA:** Water and wastewater rate study.
- **City of Santa Cruz, CA:** Water rate study.
- **Castle Pines Metropolitan Water District, CO:** Water rate study.
- **Arcata Fire District, CA:** Special assessment.

Prior Experience

Prior to joining BWA, Ms. Feil developed a strong foundation in financial analysis and data-driven decision making across both the private and nonprofit sectors. At Greene Resources, she conducted financial and operational audits, prepared performance reports for senior management using advanced Excel modeling, and reviewed RFPs and contracts to ensure compliance with regulatory and procedural requirements - work that closely parallels the financial review and reporting functions central to utility rate analysis. Her experience interpreting complex financial data and translating it into clear, actionable findings aligns directly with BWA's approach to developing transparent and defensible rate recommendations for public agency clients.

Ms. Feil also worked as an Economic Data Analyst Intern at Datos, where she built and maintained large-scale financial and geospatial datasets using SQL, developing the quantitative and data management skills she now applies to utility billing analysis and cost-of-service modeling at BWA.

LT Municipal Consultants
909 Marina Village Parkway #135
Alameda, CA 94501
(510) 545-3182
LTmuniconsultants.com

COST PROPOSAL - LTMC

LT Municipal Consultants' Cost Proposal for Consulting Services for a Water and Sewer Rate Study for the Olivehurst Public Utility District is provided below. We are flexible to add or remove tasks and adjust our budget accordingly.

PROJECT BUDGET

Provided below is LT Municipal Consultants' budget based on the estimated labor hours for each task identified in the scope of services. LTMC will invoice the District monthly for time and materials up to the not-to-exceed fee shown below. Our proposal assumes all meetings and presentations will be conducted virtually and no direct expenses (such as travel or printing costs) are necessary. However, in-person meetings can be added at a cost of $1,800 per meeting which includes staff time and travel costs (all-inclusive). LTMC's scope includes an *Optional Task 7 – Proposition 218 Assistance*. The cost of Task 7 is $18,000 for printing and mailing cost for about 9,000 customers, mailing list aggregation, and LTMC staff time. Direct expenses are billed at cost, absent markup.

PROJECT TASKS	HOURS			Total	BUDGET
	Lechowicz	Mills	Aluzzi		
	Project Mgr	Financial Analyst II	Financial Analyst I		
	$250/hour	$170/hour	$130/hour		
1. Kickoff & Data Gathering	10	4	16	30	$5,260
2. Financial Plan	30	16	24	70	$13,340
3. Cost Allocation	24	12	28	64	$11,680
4. Rate Design	28	12	20	60	$11,640
5. Draft & Final Reports	22	24	28	74	$13,220
6. Meetings & Outreach	20	2	12	34	$6,900
TOTAL PROJECT	**134**	**70**	**128**	**332**	**$62,040**

BILLING RATE SCHEDULE 2026/2027

LTMC's hourly rates are $250 for principals, $170 for financial analyst II, and $130 for financial analyst I. These rates will remain in place for the duration of the project. No inflationary adjustments are proposed. No subconsultants are needed for this assignment. The professional time rate includes all overhead and indirect costs. Direct expenses incurred on behalf of the client will be billed at cost, absent markup. Direct expenses include, but are not limited to:

- Travel, meals, lodging
- Printing and report binding
- Outside computer services or software development
- Automobile mileage
- Courier services and mailing costs
- Special legal services

LTMC's hourly rate schedule is part of the quote for use in invoicing for progress payments and for any work that is requested by the District in addition to this scope of services.

COST PROPOSAL

Cost Proposal

The following table provides a breakdown of our proposed fee for this project. This table includes the estimated level of effort required for completing each task. Expenses include costs associated with travel and a $10 per hour technology charge covering computers, networks, telephones, postage, etc.

Our scope of work includes the number of in-person and/or virtual meetings shown in the table below. Should the District require additional meetings or presentations to stakeholders, these can be arranged upon request at an added cost, which will be determined based on the scope and content of the meeting and/or presentation requested.

	Web Meetings	In-person Meetings	Hours						Total Fees & Expenses
			JM	AF	JW	SS	Admin	Total	
Tasks									
Task 1: Project Initiation, Management, and Kick-Off	1		1	2	6	2	1	12	**$3,715**
Task 2: Analysis of Customer Demand Characteristics and Demand Forecasting				2	7	12		21	**$5,890**
Task 3: Financial Planning and Revenue Requirement Forecasting				2	7	12		21	**$5,890**
Task 4: Cost-of-Service Analysis			1	2	8	12		23	**$6,645**
Task 5: Rate Structure Design and Proposed Rates			1	2	8	12		23	**$6,645**
Task 6: Rate Model Development			Included in Other Tasks						**$0**
Task 7: Cost-of-Service Study Report				1	4	24	2	31	**$7,645**
Task 8: Meetings and Presentations	2			1	10	4		15	**$4,545**
Total Meetings / Hours	**3**	**0**	**3**	**12**	**50**	**78**	**3**	**146**	
Hourly Billing Rate			**$425**	**$375**	**$310**	**$230**	**$100**		
Total Professional Fees			**$1,275**	**$4,500**	**$15,500**	**$17,940**	**$300**	**$39,515**	

JM - John Mastracchio, Project Director
AF - Angie Flores, Project Manager
JW - John Wright, Assistant Project Manager
SS - Summer Simpson, Lead Consultant
Admin - Administration

Total Fees	**$39,515**
Total Expenses	**$1,460**
Total Fees & Expenses	**$40,975**

Robert D. Niehaus, Inc.

Olivehurst Public Utility District

Cost Proposal for

Water and Sewer Rates for Prop 218 Study

May 22, 2026

Submitted By:

Robert D. Niehaus, Inc.
140 East Carrillo Street
Santa Barbara, CA 93101

Authorized Representative: Jack Lyon
Title: Director of Business Development
Email: Jack@rdniehaus.com
Phone: 805.618.1356

Submitted To:

Attn: Swarnjit Boyal
Public Works Engineer
1970 9th Avenue
Olivehurst, CA 95961

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May 22, 2026

Swarnjit Boyal
Public Works Engineer
Olivehurst Public Utility District
1970 9th Avenue
Olivehurst, CA 95961

Jack Lyon, Director of Business Development
(805) 618-1356 | jack@rdniehaus.com
Robert D. Niehaus, Inc.
140 E Carrillo Street
Santa Barbara, CA 93101

Subject: Cost **Proposal for Water and Sewer Rates for Prop 218 Study**

Dear Mr. Boyal and the Olivehurst Public Utility District,

Robert D. Niehaus, Inc. (RDN) is pleased to submit this cost proposal to the Olivehurst Public Utility District (District) to conduct a Water and Sewer Rates for Prop 218 Study (Study). Enclosed is our cost proposal and our hourly rate compensation schedule.

We are excited for the opportunity to work with the District on this important project. To discuss our technical or cost proposal, which is valid for a 90-day period, please coordinate with Jack Lyon, Director of Business Development, at 805.618.1356 or jack@rdniehaus.com.

Respectfully submitted,

Robert D. Niehaus, Ph.D.
Managing Director, Principal Economist

Jack Lyon
Director of Business Development

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COST PROPOSAL

We propose completing this engagement on a time and materials basis with the hours and fees shown below, totaling $19,730, which assumes no in-person meetings. The table shows our anticipated hours, rates, and total fees. This proposal is valid for 90 days.

Olivehurst Public Utility District

Tasks	In-Person Meetings	Web Meetings	Hours PD	PM	QA/QC	C	Total	Total Fees & Expenses
1. Project Management		1	1	6	1	4	12	**$2,790**
2. Financial Plan		2	2	6	2	8	18	**$4,140**
3. Cost of Service Analysis		2	1	4	1	4	10	**$2,310**
4. Rate Design		1	2	4	1	8	15	**$3,420**
5. Reports & Models		2	1	8	2	12	23	**$5,110**
6. Public Meetings - Proposition 218 Support		2	0	4	0	4	8	**$1,760**
Total Estimated Meetings / Hours	**0**	**10**	**7**	**32**	**7**	**40**	**86**	
Hourly Billing Rates			**$310**	**$240**	**$240**	**$200**		
Total Professional Fees			**$2,170**	**$7,680**	**$1,680**	**$8,000**		

Total Fees	**$19,530**
Total Expenses	**$200**
Total Fees & Expenses	**$19,730**

PD - Project Director, Robert Niehaus
PM - Project Manager, Anthony Elowsky
QA/QC - QA/QC Consultant, Ichiko Kido
C - Consultant, Zachary Van Dinther

TANGIBL GROUP, INC.

Cost Proposal for

Water and Sewer Rates for Proposition 218 Study

Olivehurst Public Utility District

Address	201 King of Prussia Road, Suite 110, Radnor, PA 19087
Primary Contact	W. Wade Horigan, Principal | wade.horigan@tangiblinc.com | +1 (412) 716-4552
Telephone / Website	+1 610-255-2333 | tangiblinc.com
Date	May 22, 2026

Cost Proposal - Tangibl Group Inc.

Tangibl proposes to perform the services described in the accompanying technical proposal for an all-inclusive time-and-materials, not-to-exceed amount of $52,500.

Not-to-exceed total: $52,500, inclusive of professional labor and routine project expenses. No in-person travel is assumed. Two virtual Board meetings are included consistent with OPUD's RFI response.

1. Hourly Billing Rates

Personnel Category	Representative Staff	Fully Loaded Hourly Rate
Principal / Project Manager	W. Wade Horigan, CDP, CRRA	$285
Financial and Rate Lead	Remo Shestani, MBA, CRRA	$175
Technical Advisor / Corporate Support	Mark Brozina, P.E.	$285
Analyst / Model Support	Analyst / Model Support	$125

2. Task Schedule and Estimated Duration

Task	Estimated Duration
1. Project Management, Kickoff, Data Request, and Data Validation	Weeks 1-4 after NTP; kickoff within five business days.
2. Water and Sewer Financial Plan / Revenue Requirements	Weeks 5-10, following receipt of core financial and capital planning data.
3. Cost-of-Service Analysis and Allocator Workpapers	Weeks 11-14, concurrent with financial-plan review.
4. Rate Design, Scenarios, and Bill-Impact Analysis	Weeks 11-14, following OPUD staff review of revenue requirement and COS findings.
5. Proposition 218 Support and Two Virtual Board Meetings	Scheduled around OPUD Board calendar; includes one public information meeting and one final hearing / approval meeting.
6. Draft / Final Report, Model Handoff, and Staff Training	Finalized after OPUD direction on preferred rate path and adoption materials.

3. Task-Level Budget

Task	Principal Hours	Rate Lead Hours	Technical Advisor Hours	Analyst Hours	Total Hours	Budget
1. Project Management, Kickoff, Data Request, and Data Validation	8	18	0	4	30	$5,930
2. Water and Sewer Financial Plan / Revenue Requirements	15	36	0	6	57	$11,325
3. Cost-of-Service Analysis and Allocator Workpapers	14	34	0	5	53	$10,565
4. Rate Design, Scenarios, and Bill-Impact Analysis	12	32	0	4	48	$9,520
5. Proposition 218 Support and Two Virtual Board Meetings	14	26	3	0	43	$9,395
6. Draft / Final Report, Model Handoff, and Staff Training	7	14	3	3	27	$5,675
Total Estimated Hours / Budget	70	160	6	22	258	$52,410
Proposed Not-to-Exceed Contract Amount						$52,500

4. Budget Assumptions

- The proposed fee includes professional labor, routine project management, standard electronic communication, standard model/report production, and two virtual Board meetings.
- No in-person travel, lodging, per diem, postage, mail-house services, large-format printing, or third-party data purchases are included. Any such items requested by OPUD would be pre-approved in writing before being incurred.
- OPUD will provide timely access to available budgets, audited financials, trial balances, rate schedules, billing data, customer counts, usage data, debt schedules, reserve policies, capital plans, and relevant ordinances / policies.
- Tangibl will prepare draft Proposition 218 notice inputs, technical exhibits, Board materials, and customer-facing explanatory language for OPUD and legal counsel review. Tangibl does not provide legal opinions and does not replace OPUD counsel.
- The proposed rates are fully loaded consulting rates and will remain valid for services performed during calendar year 2026. Prevailing wage is not expected for this professional rate-study scope; if OPUD determines that California prevailing wage requirements apply, Tangibl will coordinate with OPUD before performing affected work.
- Additional meetings beyond the two virtual Board meetings and ordinary staff working sessions may be performed within the NTE if budget remains available, or by written authorization if additional scope is requested.

5. Invoicing

Tangibl will invoice monthly on a time-and-materials basis against the not-to-exceed budget, with invoices showing personnel, date, hours, task, and brief description of work performed. Tangibl will not exceed the approved NTE amount without OPUD's prior written authorization. Payment terms will follow the final executed professional services agreement.

TANGIBL GROUP, INC.

Proposal for

Water and Sewer Rates for Proposition 218 Study

Olivehurst Public Utility District

OPUD

Olivehurst Public Utility District

"Our mission is to provide high quality services to enhance our community's quality of life"

Address	201 King of Prussia Road, Suite 110, Radnor, PA 19087
Primary Contact	W. Wade Horigan, Principal | wade.horigan@tangiblinc.com | +1 (412) 716-4552
Telephone / Website	+1 610-255-2333 | tangiblinc.com
Date	May 22, 2026

Table of Contents

Transmittal Letter

May 22, 2026

Swarnjit Boyal
Olivehurst Public Utility District
1970 9th Avenue
Olivehurst, CA 95961

Re: Proposal for Water and Sewer Rates for Proposition 218 Study

Dear Mr. Boyal and Members of the Evaluation Committee:

Tangibl Group, Inc. ("Tangibl") is pleased to submit this proposal to support the Olivehurst Public Utility District ("OPUD" or the "District") with its Water and Sewer Rates for Proposition 218 Study. Tangibl is a utility-focused consulting and engineering firm serving public-sector and investor-owned utilities through utility financial planning, cost-of-service analysis, rate design, bill-impact modeling, regulatory support, and implementation-focused public communications.

Tangibl understands that OPUD is seeking a practical and defensible water and sewer rate study that can support Proposition 218 adoption, preserve the financial sustainability of the District utilities, and provide a clear record for Board, staff, and customer communication. This engagement requires more than a rate calculation. It requires a transparent decision framework that ties financial needs, operating and capital requirements, cost causation, customer impacts, and public process support into one coherent rate program.

Tangibl proposes a senior-led engagement that begins with source-data validation and baseline financial review; proceeds through water and sewer financial plans, revenue requirements, cost-of-service analysis, rate scenarios, bill impacts, and Proposition 218 support; and ends with a written report, Board-ready materials, and unlocked Excel-native models that OPUD staff can update and reuse. Our approach is intentionally lean, documentation-heavy, and built around direct involvement from the professionals responsible for the work.

A separate cost proposal is provided as "COST PROPOSAL - Tangibl Group Inc." consistent with the RFP instructions. Tangibl confirms that it is willing and able to perform the requested services and to enter into OPUD's professional services agreement, subject to final contract review and mutually acceptable execution.

Sincerely,

W. Wade Horigan
Principal, Tangibl Group, Inc.
wade.horigan@tangiblinc.com | +1 (412) 716-4552

1. Consultant Identification and Qualifications

1.1 Consultant Identification

Legal Name	Tangibl Group, Inc.
Entity / Headquarters	Pennsylvania corporation headquartered at 201 King of Prussia Road, Suite 110, Radnor, PA 19087.
Physical / Mailing Address	201 King of Prussia Road, Suite 110, Radnor, PA 19087.
Website / Telephone	tangiblinc.com | +1 610-255-2333
Legally Responsible Principal	W. Wade Horigan, Principal, CDP, CRRA | +1 (412) 716-4552
Primary Contact / Project Manager	W. Wade Horigan, Principal | wade.horigan@tangiblinc.com | +1 (412) 716-4552
Financial and Rate Lead	Remo Shestani, MBA, CRRA | remo.shestani@tangiblinc.com | +1 (267) 307-9742
Subconsultants	No subconsultants are proposed for the core scope. If OPUD later requests specialized services outside the proposed scope, Tangibl will identify any proposed subconsultant for OPUD approval before use.

1.2 Firm Qualifications Specific to OPUD

Tangibl Group, Inc. is a utility-focused consulting and engineering firm serving public-sector and investor-owned utilities nationwide. Our work spans utility rate consulting, financial planning, allocated cost of service, rate design, bill-impact modeling, regulatory support, utility engineering, and capital-program advisory. We deploy senior, hands-on teams and deliver audit-ready models, reproducible workpapers, and clear presentation materials that help utility leadership make decisions, explain those decisions, and update the analysis after handoff.

- Utility rate and financial planning experience across water, wastewater, electric, and gas utilities, including formal rate proceedings and municipal utility advisory work.
- Cost-of-service and rate design expertise, including functionalization, classification, allocation, revenue-to-cost ratios, bill impacts, and rate-path implementation.
- Reusable model delivery through unlocked Excel-native tools with labeled input, calculation, scenario, and output tabs rather than black-box analysis.
- Public-sector communication discipline, including board/council-ready presentations, plain-language summaries, decision logs, and customer-impact exhibits.
- Regulator-grade documentation discipline developed through formal proceedings, discovery support, testimony, and schedule-driven workpapers.

Why Tangibl is a strong fit: OPUD will receive a concise senior-led team, cost-conscious delivery, and a defensible rate record that connects financial needs, cost allocation, rate design, Proposition 218 support, and staff handoff.

1.3 Proposed Outcomes for OPUD

- A validated baseline for water and sewer utility revenues, expenses, customer counts, usage, capital needs, debt service, reserves, and current rates.
- Multi-year financial plans and revenue requirements for both utilities, with scenario-ready assumptions for capital timing, reserves, financing, customer growth, and usage trends.
- Cost-of-service analysis by utility and customer class to support equitable, proportional, and explainable rate recommendations.
- Rate scenarios, implementation plan options, and bill-impact exhibits that show the customer effect of proposed rates before OPUD selects a preferred path.

- Proposition 218 support materials for OPUD and legal counsel review, including a technical record, draft notice inputs, Board presentation materials, and customer-facing Q&A support.
- Unlocked Excel models, documentation notes, and a final report that OPUD staff can maintain for future budget and rate updates.

2. Project Understanding and Approach

2.1 Understanding of OPUD's Needs

OPUD is requesting a water and sewer rate study that can support the Proposition 218 process and provide a defensible basis for updating utility rates. The study must be concise enough to support timely Board action, but complete enough to demonstrate that proposed rates are tied to the cost of providing service, utility financial needs, and reasonable customer-class allocation principles.

Tangibl understands the RFP to require a consultant that can combine technical rate analysis with adoption support. OPUD will need a clear record showing the revenue required for water and sewer operations, capital investment, debt service, reserves, and system sustainability; how those costs are assigned to customer classes and rate components; how proposed rate changes affect representative customers; and how the preferred rate path should be communicated through the Proposition 218 notice and hearing process.

The RFI clarified that proposers should assume two virtual Board meetings: one public information meeting and one final hearing / approval meeting. Tangibl has scoped the engagement around that assumption and will also use interim working sessions with OPUD staff to reduce Board-cycle risk and avoid late-stage changes.

2.2 Project Governance, Cost Control, and Data Discipline

Tangibl will manage the work through a simple, transparent control framework designed to keep the project on schedule and within budget.

- Single point of contact: W. Wade Horigan will serve as Project Manager and primary contact, with Remo Shestani leading day-to-day financial and rate modeling.
- Consolidated data request: Tangibl will request source materials once, then use follow-up questions through a tracked Issues Log rather than fragmented emails.
- Assumptions Register: key assumptions for inflation, customer growth, usage, capital timing, debt, reserves, and rate phase-in will be tracked and versioned.
- Change Log: revisions between draft and final outputs will be documented so OPUD can see what changed, why it changed, and where the change is reflected.
- Budget tracking: Tangibl will track level of effort by task against the not-to-exceed budget and will notify OPUD promptly if scope, schedule, or data availability creates risk to the budget.

2.3 Scope Execution Plan

Tangibl's scope execution plan is structured to move OPUD from baseline data validation through final rate recommendations, Proposition 218 support, and staff handoff in a clear and defensible sequence. The work plan is intentionally organized around decision points rather than isolated technical tasks, so that OPUD staff, legal counsel, and the Board have a transparent record of how the recommended water and sewer rates were developed.

Mobilization, Kickoff, and Data Validation.

Tangibl will begin the engagement with a kickoff meeting to confirm project objectives, decision-makers, schedule, review cadence, Board meeting dates, data responsibilities, and communication protocols. Immediately following kickoff, Tangibl will issue a consolidated data request covering budgets, audited financial statements, trial balances, existing rate schedules, billing data, customer counts, usage history, debt schedules, capital plans, reserve policies, and any other relevant financial or operating information. This phase will establish the analytical foundation for the study. Tangibl will review the information provided by OPUD for completeness and reasonableness, reconcile major financial inputs to source records, and identify data gaps or assumptions that need staff confirmation. Tangibl will also establish an Issues Log, Assumptions Register, and Change Log so that questions, decisions, and revisions are tracked clearly from the beginning of the project.

Financial Plan and Revenue Requirements.

After validating the baseline data, Tangibl will build separate but coordinated financial plans for the water and sewer utilities. These plans will project revenues, operating and maintenance expenses, capital funding needs, debt service, reserve balances, and cash flow over the study period. The purpose of this phase is to determine the level of revenue required to maintain each utility's financial sustainability while supporting ongoing operations, capital investment, debt obligations, and reserve targets. Tangibl will develop baseline revenue requirements and alternative scenarios that allow OPUD to test the effect of changes in capital timing, inflation, growth, funding strategy, reserve targets, or rate implementation timing. The outputs will include revenue requirement exhibits, financial forecast schedules, reserve and debt-service coverage exhibits, and a concise scenario summary for staff review.

Cost-of-Service Analysis.

Tangibl will then perform water and sewer cost-of-service analyses using accepted industry methods of functionalization, classification, and allocation. This work will evaluate how the costs of providing service should be distributed across customer classes and rate components based on cost causation and available data. Tangibl will review current customer class definitions, existing rate structures, fixed and volumetric recovery, and revenue-to-cost relationships to determine whether current rates are reasonably aligned with the cost of service. The analysis will be documented through allocator workpapers, class-level results, current-rate equity findings, and a technical memorandum that explains the basis for the recommended allocation approach in a way that can support OPUD's internal review and Proposition 218 record.

Rate Design, Scenarios, and Bill Impacts.

Using the financial plan and cost-of-service results, Tangibl will develop a manageable set of rate scenarios for OPUD's consideration. The scenarios will be designed to balance revenue sufficiency, proportionality, customer impacts, revenue stability, administrative practicality, and public explainability. Tangibl will prepare recommended rate schedules and implementation options that show how proposed rates could be phased in over time. For each scenario, Tangibl will prepare bill-impact analyses by customer class and representative usage levels so OPUD can understand how rate changes affect different types of customers. The goal of this phase is not to produce an excessive number of theoretical options, but to give OPUD a practical set of decision-ready alternatives with clear tradeoffs.

Proposition 218 and Public Process Support.

Tangibl will translate the technical rate-study record into materials that support OPUD's Proposition 218 process. This work will include preparing technical inputs for the Proposition 218 notice, developing customer-facing explanations of the rate recommendations, preparing Board presentation materials, and supporting OPUD and legal counsel with Q&A materials and technical references. Tangibl will not provide legal advice, but will structure its work products so that the financial plan, cost-of-service analysis, rate design, and bill-impact exhibits are organized, traceable, and usable by OPUD and counsel during the public process. Consistent with OPUD's RFI clarification, Tangibl's scope includes attendance at two virtual Board meetings: one public information meeting and one final hearing or approval meeting.

Final Report, Model Handoff, and Staff Training.

At the conclusion of the engagement, Tangibl will prepare a draft report summarizing the data reviewed, assumptions used, financial plan, revenue requirements, cost-of-service findings, rate design alternatives, bill impacts, Proposition 218 support materials, and final recommendations. After receiving and incorporating OPUD staff comments, Tangibl will issue a final report and provide the unlocked Excel models, supporting workpapers, and model documentation. Tangibl will also conduct a staff handoff session focused on how OPUD can update key inputs, review assumptions, rerun scenarios, and use the model framework for future rate planning. This final phase is intended to leave OPUD with not only a completed rate study, but also a practical and reusable decision-support tool.

2.4 Proposition 218 Support Approach

Tangibl will support OPUD's Proposition 218 process by creating a rate record that is understandable, internally consistent, and grounded in cost causation. Tangibl will not provide legal opinions, and final legal review of notices, resolutions, and hearing procedures should be performed by OPUD counsel. Within that framework, Tangibl will provide the technical and communication support needed for a defensible public process.

- Proposition 218 calendar support, including a backwards-planned schedule for staff review, Board authorization, noticing, public information, protest period, final hearing, and implementation.
- Technical record support, including revenue requirements, cost-of-service findings, rate design rationale, bill impacts, and summary exhibits that connect proposed charges to service costs.
- Draft notice content inputs for OPUD and counsel review, including proposed rates, basis for the charges, effective date assumptions, and customer communication language.
- Public information meeting support, including a Board-ready slide deck, concise talking points, and anticipated questions and responses.
- Final hearing / approval meeting support, including a summary of the study, preferred rate path, public comments / protest-process coordination support as requested, and final recommendations.

Tangibl's public-process support also draws from its broader advisory work in ISO/RTO and regulatory settings, where our team routinely monitors formal stakeholder processes, prepares decision materials, supports client representatives, and converts complex technical and regulatory issues into practical briefing materials. That same discipline will be applied to OPUD's rate-study communication and adoption process.

2.5 Schedule and Milestones

Milestone	Timing	Purpose
Contract Execution / NTP	June 2026	Confirm scope, points of contact, document exchange method, calendar holds, and review cadence.
Kickoff and Data Request	Week 1 after NTP	Kickoff meeting and consolidated data request issued.
Data Validation and Baseline	Weeks 2-4	Data validation summary, issues register, and baseline financial review.
Financial Plan and Revenue Requirements	Weeks 5-10	Draft financial plan and revenue requirement findings for water and sewer.
Cost of Service and Rate Scenarios	Weeks 11-14	Draft COS results, rate scenarios, and bill impacts.
Public Information Board Meeting	Target after staff review	Virtual public information meeting with Board and staff.
Prop 218 Notice Package Support	Following preferred-rate selection	Draft notice inputs and technical support package for OPUD / counsel review.
Final Hearing / Approval Meeting	After applicable notice period	Virtual final hearing / approval support.
Final Report and Model Handoff	After Board direction	Final report, unlocked models, workpapers, and staff handoff session.

2.6 Deliverables

- Kickoff agenda, project schedule, consolidated data request, and project tracker.
- Data validation summary and documented Issues Log / Assumptions Register / Change Log.
- Water and sewer revenue requirement model and forecast exhibits.
- Cost-of-service workpapers and technical memorandum.
- Rate scenario and bill-impact exhibits by customer class and representative usage level.
- Draft and final written report with executive summary, methodology, findings, recommended rates, and implementation plan.
- Prop 218 support materials: notice inputs, presentation slides, Q&A support, and two virtual Board meeting presentations.
- Unlocked Excel-native models and model handoff documentation.

3. Related Project / Client Information

Tangibl's relevant project experience demonstrates our ability to deliver defensible revenue requirement analyses, allocated cost-of-service studies, rate design support, and implementation-ready workpapers for utilities with complex financial, regulatory, and customer-class considerations. The three examples below are most relevant to OPUD because they reflect Tangibl's experience developing auditable rate-study records, preparing reusable Excel-based models, supporting client decision-making, and maintaining cost control through authorized scopes and transparent communication.

Undine, LLC — Texas Water and Wastewater Utility.

Tangibl supported Undine, LLC in a full multi-utility rate case integration across more than fourteen water and wastewater portfolio companies. The engagement included revenue requirement development, allocated cost-of-service analysis, rate design, cost of capital, cash working capital, and per-books to pro-forma financial modeling. Tangibl's work produced more than 180 schedules reconciled to the general ledger and trial balance, along with reusable Excel engines that the client could use for future updates and related proceedings. This work is directly relevant to OPUD because it required the same core disciplines needed for a water and sewer rate study: financial validation, cost allocation, defensible rate design, clear documentation, and traceable workpapers.

The client contact is Benny Wilkinson, VP Financial Due Diligence, Houston, TX, +1 (281) 450-7499, bwilkinson@undinellc.com.

The initial authorization totaled $105,000 for the principal rate case work, with additional authorized hourly support during discovery, settlement, and ongoing advisory needs. There were no unapproved overruns; additional costs were driven by authorized proceeding support and administrative issues with the Public Utility Commission of Texas.

Cardinal Natural Gas Company — West Virginia and Virginia.

Tangibl has provided Cardinal Natural Gas Company with rate case and regulatory support across West Virginia and Virginia, including jurisdictional and divisional allocation, revenue requirement calculations, cost-of-capital and depreciation support, and working capital / lead-lag evidence packages. The work established a repeatable template for future updates, improving consistency, auditability, and efficiency across later proceedings. While Cardinal is a gas utility, the engagement is highly relevant to OPUD because it demonstrates Tangibl's ability to manage cost allocation, financial modeling, rate-case documentation, and client-facing technical support in a setting where assumptions, workpapers, and final recommendations must be explainable and defensible.

The client contact is John D. Jessee, Vice President, Abingdon, VA, +1 (276) 698-3128, jjessee@utilitypipelineltd.com.

Work has been authorized through discrete rate-case and ongoing support scopes since 2010. There have been no unmanaged change orders; extensions, where applicable, were tied to regulatory schedules and client-directed proceeding needs.

Canaan Valley Gas Company — West Virginia.

Tangibl has supported Canaan Valley Gas Company through multiple complete rate case proceedings, providing cost-of-service analysis, revenue requirement modeling, cost-of-capital support, bill studies, compliance-ready modeling, documentation, and testimony support. The engagement demonstrates Tangibl's long-term continuity with utility clients and our ability to maintain audit-ready workpapers that can support repeated updates over time. This experience is relevant to OPUD because the District will benefit from a rate study that is not only technically complete, but also organized so staff can understand the record, explain the results, and use the model framework after the engagement concludes.

The client contact is Arden Swecker, President, +1 (304) 637-5872, arden@canaanvalleygas.com.

Work has been performed through authorized matter-specific scopes. Final costs have tracked authorized proceeding needs, with no unapproved cost overruns attributable to Tangibl.

Initial Contract Amount	Proposal and Rate Structure	Final Study Cost	Overrun Explanation (if applicable)
Undine, LLC	Initial Application: Fixed Fee $105,000 Interrogatories / Rebuttal Testimony: Hourly	Initial Application: $105,000 + Authorized Hourly Billing Throughout the Proceedings	N/A
Cardinal Natural Gas Company	Initial Application: Fixed Fee $80,000 Interrogatories / Rebuttal Testimony: Hourly	Initial Application: $80,000 + Authorized Hourly Billing Throughout the Proceedings	N/A
Canaan Valley Gas Company	Initial Application: Fixed Fee $20,000 Interrogatories / Rebuttal Testimony: Hourly	Initial Application: $20,000 + Authorized Hourly Billing Throughout the Proceedings	N/A

3.1 California and Proposition 218 Relevance

Tangibl understands that OPUD's evaluation will place significant weight on whether the proposed study can be used in a California public-agency setting. The structure proposed for this engagement includes: 10-year financial planning, cost-of-service analysis, customer-impact testing, rate assistance / affordability considerations, Proposition 218 support, Board / Council communication, and unlocked Excel model handoff. Tangibl will bring this California-specific framework to OPUD while tailoring the analysis to OPUD's water and sewer data, local policies, and Board process.

4. Individual Staff Experience and Project Organization

4.1 Organization and Roles

Name / Title	Role	Responsibilities	Workload Commitment
W. Wade Horigan, Principal, CDP, CRRA	Project Manager / Senior Technical Lead	Primary OPUD contact; scope leadership; senior review of financial plan, revenue requirements, cost-of-service, rate design, and public materials; quality-control signoff; Board presentation support.	70 hours assumed in separate cost proposal; direct engagement from kickoff through final hearing.
Remo Shestani, MBA, CRRA	Financial and Rate Lead	Day-to-day coordination; data request and issue tracking; financial plan model; cost-of-service schedules; rate scenarios; bill impacts; draft report and presentation materials; model handoff documentation.	160 hours assumed in separate cost proposal; primary analytical execution role.
Mark Brozina, P.E.	Technical Advisor / Corporate Support	Executive and technical advisory support as needed for utility infrastructure interpretation, capital-program context, and signatory support.	6 hours assumed in separate cost proposal; available as needed.
Analyst / Model Support	Model Support	Billing-data cleanup, reconciliation checks, exhibit preparation, and formatting support under direction of the Financial and Rate Lead.	22 hours assumed in separate cost proposal.

4.2 Staff Bios

W. Wade Horigan, Principal, CDP, CRRA. Mr. Horigan's technical background in public utility rate consulting includes depreciation, rate base, cost of service, cost of capital, working capital, rate design, reactive power, project development, and financial modeling. He has testified on cost of service, rate design, and cost of capital issues before state regulators and has more than 15 years of project management experience. For OPUD, Mr. Horigan will serve as Project Manager and senior technical reviewer.

Remo Shestani, MBA, CRRA. Mr. Shestani is a utility finance professional with more than six years of experience across electric, gas, water, and wastewater sectors. He builds auditable models in Excel, VBA, Python, and R to support utility rate cases, project valuation, dispatch analysis, testimony, financial models, and stakeholder presentations. For OPUD, Mr. Shestani will lead the data request process, revenue requirements, cost-of-service schedules, rate scenarios, bill impacts, and report drafting.

Mark Brozina, P.E., President. Mr. Brozina has more than 40 years of experience in the U.S. utility industry. He provides executive leadership to Tangibl's engineering and consulting teams and brings practical utility infrastructure and capital-program perspective. For OPUD, he will provide technical advisory support as needed and corporate signatory support.

4.3 Capacity and Responsiveness

- Tangibl will reserve Principal and Financial Lead capacity for OPUD during the initial data validation, modeling, and Board-support windows.
- Routine staff requests will be acknowledged within one business day, with weekly status summaries during active modeling and review periods.
- Draft materials for scheduled meetings will be targeted for delivery at least three business days before the meeting, subject to timely receipt of OPUD comments and data.
- The proposed team is intentionally lean to minimize handoffs and ensure that the same personnel developing the analysis can explain it to staff and the Board.

5. Exceptions and Contract Acknowledgment

5.1 Exceptions

Tangibl proposes no substantive exceptions to the RFP at this time. Tangibl will review the final professional services agreement with OPUD during contract negotiation and will coordinate any administrative insurance certificate or endorsement mechanics with Tangibl's broker upon award. Tangibl understands OPUD's insurance requirements, including commercial general liability, automobile liability, workers' compensation, employers' liability, and professional liability to the extent applicable.

Appendix A. Condensed Resumes

W. Wade Horigan, Principal, CDP, CRRA

- Role for OPUD: Project Manager / Senior Technical Lead.
- Focus areas: public utility rate consulting, revenue requirements, rate base, depreciation, cost of service, cost of capital, working capital, rate design, testimony support, and financial modeling.
- Professional designations: Certified Rate of Return Analyst (CRRA), Society of Utility and Regulatory Financial Analysts; Certified Depreciation Professional (CDP), Society of Depreciation Professionals.
- Education: Bachelor of Science in Business Management and Bachelor of Science in Economics, Pennsylvania State University.
- Representative assignments: rate case management and support for water, wastewater, gas, electric, railroad, and renewable generation clients; lead/lag studies; depreciation studies; cost-of-service and rate design support; FERC reactive supply tariff filings.

Remo Shestani, MBA, CRRA

- Role for OPUD: Financial and Rate Lead.
- Focus areas: utility finance modeling, revenue requirements, cost-of-service schedules, cost of capital, cash working capital / lead-lag, Excel / Power Query / VBA, Python, R, bill impacts, and stakeholder-ready exhibits.
- Professional designation: Certified Rate of Return Analyst (CRRA), Society of Utility and Regulatory Financial Analysts.
- Education: Master of Business Administration, West Chester University; Bachelor of Science in Finance and certificate in Data Analytics for Business, University of Pittsburgh.
- Representative assignments: end-to-end analyses for electric, gas, water, and wastewater rate cases; direct testimony support; more than 75 reactive-power tariff matters; financial models and board/investor presentations.

Mark Brozina, P.E.

- Role for OPUD: Technical Advisor / Corporate Support.
- Experience: more than 40 years in the utility industry, with executive leadership of Tangibl's engineering and consulting teams.
- Focus areas: utility transmission and distribution engineering, capital project delivery, grid modernization, utility operations, commercial structuring, and executive advisory support.
- Education: MBA in Finance, Drexel University; Bachelor of Science in Mechanical Engineering, Cornell University.

Appendix B. Condensed Testimonial / Case Support History

Person / Team	Relevant Area	Summary
W. Wade Horigan	State and federal utility matters	Testified or supported testimony on cost of service, rate design, cost of capital, depreciation, working capital, and reactive supply revenue requirements. Case support includes electric, gas, water, wastewater, hydro, wind, solar, and railroad matters.
Remo Shestani	Filed testimony and case support	Sponsored or supported testimony on cost of capital and cash working capital / lead-lag, including water/wastewater and gas proceedings. Supported more than 75 FERC reactive power tariff filings and related revenue requirement workpapers.
Tangibl Project Team	Public-sector and utility advisory	Prepared rate, financial, tariff, and regulatory support materials for municipal utilities, public authorities, investor-owned utilities, and energy infrastructure clients, including board/council-facing materials and reusable models.

Appendix C. Full Resumes of Tangibl Team

W. Wade Horigan
Principal

Mr. Horigan's technical background in public utility rate consulting includes a focus on depreciation, rate base, cost of service, cost of capital, working capital, rate design, and reactive power as well as project development and financial modeling. He has testified on cost of service, rate design and cost of capital issues before state regulators. Additionally, Mr. Horigan has over 15 years in project management experience that covers a wide range of functional areas, including power plant development, software design and implementation, and handling complex purchasing transactions for Fortune 1000 companies.

Mr. Horigan holds Bachelor of Science degrees in Business Management and Economics from the Pennsylvania State University.

Professional Experience

2009-2019 ..... MANAGER, BUSINESS DEVELOPMENT
TANGIBL GROUP, INC.

2019-PRESENT ..... PRINCIPAL
TANGIBL GROUP, INC.

Mr. Horigan is responsible for a wide range of assignments including financial analysis, rate case management, reactive power filings and cost of service, cost of capital, working capital and depreciation studies for electric, gas, water, and wastewater utilities and railroads.

Assignments include:

- *Avista Utilities, Spokane, WA* – Lead/lag study in support of Avista Utilities cash working capital requirements for its 2010 rate cases in Idaho, Oregon and Washington.
- *Bluefield Gas Company, Bluefield, WV* – Multiple cost of capital and lead/lag studies, as well as general rate case support for Bluefield Gas Company's rate case filings from 2011 to present.
- *Entergy Corporation, New Orleans, LA* – Data collection, analysis, and support for state and FERC depreciation studies for Entergy subsidiaries, including Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and System Energy Resources, Inc.
- *Great Bay Solar, Westover, MD* – Preparation and case support for the first FERC Reactive Supply and Voltage Control tariff for a solar resource in PJM.
- *Megan Oil & Gas Company, Spencer, WV* – Rate case management, including preparation of and support for all Rule 42 Exhibits for the utility's base rate filings before the West Virginia Public Service Commission. Exhibits included all minimum filing requirements specified by the West Virginia Code, cost of service, cost of capital, and depreciation studies.
- *National Passenger Railroad Corporation (Amtrak) - Philadelphia, Pennsylvania* – Performed historical cost analysis in support of new units of property for passenger cars. Performed financial analysis and data review in support of the September 30, 2008 depreciation study, which involved updating service life and net salvage estimates and calculating depreciation for all of Amtrak's road and equipment property.
- *Ni Florida, LLC, Houston, TX* – Rate base study for the company's South Carolina wastewater utility

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acquisition in support of a transition from margin-based ratemaking to rate base plus rate of return ratemaking principles. Analyzed and proposed revisions to historic capitalization rates of various labor, repairs, maintenance, engineering and other related expenditures.

- *West Virginia Utility Company, Charleston, WV* – Rate case management, preparation of and support for all Rule 42 Exhibits for three affiliated utilities' base rate cases before the West Virginia Public Service Commission. Preparation of and support for cost of service, cost of capital, and working capital lead/lag studies, and financial analysis in support of the company's proposed merger of five affiliated companies before the West Virginia Public Service Commission.

2003-2009 ..... FUNCTIONAL ARCHITECT
SENIOR CONVERSION PROJECT MANAGER
PRODUCT MANAGER
GRANT STREET GROUP, INC.

Grant Street Group, Inc. creates and delivers a custom Software as a Service (SaaS) solution to governments and the financial sector.

- Primary project manager for six implementations of TaxSys, a web-based tax collection and billing system that is used to collect taxes on over 2 million parcels in Florida, including the creation and management of all project documents, the project timeline, deliverables, personnel assignments, reporting progress, changes in scope, and risks to all stakeholders.
- Oversaw the data conversion for real estate, tangible personal property, centrally assessed property, business licenses and tourist development tax data from legacy systems.
- Identified potential revenue opportunities by developing and marketing new products to existing client base to increase the efficiency of escrow processing, DMV transactions and electronic payments.
- Lead the functional requirements gathering and gap analyses between clients' existing systems and TaxSys, including the drafting of functional specifications for any enhancements required to meet client needs.
- Managed the planning, development, deployment and sales efforts of LienAuction, the first software built to conduct online sales of property tax liens by government authorities to individual and institutional investors, generating over $2.2 million in recurring annual revenue.
- Guest speaker at the annual meetings of the National Tax Lien Association, Florida Tax Collector's Association, Colorado Treasurer's and Tax Collector's Association, Nevada Treasurer's Association and the National Association of County Officials.

2001-2003 ..... MARKET MAKER
FREEMARKETS, INC. (NOW ARIBA, INC.)

FreeMarkets, Inc. was formed to provide sourcing guidance and execution, category knowledge, project management and sourcing performance improvement services to Fortune 100 companies.

- Analyzed and benchmarked prices for corrugated packaging products, comparing clients' current spend data to historic results, industry publications, and relevant market indices to determine the potential savings that could be captured through the use of proper lotting strategies and an online bid.
- Organized, drafted and distributed Requests for Quotation (RFQs) for Fortune 1000 clients including Alcoa, BP, GlaxoSmithKline, Johnson & Johnson, Lear and Siemens for paper, packaging products, transportation, temporary labor and other items totaling $170 million, including managing the data collection and organization, user training and supplier selection for online markets and other strategic sourcing initiatives.

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- One of twelve employees selected to join the cross-functional team responsible for the design, creation and implementation of FreeMarkets' ISO 9000-based quality system that reduced externally facing quality issues by 92% in fewer than 5 weeks and won the company's Team Award for Q4 2001.
- Selected for the Lean Operations Pilot Program, which applied the principles of Lean Manufacturing to FreeMarkets' Sourcing Operations process and procedures, reducing internal costs, man-hours and overall project duration by 25% for the Paper & Packaging group. This program was extended to all of Sourcing Operations.

Professional Societies

Mr. Horigan has been awarded the professional designation Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts (SURFA), and the Certified Depreciation Professional (CDP) designation by the Society of Depreciation Professionals (SDP). He served on the SDP Board of Directors for two years.

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Remo Shestani, MBA, CRRA
Lead Analyst

Mr. Shestani is a utility finance professional with 6+ years of experience across the electric, gas, water, and wastewater sectors. A trained data scientist, he builds auditable models in Excel/VBA, Python, and R to support utility rate cases, project valuation, and dispatch, translating complex analytics into defensible testimony, financial models, and stakeholder presentations. He has worked on matters before numerous state regulatory commissions and the FERC, including rate case proceedings—where he has sponsored direct testimony on cost of capital and working capital—and reactive power revenue-requirement tariff filings, with involvement in more than 75 reactive tariff cases to date.

Education

Mr. Shestani attained a Master of Business Administration degree in December of 2023 from West Chester University of Pennsylvania. Additionally, Mr. Shestani attained both a Bachelor of Science degree in Finance, and a certificate in Data Analytics for Business, from the University of Pittsburgh in April of 2019.

Work Experience

2021 -PRESENT ..... LEAD ANALYST – RATE CONSULTING
TANGIBL GROUP, INC.

- End-to-end analyses for electric/gas/water rate cases.
- 75+ reactive-power (Schedule 2) tariff filings—revenue-requirement models, eTariff exhibits, and deficiency responses.
- Sponsor/support direct testimony on cost of capital (DCF, CAPM/ECAPM, risk-premium) and cash working capital/lead-lag before multiple state commissions and FERC.
- Build auditable Excel/PowerQuery/VBA + Python/R models (dispatch, valuation, KPI dashboards), incl. recip-engine peaker cases for hyperscale data-center supply; integrate PJM energy/capacity/ancillary revenues.
- Communicate complex analytics via defensible testimony, regulator-ready workpapers, board/investor decks; co-author research used for BD strategy.

2019 - 2021..... ANALYST – RATES AND DEPRECIATION
TANGIBL GROUP, INC.

Volunteer Work

- Sigma Alpha Epsilon: Organized philanthropy events to raise money and awareness for the Pittsburgh Children's Hospital; was then elected Recruitment Chair and created a successful recruitment platform that tripled the fraternity's size in the span of 3 semesters.
- GPAC Food Bank: Volunteered my time to better the community and was designated Volunteer Leader having completed over 75 hours of service.
- BuildOn: As Trek Team Member raised more than $60,000 to fulfill the mission of building 1 school per year in an underdeveloped country.

Professional Societies

Mr. Shestani has been awarded the professional designation Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts (SURFA).

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Mr. Brozina has over 40 years' experience in virtually all aspects of the U.S. electric utility industry. He is President of Tangibl Group, Inc., a professional engineering, and consulting firm serving utilities, large conventional and renewable power generators and their financial partners.

Mr. Brozina's work has involved project management and project engineering of electric transmission and distribution primary equipment, protection and control systems and their interface with power generating facilities ranging in size from small, distributed generation to nuclear units. Early in his career he was responsible for field operations and maintenance of a major utility's protection and control systems, and oversaw the commissioning, testing and startup of bulk power protection and control systems, transformer, and capacitor banks. As a representative of a premium supplier of high voltage switching and protection equipment, Mr. Brozina was successful in applying proprietary products to change utilities' established ways of operating their systems. He has combined his business, venture, and technical experience to build a successful professional services practice helping clients solve difficult problems in constrained environments.

Mr. Brozina has been an active participant in industry committees, including leadership of working groups at the Edison Electric Institute and membership in stakeholder groups at PJM Interconnection, LLC. Mr. Brozina has spoken extensively at industry seminars and meetings over the past ten years and as a guest lecturer at Cornell University.

Mr. Brozina holds a BS in Mechanical Engineering from Cornell University, and an MBA in Finance from Drexel University. He is a registered professional engineer in New Jersey.

Major Accomplishments

1999 - PRESENT ..... PRESIDENT
TANGIBL GROUP, INC.

- Responsible for executive leadership, corporate, business development and planning activities and profit & loss of all Tangibl professional services business lines.
- Led restructuring of the business to focus on electric utility, power generation, utility rate consulting, RTO, regulatory and project development services.
- Negotiated agreements with utilities, independent power producers and private equity fund managers.
- Recruited key managers into the firm.

1997 - 1999..... DIRECTOR OF SALES
PECO ENERGY VENTURES GROUP

Responsible for national utility sales in North America for Infrastructure Services venture (ultimately spun out as InfraSource, now part of Quanta Services):

- Introduced venture to utility market and assisted in development of Maintenance Excellence product.
- Led team that developed an innovative proposal for transmission power supply to expanding steel mill that bundled 138kV independently built and owned transmission & substation infrastructure with retail energy into a capacity and energy contract. Project team included a merchant bank, equipment suppliers, utility-grade contractors, and PECO Energy finance-function staff support.
- Telecommunications infrastructure build-out for a New England utility and predictive maintenance pilot project at various other utilities.

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Responsible for regional industrial and large commercial sales activity in Horizon Energy, a wholly owned subsidiary of PECO Energy and licensed marketer in Pennsylvania's electric deregulation pilot program:

- Achieved goals both within and outside of parent company's service territory.
- Responsible for initial staff of 4 outside salespeople, plus 4 inside sales support personnel.
- Opened Pittsburgh sales office and added 2 outside salespeople for western and central Pennsylvania.

1986 - 1997..... TERRITORY MANAGER
S&C ELECTRIC COMPANY

Responsible for territory sales and marketing for S&C Electric Company, opening the company's first sales office in Philadelphia in 1986 and made the following major accomplishments:

- Introduced Series 2000 Circuit-Switcher, which prompted major change in 230kV transformer-protection philosophy at Philadelphia Electric Company.
- Introduced SCADA-MATE distribution-automation-switching device for utility market, ultimately adopted as a standard at Delmarva Power and GPU Energy.
- Introduced Electronic Fuse for metal-enclosed switchgear in power user market. Sales include 13kV service equipment never supplied previously by S&C in the Philadelphia Electric service area, and domination of Wilmington, Delaware 12kV switchgear market.
- Developed market for custom switching products for 25Hz traction power applications at Amtrak and SEPTA, including signal power switches, catenary switches, and Circuit-Switcher.

1979 - 1986..... VARIOUS ENGINEERING AND OPERATING ROLES
PUBLIC SERVICE ELECTRIC & GAS COMPANY

Progressed from Intern and Associate Engineer to Senior Staff Engineer with the following responsibilities:

- Senior Staff Engineer in the General Office with responsibilities for 13kV recloser standards.
- Responsible for supervision of 10 bargaining-unit relay technicians in Camden Division substation maintenance department.
- After completion of Management Orientation Program in Newark, various engineering roles in Camden Division under the direction of the Division Distribution Engineer, Division Service and Meter Engineer and Division Substation Engineer.
- 1979 summer intern in the Newark Load Dispatcher (Transmission Owner's Control Center).

Industry Memberships, Committees and Boards

- Senior Member, Institute of Electrical and Electronics Engineers, Power Engineering Society
- Member, American Society of Mechanical Engineers
- Co-chairman of working groups for the Edison Electric Institute's Transmission Distribution and Metering Committees including:
  - Distribution Committee's Workforce Management Working Group
  - Distribution Committee's Distribution Regulatory Working Group
- Participant in PJM Stakeholder Committees including:
  - Planning Committee
  - Transmission Expansion Advisory Committee
  - Reactive Services Working Group
  - Interconnection Project Management Working Group
- Past Member, Board of Directors, Cornell Research Foundation
- Past Member, Advisory Board, Cornell Center for Technology, Enterprise, and Commercialization
- Past Member, Administrative Board of the Cornell University Council
- Past Chairman, Technology Transfer Committee of the Cornell University Council

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Appendix D. Full Testimonial / Case Support History of Tangibl Team

Horigan Testimonial History

Testimonial History of W. Wade Horigan

Regulatory Cases

State/Fed	Agency	Docket Number	Company	Utility Type	Primary Issue
Fed	FERC	ER20-2186-003 EL20-62-001	Fern Solar, LLC (Baywa R.E.)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2576	Holloman Lessee, LLC (SunEnergy1)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-936	Whitetail Solar 2, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1633	Elk Hill Solar 2, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1937	Altavista Solar, LLC (Algonquin/Liberty Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2091	Mechanicsville Solar, LLC (SunEnergy1)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2329	Minonk Stewardship Wind, LLC (Akuo Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2364	Albemarle Beach Solar, LLC (SunEnergy1)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2449	Assembly Solar II, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2832	Eagle Creek Reusens Hydro, LLC	Hydro	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2833	Great Falls Hydroelectric Company	Hydro	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2892	Prairie Wolf Solar, LLC (National Grid Renewables)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2919	Camp Grove Wind Farm LLC (Orion Renewable Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-80	Coyote Ridge Wind, LLC (WEC Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-93	Tatanka Ridge Wind, LLC (WEC Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-241	Aragonne Wind LLC (Leeward Renewable Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-387	Crescent Ridge LLC (Leeward Renewable Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-420	Wisconsin Public Service Corporation (Two Creeks Solar)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-424	Assembly Solar III, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-615	Prairie State Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-616	Dressor Plains Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-728	Pegasus Wind, LLC (NextEra Energy Resources)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-745	Cove Mountain Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-746	Cove Mountain Solar 2, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-839	Copper Mountain Solar 5, LLC (CEB)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-840	Battle Mountain SP, LLC (CEB)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-841	Spring Valley Wind LLC (Pattern Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-865	Glaciers Edge Wind Project LLC (EDF)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1076	Hawtree Creek Solar Farm, LLC (ENGIE)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1123	Elk Hill Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1136	Sac County Wind, LLC (NextEra Energy Resources)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1610	Big River Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1815	Mulligan Solar, LLC (Apex Clean Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1869	Bishop Hill Energy LLC (Brookfield Renewables)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2048	Skipjack Solar, LLC (SPG)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2148	Blooming Grove Wind Energy Center LLC (WEC Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2522	Ledyard Windpower, LLC (Duke Energy Renewables)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2832	Cardinal Point LLC (Capital Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2867	Bluegrass Solar LLC (Conductive Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2942	Endeavor Wind II (NextERA Energy Resources)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2976	WPPI Energy	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-47	Endeavor Wind I (NextERA Energy Resources)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-273	Wisconsin Public Service Corporation (Badger Hollow Solar)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-317	Riverstart Solar Park (EDP Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-494	Goose Creek Wind LLC (Apex Clean Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-546	Meadowlark Wind I LLC (Capital Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-628	Bellflower Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1171	MD Solar 2, LLC (Conductive Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1569	Yellowbud Solar, LLC (National Grid Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1736	Big Plain Solar, LLC (Leeward Renewable Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1752	Oak Trail Solar, LLC (Leeward Renewable Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-2112	Sandy Ridge Wind 2, LLC (Algonquin/Liberty Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-2692	Madison Fields Solar, LLC (Savion)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-19	Cottontail Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-20	Cottontail Solar 2, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-21	Cottontail Solar 8, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-81	Shady Oaks Wind 2, LLC (Algonquin/Liberty Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-778	Riverstart Solar Park (EDP Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-942	Cottontail Solar 4, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-943	Cottontail Solar 5, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-945	Cottontail Solar 6, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-1307	Glover Creek Solar, LLC (Pine Gate Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-1454	Riverstart Solar Park (EDP Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-1761	Harmony Florida Solar II, LLC (NextEra Energy Resources	Solar	Cost based rate filing, revenue requirements
Fed	FERC	ER24-1762	Storey Bend Solar, LLC (NextEra Energy Resources	Solar	Cost based rate filing, revenue requirements
Fed	FERC	ER24-1763	FRP Tupelo Solar, LLC (NextEra Energy Resources)	Solar	Cost based rate filing, revenue requirements
Fed	FERC	ER24-1929	Willowbrook Solar I, LLC (RWE)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-2956	Honeysuckle Solar, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER25-60	Fox Squirrel Solar LLC (EDF)	Solar	Reactive Supply and Voltage Control Tariff filing
TX	PUCT	56354	Undine, LLC	Water/Wastewater	Cost of service, cost of capital, working capital and revenue requirements
VA	CVSCC	PUR-2018-00015	Appalachian Natural Gas Distribution Company	Gas	Cost of capital
WV	WVPSC	09-2069-G-42T	Megan Oil & Gas Company	Gas	Cost of service, cost of capital, working capital and revenue requirements
WV	WVPSC	11-0410-G-42T	Bluefield Gas Company	Gas	Cost of capital
WV	WVPSC	11-0532-G-42T	Megan Oil & Gas Company	Gas	Cost of capital, billing analysis
WV	WVPSC	11-0564-W-42T	Beckley Water Company	Water/Wastewater	Working capital lead/lag study
WV	WVPSC	11-1321-G-42T	Blacksville Oil & Gas Company	Gas	Cost of capital, working capital lead/lag study

Testimonial History of W. Wade Horigan

Regulatory Cases (cont'd)

State/Fed	Agency	Docket Number	Company	Utility Type	Primary Issue
WV	WVPSC	12-0064-E-42T	Black Diamond Power Company	Electric	Cost of capital, working capital lead/lag study
WV	WVPSC	12-0427-G-42T	Bluefield Gas Company	Gas	Cost of capital, working capital lead/lag study
WV	WVPSC	12-0661-G-42T	Canaan Valley Gas Company	Gas	Cost of capital
WV	WVPSC	17-0535-G-42T	Union Oil & Gas, Inc.	Gas	Cost of capital
WV	WVPSC	17-0565-G-42T	Bluefield Gas Company	Gas	Cost of capital, working capital lead/lag study
WV	WVPSC	22-0789-G-42T	Canaan Valley Gas Company	Gas	Cost of service, cost of capital, and revenue requirements
WV	WVPSC	24-0316-G-42T	Cardinal Natural Gas Company - Northern and Southern Divisions	Gas	Cost of service, cost of capital, and revenue requirements

Case Support (No testimony filed)

State/Fed	Agency	Docket Number	Company	Utility Type	Primary Issue
FL	FLPSC	100126	CFAT H2O, Inc.	Water/Wastewater	Complete rate case preparation, including rate base, cost of service, cost of capital, working capital, billing analysis and revenue requirements
FL	FLPSC	100127	Tradewinds Utilities, Inc.	Water/Wastewater	Complete rate case preparation, including rate base, cost of service, cost of capital, working capital, billing analysis and revenue requirements
ID	IPUC	AVG-10-01-E	Avista Corporation	Electric/Gas	Cash working capital study
Fed	FERC	EL17-41-000	System Energy Resources, Inc.	Electric	Data collection, analysis, depreciation, cost of removal and net salvage estimates in support of a Depreciation Study for SERI Grand Gulf nuclear facility
Fed	FERC	ER17-2386	Great Bay Solar I, LLC (Algonquin/Liberty Power)	Solar IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER18-2317	Meadow Lakes Wind Farm V (EDP Renewables)	Wind IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER18-2337	Blackstone Wind Farm (EDP Renewables)	Wind IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER19-62	OneEnergy Baker Point Solar (Cypress Creek Renewables)	Solar IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER19-751	Buffalo Ridge II LLC (Avangrid Renewables)	Wind IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER19-1195	GSG 6, LLC (Algonquin/Liberty Power)	Wind IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER19-1506	Minonk Wind, LLC (Algonquin/Liberty Power)	Wind IPP	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-707	Eastern Shore Solar LLC (Dominion Energy)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-714	Whitetail 1 Solar, LLC (Lightsource BP)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-860	Green River Wind Farm Phase 1, LLC (Geronimo Energy)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1455	Cordova Energy Company LLC (BHE)	Nat Gas Power Plant	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1618	Red Horse Wind 2, LLC (DE Shaw Renewable Investments)	Wind and Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1619	Red Horse III, LLC (DE Shaw Renewable Investments)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1851	Whitetail 3 Solar, LLC (Lightsource BP)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1863	Ingenco Wholesale Power, LLC (Castleton Commodities International)	Nat Gas Power Plant	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1936	Walnut Ridge Wind (BHE)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1952	North Star Solar (DE Shaw Renewable Investments)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2018	Great Bay Solar II (Algonquin/Liberty Power)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2023	Techren Solar II, LLC	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2446	Bitter Ridge Wind Farm, LLC (Scout Clean Energy)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2471	NedPower Mount Storm, LLC (Castleton Commodities International)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2528	Airport Solar LLC (DE Shaw Renewable Investments)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2719	Ringer Hill Wind, LLC (Skyline Renewables)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2819	Pleinmont Solar 1, LLC (SPG)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2883	Laurel Mountain Wind, LLC (AES)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-21	Harts Mill Solar, LLC (Kayne Anderson)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-350	Highlander Solar Energy Station 1, LLC (SPG)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-521	Richmond Spider Solar, LLC (SPG)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-762	Bishop Hill Energy II, LLC (BHE)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1046	Sugar Creek Wind One LLC (Algonquin/Liberty Power)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1215	Assembly Solar I, LLC (DE Shaw Renewable Investments)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1339	California Ridge Wind Energy, LLC (Brookfield)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1365	Fowler Ridge IV Wind Farm LLC (Pattern)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1501	Sandy Ridge Wind LLC (Algonquin/Liberty Power)	Wind Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1525	Centerfield Cooper Solar, LLC (Pine Gate)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1696	Bluestone Solar, LLC (ENGIE)	Solar Facility	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2968	Upper Michigan Energy Resources Corporation	Nat Gas Power Plant	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	EL25-25	Great Bay Solar I, LLC et al	Solar/Wind	Reactive Supply and Voltage Control Tariff filing
ID	IPUC	AVG-10-01-G	Avista Corporation	Electric/Gas	Cash working capital study
LA	LPSC	U-32707	Entergy Louisiana	Electric	Data collection, analysis, depreciation, cost of removal and net salvage estimates in suppport of a Depreciation Study
MS	MPSC	EC-123-0082-00	Entergy Mississippi	Electric	Data collection, analysis, depreciation, cost of removal and net salvage estimates in suppport of a Depreciation Study
OR	ORPUC	UG 201	Avista Corporation	Gas	Cash working capital study
SC	SCPSC	2011-24-S	Palmetto Utilities	Wastewater	Rate base study in support of application for increase in rates.
WA	WUTC	UE-100467	Avista Corporation	Electric/Gas	Cash working capital study
WA	WUTC	UG-100468	Avista Corporation	Electric/Gas	Cash working capital study
WV	WVPSC	08-2030-E-PC	Black Diamond Power Company, Elk Power Company, Union Power Company, West Virginia Utility Company	Electric	Merger justification and support
WV	WVPSC	09-1985-E-42T	Black Diamond Power Company	Electric	Complete Rule 42 Exhibit preparation, including rate base, cost of service, cost of capital, working capital and revenue requirements
WV	WVPSC	09-1986-E-42T	Elk Power Company	Electric	Complete Rule 42 Exhibit preparation, including rate base, cost of service, cost of capital, working capital and revenue requirements
WV	WVPSC	09-1987-E-42T	Union Power Company	Electric	Complete Rule 42 Exhibit preparation, including rate base, cost of service, cost of capital, working capital and revenue requirements
WV	WVPSC	10-0757-G-PC	Megan Oil & Gas Company	Gas	Rate base and depreciation related to request for change in depreciation rates.

Case Support History of Remo Shestani

Case Support (Testimony filed)

State/Fed	Agency	Docket Number	Company	Utility Type	Primary Issue
State	WVPSC	23-0564-G-42T	Cardinal Natural Gas Company - Southern Division	Gas	Cash Working Capital Requirements (Lead/Lag Study) Witness
State	WVPSC	24-0316-G-42T	Cardinal Natural Gas Company - Northern and Southern Divisions	Gas	Cash Working Capital Requirements (Lead/Lag Study) Witness
State	WVPSC	22-0789-G-42T	Canaan Valley Gas Company	Gas	Cost of Capital Witness, Cash Working Capital Requirements (Lead/Lag Study) Witness
State	PUCTX		56354 Undine, LLC	Water/Wastewater	Cost of Capital Witness, Cash Working Capital Requirements (Lead/Lag Study) Witness

Case Support (No testimony filed)

State/Fed	Agency	Docket Number	Company	Utility Type	Primary Issue
Fed	FERC	ER17-1463	Ranchland Solar, LLC (SunEnergy 1)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER19–812	Macho Springs Power I, LLC (Capital Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1851	Whitetail 3 Solar, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-1853	Whitehorn Solar, LLC (ENGIE)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2471	NedPower Mount Storm, LLC (Castleton Commodities International)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2818	Ben Moreell Solar Farm, LLC (Conductive Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-2883	Laurel Mountain Wind, LLC (AES)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER20-714	Whitetail 1 Solar, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1215	Assembly Solar I, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1339	California Ridge Wind Energy, LLC (Brookfield)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1365	Fowler Ridge IV Wind Farm LLC (Pattern)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1501	Sandy Ridge Wind LLC (Algonquin/Liberty Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1525	Centerfield Cooper Solar, LLC (Pine Gate)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1633	Elk Hill Solar 2, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-1937	Altavista Solar, LLC (Algonquin/Liberty Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2091	Mechanicsville Solar, LLC (SunEnergy1)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-21	Harts Mill Solar, LLC (Kayne Anderson)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2329	Minonk Stewardship Wind, LLC (Akuo Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2449	Assembly Solar II, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-2919	Camp Grove Wind Farm LLC (Orion Renewable Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-350	Highlander Solar Energy Station 1, LLC (SPG)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-762	Bishop Hill Energy II, LLC (BHE)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER21-936	Whitetail Solar 2, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1076	Hawtree Creek Solar Farm, LLC (ENGIE)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1123	Elk Hill Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1777	Madison Fields Solar Project, LLC (Savion)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-1815	Mulligan Solar, LLC (Apex Clean Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2048	Skipjack Solar, LLC (SPG)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2148	Blooming Grove Wind Energy Center LLC (WEC Energy Group)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-2832	Cardinal Point LLC (Capital Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-615	Prairie State Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-616	Dressor Plains Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-745	Cove Mountain Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-746	Cove Mountain Solar 2, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER22-841	Spring Valley Wind LLC (Pattern Energy)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-108	MD Solar 2, LLC (Conductive Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1220	High Point Solar, LLC (Acciona)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1470	Cottontail Solar 2 (Lighsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1476	Cottontail Solar 8 (Lighsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1569	Yellowbud Solar, LLC (National Grid Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1829	Shady Oaks Wind 2, LLC (Algonquin)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-317	Riverstart Solar Park (EDP Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-628	Bellflower Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1171	MD Solar 2, LLC (Conductive Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1569	Yellowbud Solar, LLC (National Grid Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1736	Big Plain Solar, LLC (Leeward Renewable Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-1752	Oak Trail Solar, LLC (Leeward Renewable Energy)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-2112	Sandy Ridge Wind 2, LLC (Algonquin/Liberty Power)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER23-2692	Madison Fields Solar, LLC (Savion)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-19	Cottontail Solar 1, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
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Fed	FERC	ER24-21	Cottontail Solar 8, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-81	Shady Oaks Wind 2, LLC (Algonquin/Liberty Power)	Wind	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-778	Riverstart Solar Park (EDP Renewables)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-942	Cottontail Solar 4, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-943	Cottontail Solar 5, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	ER24-945	Cottontail Solar 6, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	New Market Solar ProjectCo 1, LLC (Algonquin)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	New Market Solar ProjectCo 2, LLC (Algonquin)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Willowbrook Solar I, LLC (RWE)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Fox Squirrel Solar, LLC (EDF)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Hecate Energy Highland Solar, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Honeysuckle Solar, LLC (Lightsource BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Arche Energy Project, LLC (BP)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Bartonsville Energy Facility, LLC (DE Shaw Renewable Investments)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Adams Solar, LLC (Energix)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Caden Energix Axton, LLC (Caden Energix)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Waverly Solar East, LLC (Energix)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Waverly Solar West, LLC (Energix)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Blue Harvest Solar, LLC (EDPR)	Solar	Reactive Supply and Voltage Control Tariff filing
Fed	FERC	Pending	Timber Road Solar, LLC (EDPR)	Solar	Reactive Supply and Voltage Control Tariff filing

LT MUNICIPAL CONSULTANTS

May 22, 2026

OLIVEHURST PUBLIC UTILITY DISTRICT

Proposal for a Water and Sewer Rate Study

909 Marina Village Parkway #135 | Alameda, CA 94501 | (510) 545-3182

LT MUNICIPAL CONSULTANTS

909 Marina Village Parkway #135
Alameda, CA 94501
(510) 545-3182
LTmuniconsultants.com

May 22, 2026

Swarnjit Boyal, Public Works Engineer
Olivehurst Public Utility District
1970 9th Avenue,
Olivehurst, CA 95961

Dear Mr. Boyal,

LT Municipal Consultants (LTMC) is pleased to submit a proposal for a Water and Sewer Rate Study for the Olivehurst Public Utility District (OPUD or District). LTMC is a woman-owned firm and small business that focuses on financial planning, rate and fee studies, and management consulting for California public agencies. Principal Alison Lechowicz has nearly 20 years of experience in municipal consulting and public finance. Our staff have completed over 200 studies compliant with Propositions 218 and 26, with a focus on serving small public agencies. Ms. Lechowicz was born and raised in San Joaquin County and enjoys working with communities throughout the Central Valley and Northern California.

Our firm has local experience including a rate and connection fee study for the Linda County Water District and studies for the Biggs-West Gridley Water District, Butte Water District, Butte City Community Services District, City of Live Oak, and Reclamation District 2016 and a sewer industrial permit fee study for the City of Williams. We are also currently conducting rate studies for the cities of Corning, Red Bluff, and Willows. LTMC will bring our local experience to our work with OPUD.

What sets LTMC apart is that we provide a high degree of administrative support to our clients. We will provide start-to-finish project management from data collection, organizing meetings, providing minutes, drafting preliminary and final documents, conducting internal and external outreach, and managing the project schedule. LTMC's technical approach to the rate study process is as follows:

- **Financial Analysis:** The District's most recent water and wastewater rate study was conducted in 2022 and included rates through 2027. LTMC will incorporate results from ongoing engineering studies and analyze revenue streams to meet immediate cash flow needs as well as plan for future capital projects. We will provide the District with a financial roadmap that clearly illustrates how various considerations such as high vs. low capital improvement costs and how various funding assumptions (such as the loss of grant funding from the Yuba Water Agency) will impact utility cash flows.

- **Rate Design:** For the water and sewer rates, we will review rate design considerations based on Proposition 218 requirements and industry best practices. There have been several recent court rulings regarding tiered water rates and base water allotments. Most likely, we will

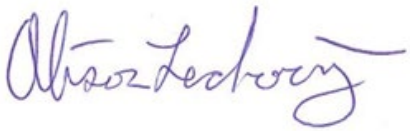
recommend that the District eliminate or reduce the water allotment included in the base fee. Potential sewer rate structure adjustments could include introducing a reduced multi-family sewer rate. We understand that the service areas are heavily residential but could experience commercial growth in the next few years. We can potentially add new rate categories to ensure these customers are billed fairly. LTMC will provide options to the District and describe the advantages and disadvantages of any proposed changes.

- **Report:** LTMC will provide a comprehensive narrative report that explains cost-of-service principles, calculations, and final recommendations. We use our reports as part of our outreach approach by making them available to the public and by using language from the report throughout our outreach materials. Any ratepayer should be able to read the report and follow the calculations with a handheld calculator. This approach allows the District to make future rate updates more easily and understand how different financial variables influenced our recommendations. We envision a more comprehensive cost of service report than the District's current rate study that will offer a more substantial explanation of the ratemaking process. This will provide a more robust administrative record to comply with Proposition 218.

- **Public Outreach:** Building consensus is a key component of the rate study process. LTMC will assist staff with conducting outreach to the Board of Directors and ratepayers, drafting Proposition 218 notices, providing a script for the public hearing, conducting community outreach, and preparing materials for social media postings. Our final documents and outreach materials will stress the value of the District's infrastructure, explain why costs are increasing, and describe cost saving measures. We will also coordinate the printing and mailing of the Proposition 218 notice of public hearing and translate to Spanish if needed.

We would very much like to work with the District, and we hope this proposal will constitute a suitable basis for our selection. If you have any questions, please contact us.

Sincerely,
LT Municipal Consultants



Alison Lechowicz, Principal and Authorized Representative
909 Marina Village Parkway #135
Alameda, CA 94501
(510) 545-3182 (office)
(209) 747-3106 (cell)
alison@LTmuniconsultants.com

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CONSULTANT IDENTIFICATION & QUALIFICATIONS

FIRM BACKGROUND

LT Municipal Consultants was built on the expertise of its female founders Alison Lechowicz and Catherine Tseng and is now owned solely by principal Alison Lechowicz.

Our objective is to provide financial consulting and management services to local governments. Alison has nearly 20 years of experience in municipal consulting and public finance. She also has experience working for a civil engineering firm and a background in public administration.

LTMC is committed to providing professional services with superior value and responsiveness. By utilizing a small team approach, our clients receive greater one-on-one attention and can be assured that the work is conducted by highly qualified professionals. Our clients are provided direct communication with the principal consultant who guides the project through each step.

Nature of firm: Woman-owned firm founded in 2017 and organized as an LLC
Services: Impact Fee Studies, Utility Rate & Fee Studies, Financial Planning, Utility Appraisal, Expert Witness, Public Approval Process
Size of firm: Four staff members consisting of three consultants and one office manager
Location of office: Alameda, CA
Years in business: 9 years
Other languages spoken by staff: Spanish

SERVICES

Utility Rate & Fee Studies

Utility rate studies deriving both traditional and innovative rate structures that comply with cost of service principles and Proposition 218 requirements.

Impact Fee/Capacity Charge Studies

Development impact fees and capacity charge studies that offset the cost of expanding infrastructure to serve new development without placing a burden on existing customers.

Financial Planning & Modeling

Comprehensive financial plans focused on immediate needs as well as the long-term viability of agencies. Our financial models are flexible and user-friendly to allow for cash flow sensitivity analysis and to illustrate the impacts of policy decisions.

Public Approval Process

Lead informational workshops to educate the public about municipal finance. We provide start-to-finish assistance in the rate and fee approval process, including presentations to decision makers, publication of reports, and printing and mailing of notices (as applicable).

Utility Appraisal

Develop an inventory of utility assets and determine fair market value. We assist public agencies with negotiating the purchase or sale of utility property.

Expert Witness

Testify on behalf of public agencies to defend against lawsuits. We also represent public agencies as streetlight customers of California's electric utility providers in rate cases at the CA Public Utilities Commission.

IDENTIFICATION

- Our firm was founded in 2017 and our legal name is *Lechowicz & Tseng Municipal Consultants, LLC*. For brevity, we refer to our firm as *LT Municipal Consultants*.

- Alison Lechowicz is the firm's owner and will be the project manager for this assignment. Her contact information is listed below:

Alison Lechowicz, Principal and Authorized Representative
909 Marina Village Parkway #135
Alameda, CA 94501
(510) 545-3182 (office)
(209) 747-3106 (cell)
alison@LTmuniconsultants.com

EXPERIENCE

Provided below is a sample of LTMC's recent project experience conducting studies like the work requested by OPUD.

CLIENT	ACCOUNTS OR PARCELS	PROJECT
City of Corning	2,400	Water and Sewer Rate Study (ongoing)
City of Live Oak	2,500	Water Rate Study (2025)
City of Fort Bragg	2,800	Impact Fee Nexus Study (2024) Water and Sewer Rate Study (2026)
Root Creek Water District	3,200	Water, Sewer, and Storm Drain Rate Study (2022)
City of Willows	3,300	Sewer Rate Study (ongoing)
City of Anderson	3,600	Water Rate Study (2021 & 2024) Sewer Rate Study (2025)
City of Kerman	3,900	Water and Sewer Rate Study (2018) Water, Sewer, and Storm Drain Rate Study (2024)
City of Kingsburg	4,000	Solid Waste Rate Study (2022) Water Rate Study (2025)
Westborough Water District	4,000	Water and Sewer Rate Study (2024)
City of Chowchilla	4,100	Water, Sewer, and Solid Waste Rate Study (2020 & 2025)
City of Red Bluff	4,700	Water and Sewer Rate Study (ongoing)
Butte Water District	4,800	Water Rate Study (2025)
City of Wasco	5,100	Water and Sewer Rate Study (2023)
Linda County Water District	5,400	Water and Sewer Rate Study (2025)
Town of Discovery Bay CSD	6,100	Water and Sewer Capacity Fee Study (2022) Water and Sewer Rate Study (2025)
City of Ridgecrest	12,000	Sewer Rate Study (2025)
Stege Sanitary District	13,100	Sewer Rate & Impact Fee Study (2019) Sewer Rate & Impact Fee Study (2024)
City of Hanford	18,000	Water, Wastewater, and Stormwater Rate Study (2024)
Fresno Irrigation District	245,000 acres	Financial Master Plan (2022)

PROJECT UNDERSTANDING AND APPROACH

This section summarizes LTMC's specialized experience relevant to the work requested by the Olivehurst Public Utility District.

Project Management

Our approach to our work is simple – we roll up our sleeves and get the job done. When initiating a project, it's impossible to know every twist and turn an assignment may take. Unexpected issues may arise, out of scope tasks may be required, and political sensitivities may become uncovered. We understand the challenges of operating small utilities. Agency staff serve multiple functions, data availability can be limited, and there is a greater need for administrative support from consultants. LTMC strives to be flexible and responsive. Our team consists of one project manager, a senior financial analyst, supporting financial analyst, and office administrator. We have found that this size of team is efficient for assignments for small to medium-sized public agencies and helps control costs. LTMC has an excellent track record of completing assignments on time and on budget.

Financial Planning

The fundamental objective for this rate study is to provide compliance with legal requirements while ensuring that the District's water and sewer utilities are self-sufficient. Our approach is to analyze revenue streams to meet immediate cash flow needs as well as plan for future capital projects. For the Olivehurst Public Utility District, we will provide a comprehensive review of water and sewer finances, including current and future operating and maintenance costs, capital improvement projects, and reserve balances. We will provide the District with multiple cash flow scenarios that will clearly illustrate how various considerations such as loan funding, loss of Yuba Water Agency grant funds, potential new regulatory costs, and high vs. low capital improvement costs, among others, will impact utility cash flows.

It is key that our final deliverables are easy for the District to understand and implement. We propose to organize our cash flows based on existing budget categories to allow for the easy import or export of data between documents. LTMC also structures our reports with reader-friendly executive summaries to allow the general public to grasp key concepts.

Rate Design

We are proponents of simplicity and respecting the current financial and political climate while phasing in rate adjustments. If the District is happy with its current rate structure, we will not propose major changes. Otherwise, LTMC will work with the District early in the process to determine policy concerns and desired rate structure changes. Ultimately, any changes that we make to the rates must be politically palatable to the District's elected officials. A few initial considerations are listed below.

Water Rates

The District's current water rate structure includes a fixed meter charge that covers a base allotment of water for various meter sizes plus a uniform volumetric charge for consumption over the base. This rate structure may no longer reflect current consumption patterns or current costs of service. Additionally, tiered water rates and water allotments are highly litigious in California. Recent court cases such as *Patz v. City of San Diego* have handed down very specific requirements for cost-based tiered rates that likely apply to "free" water allotments. We will provide options to potentially phase-out or reduce the base allotment based on the results of our analysis. We are very familiar with this process, having recently completed water rate studies for the Cities of Kingsburg and Wasco, the Calaveras Public Utility District, and several districts served by Lake County to eliminate or reduce their base allotments.

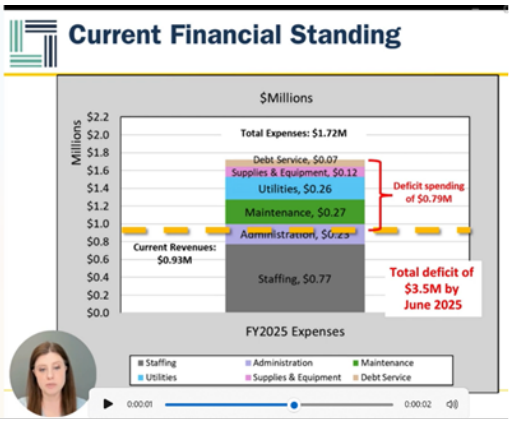
The current water rate structure bills all customers served by 1" up to 4" meters the same base charge. We understand that this rate structure was implemented because the District is heavily residential with minimal commercial customers. However, we understand that commercial development is likely over the next few years. To fairly recover costs, LTMC typically recommends individual fees by meter size (i.e. 1" rate, 1.5" rate, 2" rate, 4" rate, and 6" rate). This is industry typical and consistent with American Water Works Association recommendations.

Sewer Rates

The District currently bills the majority of customers a fixed charge that varies based on equivalent dwelling unit (EDU) assignments. OPUD's current rate study does not provide much detail regarding the assignment of EDUs to non-residential customers. To comply with Proposition 218, LTMC recommends that the study include a review of the District's current customer categories and the impacts of each on the system. We will fully document all underlying water usage, sewer flow, and pollutant estimates used to calculate the rates for each customer class.

Public Outreach

Under Proposition 218 procedural requirements, property owners can block rate increases via a majority protest. We will work with the District to gain an understanding of any objections to prior rate adjustments and develop a communication plan. LTMC will prepare clear, informative, and visually appealing public materials to support transparency and build support from ratepayers. These materials will be tailored for distribution through the District's website, printed handouts, presentation decks, mailers, etc. Typical public materials include Presentation Slides, Reports, Rate Surveys, Frequently Asked Questions (FAQs), Newsletters, and Notices of Public Hearing.



Recorded presentation with thumbnail overlay provided by LTMC for a social media posting.

SCOPE

TASKS

Provided below is our suggested scope of services based on our experience conducting similar studies. We are happy to adjust the scope to meet your needs.

Task 1 – Project Kickoff and Data Gathering

Kickoff Meeting
LTMC will conduct a kickoff meeting with District staff to review study goals, milestones, identify project team members, determine roles and responsibilities, and discuss data needs.

Data Gathering
Assemble the necessary data to complete the study. Wherever possible, LTMC will aggregate available information from the District's website and other public sources. The goal is to understand the District's financial standing, current rate structure, and utility billing information. A data needs list will be provided to the District prior to the kickoff call.

Task 2 – Financial Plan

Annual Revenue Requirements
With staff input, we will estimate future operating and capital expenditures to estimate annual revenue

needs. We will factor in projections of growth, repairs and replacements, cost escalation, water use, sewer flows, regulatory compliance, and operational changes to ensure that all future expenses are included. LTMC will work with the District to determine appropriate inflationary increases.

Review Reserve Fund Targets

This subtask involves reviewing the current operating and capital reserve balances for each utility and evaluating reserve targets for emergency reserves, rate stability reserves, long term capital reserves, short term capital reserves, or other categories as appropriate. At minimum, our analysis will review the age and condition of the systems, annual depreciation costs, and expenses related to emergencies.

Evaluate Debt Service Coverage

LTMC will review budgets, audits, and disclosure documents to understand current debt obligations. We will determine current coverage ratios based on net operating revenues compared to annual debt service expenses. We will also evaluate if the utilities have capacity to take on additional debt at the current revenues. Our final rate recommendations will include projections to meet coverage requirements in the years to come.

Review Capital Improvement Needs

Our cash flow analysis will isolate the impacts of capital funding separate from increases needed to fund other utility expenses. Typically, LTMC suggests three capital funding scenarios: 1) bare bones: fund only critical improvements, 2) priority funding: fund critical projects plus high-priority, level of service improvements, and 3) full funding: fund all proposed projects. We will work with the District to determine project affordability and adjust our rate recommendations accordingly. LTMC will review various financing options to fund capital needs, including pay-as-you-go/cash funding and other debt financing alternatives, such as State loans/grants, bank loans, and certificates of participation/bonds.

Cash Flow Projections

Annual revenue requirements and capital funding needs will be used to develop long-term cash flow projections summarizing the financial position of each utility over the next 5 years. The cash flow projections will estimate rate increases needed to meet annual revenue requirements, debt obligations, and reserve fund targets.

Sensitivity Analysis

Based on input from the project team, LTMC will incorporate rate sensitivity analysis to determine affordability. We will determine rate impacts under various scenarios, possibly including cash funding of projects, debt funding of projects, water cutbacks, increased regulatory costs, etc. Sensitivity analysis can often become an iterative process. LTMC is flexible to run additional scenarios as needed.

Task 3 – Cost Allocation

Evaluate Customer Billing Data
We will evaluate historical and current water consumption, wastewater flow, pollutant loading, and other billing data to estimate future water demands and sewer flows. For the water system, a key aspect of this task is to determine the amount of water use and revenue collected from meter charges and volume rates. For the sewer system, we will update the pollutant loadings and strength characteristics of each customer class to determine whether modifications are warranted.

Functionalize Costs
Functionalization is the allocation of expenses by major operating activities for the utilities, including water supply, peak pumping, treatment, storage, transmission, overhead, and administration. Sewer categories will consist of customer service, flow, BOD, and TSS to provide the District with a mass balanced rate structure.

Allocation to Customer Classes
After costs have been categorized by function, costs are then allocated to each customer class based on water demand and sewer flow and loading characteristics. The result produces revenue requirements for each customer class which can be recovered via fixed charges and usage rates. The allocation to customer classes will be based on American Water Works Association best practices and meet the proportionality requirements of Proposition 218.

Task 4 – Rate Design

Assess Current Rate Structure and Customer Classifications
Review the current rate structures and customer classifications to assess the advantages and disadvantages of the existing systems and to determine compliance with industry standards and court rulings. While compliance with Proposition 218 will guide all our recommendations, additional criteria may include: the impact on customer bills, public understanding, revenue stability, ease of implementation, compatibility with the existing billing system, and staff effort needed for administration.

Rate Alternatives
Based on the criteria developed with staff and the cost allocation, we will identify alternative rate structures or modifications to the current rate structure as appropriate. Our primary goal for this task is to update the District's rate structures to comply with new legal requirements.

For the water rates, LTMC will ensure that any tiered water rate options are cost-justified and based on the District's operation of the water system, cost of water supply, and consumption patterns. If tiered rates are not viable, LTMC will develop an appropriate uniform rate for all customer classes. We will also evaluate surcharges or other fees to fund capital improvements, regulatory requirements, and Sustainable Groundwater Management Act (SGMA) costs as needed.

For our sewer recommendations, we will fully document all underlying flow and pollutant estimates used in our analysis. We will evaluate whether any modifications to the rate structure such as the introduction of new customer classes is appropriate.

If modifications to the current rate structures are needed or desired, we will work with the project team to minimize the impact on ratepayers and clearly explain why the changes are needed. We will outline the advantages and disadvantages of each option. Additionally, we will take into consideration staff's time and capabilities to administer any changes and will ensure the District's billing system can accommodate proposed rate structure adjustments.

This task includes a legal review of current and proposed rate design alternatives. As needed, we will coordinate with legal counsel. For the final study, we will present rate structure options that both meet the District's needs and relevant legal requirements. LTMC will compare all our estimates and recommendations with those used by other local entities.

Survey of Local Rates

We will prepare a survey comparing the District's current and proposed residential utility bills to nearby agencies. The survey will be summarized in tables and charts that can be used for outreach, presentations, and the final report. We will also prepare bill comparisons for different customer classes if requested. The final list of surveyed agencies will be determined by the District.

Bill Impacts and Rate Affordability

Based on the recommended rates, calculate the bill impacts for a sample of typical customers including both residential and non-residential customer classifications. If needed, LTMC will develop an implementation plan to phase-in adjustments to ease the impact on customers.

Finalize Recommendations

Our final rate recommendations will include a five-year plan of proposed rates for each utility. The final plan will show projected monthly rates for each customer class for each year.

Task 5 – Draft & Final Reports

Submit a draft summary report for review and feedback. The report will summarize findings and recommendations and discuss key alternatives when applicable. We will then incorporate all staff comments and update recommendations accordingly. The final report will reflect input received from staff and the Board of Directors. Our reports are intended to serve as the administrative record and will be compliant with Propositions 218 and 26. All study materials including the draft and final reports will be submitted to the District in their native format (Word, PowerPoint, etc.) as well as PDF format. LTMC does not use any specialized software. This task includes drafting and submitting the Proposition 218 notice to OPUD.

Task 6 – Meetings, Presentations & Public Outreach

To begin the study, we will hold a virtual kickoff meeting with the District as described in Task 1. As needed throughout the study, LTMC proposes to conduct virtual meetings with the project team to review progress, answer questions, and revise the calculations. The next steps are to provide a presentation of our draft findings to the District's Board of Directors, revise our recommendations as needed, and provide a presentation of our final recommendations to the Board. We will also conduct one community outreach meeting to inform the public of proposed rate changes. Our final meeting will be to attend the Proposition 218 public hearing for rate adoption. Our project team will provide comprehensive meeting management including preparing agendas, printing handouts, and submitting meeting minutes and action items.

We understand that the District intends the Board presentations to be conducted virtually. LTMC is happy to conduct meetings in-person or virtually at OPUD's preference. In our experience, one or two in-person meetings are helpful to facilitate a back-and-forth dialogue with elected officials.

OPTIONAL Task 7 – Proposition 218 Assistance

LTMC will coordinate and conduct all deliverables associated with compliance with Proposition 218 including: aggregating the ratepayer and property owner mailing lists, translating the notice into Spanish, printing the notices, and certifying the mailing of the notices. If requested, LTMC will also draft additional outreach materials for customers such as newsletters and FAQs. We will coordinate with the District's legal counsel for review of all Proposition 218 materials.

DELIVERABLES

- Data request list
- Kickoff meeting
- Evaluation of customer characteristics including water use, sewer flow, and number of accounts
- 5-year cash flows with anticipated funding sources and cost recovery
- Debt coverage projection and future debt capacity
- Review of prudent reserves and recommended reserve fund levels
- Up to three (3) rate design alternatives for each utility
- Rate survey of local agencies
- Final 5-year recommendation of utility rates
- Preliminary and final drafts of the rate study report with printed copies provided
- Virtual progress meetings with staff; action items distributed to the project team
- Proposition 218 public notice; Spanish translation, and OPTIONAL printing and mailing of the notice
- Two (2) virtual Board meetings

RELATED PROJECT/CLIENT INFORMATION

Provided below are three detailed project references. LTMC Principal Alison Lechowicz served as project manager for all three assignments. Additional references can be provided upon request.

Linda County Water District

Water and Sewer Rate Study (2025)

Water and Sewer Connection Fee Study (ongoing)

Linda County Water District (District) provides water and sewer service to a population of over 20,000 via approximately 5,400 active service connections. The District is located in Yuba County and serves the unincorporated town of Linda. July 2025, LTMC submitted a final Water and Sewer Rate Study Report to the District. A successful Proposition 218 public hearing was held in October 2025. Alison Lechowicz served as project manager for the study and Sophia Mills served as financial analyst.

Brian Davis
General Manager
bdavis@lindawater.com
(530) 743-2043

Initial Fee for Rate Study Tasks: $37,920
Final Study Cost for Rate Study Tasks: $37,539

Connection fee study is ongoing. Total budget (rate study + connection fee study is $49,260)

The District last conducted a water rate study in 2019 and rate increases were adopted through 2023. Sewer rates had not been adjusted in 17 years, however, and the District's current sewer rate structure is atypical compared to industry standard practices. The focus of LTMC's rate study was to propose rate adjustments that keep up with inflationary cost increases and better align the District's rate structure with the cost of service.

For water rates, LTMC proposed only minor rate structure adjustments to align fixed fees and volume rates with recent water consumption trends based on a detailed review of the District's water billing data. For the sewer utility, LTMC proposed a new sewer rate structure that will add a new category for multi-family residential customers and redesign the non-residential sewer rates to recover costs in a manner that is more proportional to how customers use the sewer system. We consolidated the District's seven commercial customer classes into three classes: low strength, medium strength, and high strength. LTMC also restructured commercial sewer rates such that the minimum fee is reflective of the typical flow of a small business and larger businesses will pay proportionally higher rates from excessive flow charges.

LTMC is also currently engaged to update the District's water and sewer connection fees.

City of Live Oak

Water Rate Study (2025)

The City of Live Oak is a rural community located in northern Sutter County along the Highway 99 corridor between Yuba City and Chico. The City provides water service to about 2,500 accounts consisting primarily of single family residential homes. In 2025, LTMC completed a Water Rate Study for the City. A successful Proposition 218 hearing was held in May 2025.

The City had not raised water rates for at least 15 years, and as a result, the Water Fund was in poor financial condition. The Water Fund has been operating in a deficit for many years, and the City has exhausted its Water Fund reserves, forcing it to draw upon other City funds to cover water utility costs. The primary goal of LTMC's Water Rate Study was to reverse the deficit such that revenues are adequate to cover operating costs. To mitigate rate impacts to customers to the extent possible while balancing the need to reverse the Water Fund's deficit, LTMC proposed a phase-in of rate increases that is projected to improve the Water Fund's financial health over three years. From year three of the rate plan onward, the Water Fund will begin to repay its prior negative fund balance.

Another critical component of the rate study was to revise the City's rate structure to recover costs more fairly from customers. The City's old rate structure included an allotment of water use that began at 20 hundred cubic feet per month for most customers with larger allotments for customers with larger meter sizes. LTMC proposed an updated rate structure which eliminated the water allotment for all customers. This change aligns with the Proposition 218 requirement that utility rates be proportional to how customers take service.

LTMC also provided comprehensive customer outreach to support our Water Rate Study for the City. We drafted Proposition 218 mailers and had them translated into two additional languages. LTMC conducted a well-attended ratepayer outreach meeting. We also recorded an outreach video for the City's website and advised the City regarding social media posts.

James Ramsey
Former Finance Director
jramsey@eidebailly.com
(916) 999-8511

Initial Fee: $35,720
Final Study Cost: $28,116

City of Anderson

Water Rate Studies (2021 & 2024)
Wastewater Rate Study (2025)

Located in Shasta County, the City of Anderson provides water and wastewater service to about 3,600 customers. LTMC has been engaged by the City to complete multiple rate studies including two water rate studies and one wastewater rate study. In 2021, LTMC completed our first water rate study for the City. The last water rate study had been conducted over 10 years prior to LTMC's work, and the Water Fund was operating in a deficit. Without rate increases, it was anticipated that the water utility's reserves would be depleted by 2024.

To minimize the impact on customers, the City restricted planned capital projects to the bare minimum for maintenance and operations. Projects for upgrades or expansion were not included. After a comprehensive review of the operating budget and capital plan, LTMC proposed 5 percent annual rate increases to cover the operating deficit and to meet reserve fund targets. The City also wanted to maintain the current rate structure to mitigate bill impacts. To comply with Proposition 218, LTMC completed a cost of service analysis using the Base-Extra Capacity method and applied updated meter capacity ratios to develop a cost basis for the current rate structure. LTMC also reviewed the rates for customers located outside of the City and developed a cost basis for the increased rates.

In August 2023, LTMC was re-engaged by the City to provide an update of the Water Rate Study. The City had a renewed interest and political willingness to increase rates to fund a higher level of capital improvements than were included in the 2021 Water Rate Study. LTMC worked with the City to evaluate rates to fund these needs.

In 2025, LTMC was engaged to complete a Wastewater Rate Study for the City. The City's last comprehensive sewer rate study had been conducted over 20 years ago. Since that time, the City had implemented minor, inflationary increases only five times, with the last rate increase going into effect ten years prior in 2015. Since then, the City's cost to operate the Wastewater Fund had continued to increase, resulting in an operating deficit and ongoing depletion of reserves. Additionally, the City faces the financial challenge of needing to replace substantial portions of the aging wastewater treatment, collection, and disposal systems. As part of the wastewater rate study, LTMC reviewed winter water usage statistics to determine typical sewer flows as well as revised the assignment of equivalent dwelling units to each customer class.

Peter Wickenheiser
Engineering Services Manager
pwickenheiser@ci.anderson.ca.us
(530) 378-6641

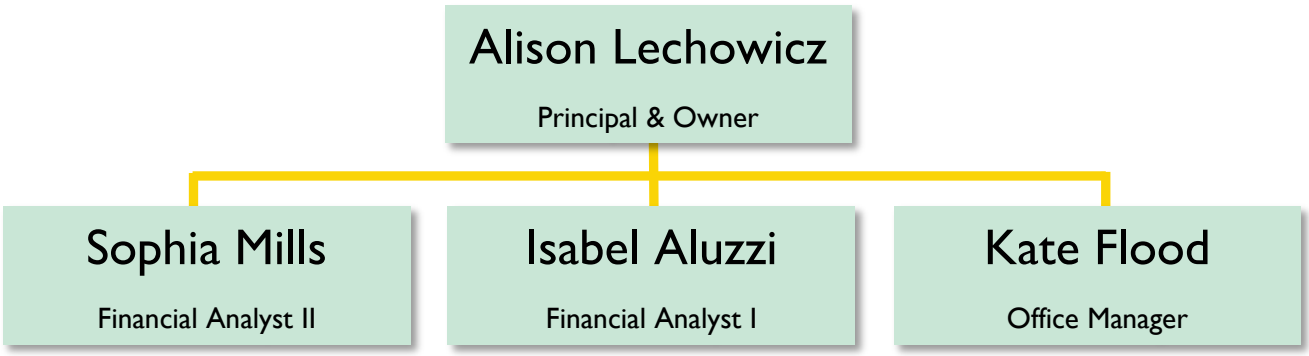
2021 Water Rate Study
Initial Fee: $39,825
Final Study Cost: $37,138

2024 Water Rate Study
Initial Fee: $27,270
Final Study Cost: $21,431

2025 Sewer Rate Study
Initial Fee: $25,500
Final Study Cost: $25,487

STAFF EXPERIENCE & PROJECT ORGANIZATION

ORGANIZATIONAL CHART



PROJECT TEAM

Alison Lechowicz will serve as Principal-in-Charge, overseeing project management and acting as the main contact. Sophia Mills will provide peer review, while Isabel Aluzzi will serve as financial analyst. Resumes are attached in the appendices.

Alison Lechowicz — PROJECT MANAGER, LEAD FINANCIAL ANALYST

QUALIFICATIONS

- ✓ 19 years consulting experience
- ✓ Master of Public Administration
- ✓ Testified as an expert witness at the CA Public Utilities Commission

RESPONSIBILITIES

- Financing alternatives and cash flow projection
- Rate recommendations
- Public presentations

Sophia Mills — PEER REVIEW

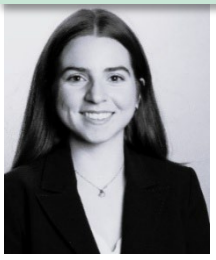
QUALIFICATIONS

- ✓ 6 years consulting experience
- ✓ Bachelor of Economics and Bachelor of Spanish
- ✓ Fluent in Spanish
- ✓ Specializes in financial modeling

RESPONSIBILITIES

- Methodological Review
- Review of draft and final reports
- Substitute as needed
- Spanish translations

Isabel Aluzzi — FINANCIAL ANALYST



QUALIFICATIONS

- ✓ Master of Business Management
- ✓ Local government experience

RESPONSIBILITIES

- Data gathering
- Financial modeling
- Draft and final report

STAFF ALLOCATION

Provided below is our staff allocation by task. LTMC has the staffing resources available to meet the proposed schedule listed below. We will dedicate the time and effort needed to provide a high-quality rate study and to complete any additional tasks requested by OPUD.

PROJECT TASKS	HOURS			
	Lechowicz	Mills	Aluzzi	Total
	Project Mgr	Financial Analyst II	Financial Analyst I	
	$250/hour	$170/hour	$130/hour	
1. Kickoff & Data Gathering	10	4	16	30
2. Financial Plan	30	16	24	70
3. Cost Allocation	24	12	28	64
4. Rate Design	28	12	20	60
5. Draft & Final Reports	22	24	28	74
6. Meetings & Outreach	20	2	12	34
TOTAL PROJECT	**134**	**70**	**128**	**332**
% of Total Hours	*40.4%*	*21.1%*	*38.6%*	*100.0%*

PROJECT SCHEDULE

Provided below is LTMC's draft schedule for the rate study. We are flexible to adjust the schedule as needed. We understand that OPUD wishes to approve new rates between June and September 2027 so that new rates can go into effect January 2028.

Milestone	Date	Description
Project Kickoff	July 2026	Kickoff meeting with the Project Team; data gathering
Intermediate Drafts	July 2026 to January 2027	Analyze data and review intermediate drafts with the Project Team
Draft Rate Study Report	January 2027	Submit the Draft Rate Study Report for internal review
Final Rate Study Report	March 2027	Submit the Final Rate Study Report, Proposition 218 notice, and outreach documents for publication
Prop 218 Notification	April 2027	The Proposition 218 notice of public hearing is mailed to all property owners and ratepayers
Public Hearing	June 2027	Conduct the Proposition 218 public hearing, tabulate the protest, and certify the results
Rate Implementation	January 2028	Absent a majority protest, new rates go into effect

EXCEPTIONS

LTMC does not have any exceptions to the RFP.

APPENDIX – RESUMES

Alison Lechowicz

alison@LTmuniconsultants.com

(510) 545-3182 (office)
(209) 747-3106 (cell)

909 Marina Village Parkway #135
Alameda, CA 94501

EXPERIENCE

- 19 years consulting experience: 9 years Co-founder and Principal at LT Municipal Consultants, 7 years as Principal and Financial Analyst at Bartle Wells Associates, 3 years as Financial Analyst at Carollo Engineers
- Testified as an expert witness at the CA Public Utilities Commission in electric rate cases of Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric

EDUCATION

- **Columbia University**
  Master of Public Administration
- **University of California, Berkeley**
  Bachelor of Science
  Conservation & Resource Studies

REPRESENTATIVE ASSIGNMENTS

City of Live Oak (Sutter County): Completed a contentious water rate study for the City. The City had not increased rates in 15 years and was facing significant financial hardship. Conducted outreach to the community, recorded a social media video, and had the Proposition 218 notice translated into two languages.

Linda County Water District (Yuba County): Currently conducting a water and sewer rate and connection fee study for the District. Working to modernize the District's sewer rate structure to be more proportional and in-line with industry standard practice. Also updated the water rates to keep up with inflationary cost increases and prudently use reserves to fund capital projects.

Butte Water District (Butte & Sutter Counties): Developed a financial plan with revenue recovery from standby fees (assessments), water delivery charges, and groundwater recharge fees. Conducted the printing and mailing of outreach materials.

City of Waterford (Stanislaus County): Completed sewer rate studies in 2019 and 2024. Reviewed alternative rate structures such as volume/flow-based billing. Ultimately, assigned fixed rates to customers based on class average flows and pollutant loading.

Graton Community Services District (Sonoma County): The District had not raised sewer rates in over 10 years and revenues had fallen behind the cost of service. Reviewed detailed property records and provided new multifamily sewer rate options to better comply with legal requirements.

Sophia Mills

sophia@LTmuniconsultants.com

(510) 529-8056

909 Marina Village Parkway #135
Alameda, CA 94501

EXPERIENCE

- 6 years at LT Municipal Consultants

EDUCATION

- **Davidson College**
  Bachelor of Arts
  Economics, Spanish

OTHER SKILLS

- Fluent in Spanish

REPRESENTATIVE ASSIGNMENTS

Town of Discovery Bay CSD (Contra Costa County): Water and sewer rate study. Assisted the Town in rate updates to accommodate new wastewater regulatory requirements and capital project funding. Also completed a water and sewer capacity fee study.

City of Gonzales (Monterey County): Conducted a water and sewer rate study with a focus on industrial customers who use the majority of water in the City. Also completed a technical memorandum documenting best practices for addressing industrial wastewater permit violations.

City of Rio Dell (Humboldt County): Conducted a water and sewer rate study to fund mandated capital projects and eliminate operating deficit. Analyzed impacts of alternative rate structures for each utility.

Terra Bella SMD (Tulare County): Sewer Rate Study. Rates had not been adjusted in over two decades and a comprehensive analysis was needed to review the cost allocation between customer classes and fund deferred maintenance.

City of Brisbane (San Mateo County): Conducted a water and sewer rate study. The City had not done a comprehensive cost of service analysis since 2001. The update simplified the water and sewer rate structures to reflect actual costs.

City of Wasco (Kern County): Completed a water and sewer rate study. Designed a new water rate structure and documented sewer flow and loading assumptions as the basis of the sewer rates.

Isabel Aluzzi

isabel@LTmuniconsultants.com

(925) 784-6476

909 Marina Village Parkway #135
Alameda, CA 94501

EXPERIENCE

- City of Phoenix Summer Finance Intern: Prepared standard operating procedures for the Treasury department for standardized reporting. Worked with Investment Operations team to forecast cash flow needs and make investments. Assisted in preparation of debt service reports.
- Certifications:
  - Advanced Excel (Wall Street Prep)
  - Financial Accounting (Harvard Business Publishing)

EDUCATION

- **Thunderbird School of Global Management**
  Master of Business Management
- **Arizona State University**
  Bachelor of Business Management

REPRESENTATIVE ASSIGNMENTS

Heber PUD (Imperial County): Currently conducting a water and sewer rate study for the District. Updating water and sewer rate structures by eliminating allotment included in water base fee and billing sewer customers by customer type.

Bear Valley CSD (Kern County): Water, Sewer, and Solid Waste Study. Assisting the District in designing a new water and sewer rate structures to cover operating costs and fund needed maintenance and repairs on the District's water and sewer systems.

City of Ridgecrest (Kern County): Sewer rate study for the City. Analyzing the City's sewer operating and capital costs, to ensure sufficient revenue for ongoing operations and the planned construction of a new wastewater treatment plant. Also accounting for the City's largest customer, the nearby Navy base, whose rate is composed of different operating costs than other customers.

City of Westmorland (Imperial County): Currently conducting a water and sewer rate study to support the City's financial assistance package for state funding. Transitioning the City from unmetered to metered water rates and from fixed rates to fixed + flow rates for commercial customers.

Mokelumne Hill Sanitary District (Calaveras County): Sewer rate study for the District to provide an update to current rate structure, provide compliance with legal requirements, and ensure that the District is self-sufficient. The District last completed a rate study in 2012.

City of Scotts Valley (Santa Cruz County): Assisting the City in a Sewer rate study. Transitioning rate structure to fixed charges based on customer type to be billed through the County tax roll.

THANK YOU

909 Marina Village Parkway #135 | Alameda, CA 94501 | (510) 545-3182 | www.ltmuniconsultants.com

RAFTELIS

Olivehurst Public Utilities District

Water and Sewer Rates for Prop 218 Study

PROPOSAL / MAY 22, 2026

RAFTELIS

May 22, 2026

Swarnjit Boyal
Public Works Manager
Olivehurst Public Utilities District
1970 9th Avenue
Olivehurst, CA 95961

Subject: Proposal for Water and Sewer Rates for Prop 218 Study

Dear Mr. Boyal:

Thank you for the opportunity to submit this proposal to assist the Olivehurst Public Utilities District (District) with your "Water and Sewer Rates for Prop 218 Study." This proposal details our project approach and why we believe that our firm can provide superior service to the District. Key factors that make Raftelis your best choice for the project include:

California Water and Sewer Utility Expertise
There are very few highly qualified utility rate consulting firms in the United States. Among this group, no other firm has as much experience as Raftelis. We have assisted hundreds of California water and sewer utilities on financial consulting assignments since our founding in 1993. Our key area of specialization is the completion of water and sewer utility cost-of-service studies using industry standard methodologies. We are experts at the development of water and sewer utility financial plans, cost allocations, and rate designs.

Proposition 218 Expertise
Municipal utility rates in California are governed by Proposition 218. Raftelis has successfully completed COS studies for utilities across California with our recommendations being readily adopted and successfully implemented. Many of our clients are represented by leading regulatory attorneys. As a result, we are familiar with the ramifications of recent Proposition 218. We understand the requirements and intricacies of Proposition 218 and will draw on this understanding throughout the COS study process.

Unparalleled Staff Resources and Highly Experienced Project Team
We've created a team of the industry's finest rate consultants, affordability experts, strategic communicators, and data wizards. Although Raftelis has grown over the past few years, we remain committed to recruiting top talent and to matching new talent with the projects for which they are best suited. This commitment is exemplified by our highly experienced project team composed of:

- Project Director: John Mastracchio, ASA, CFA, PE
- Project Manager: Angie Flores
- Assistant Project Manager and Technical Lead: John Wright, CPA
- Lead Consultant, Summer Simpson

Industry Leadership
We continue to be the industry leader in utility rate studies because of our passion for client satisfaction. Members of the Raftelis staff, including John Masstrachio, our Project Director and John Wright, our Assistant Project Manager, are contributing authors to the American Water Works Association (AWWA)

publication, *Manual of Water Supply Practices M1, Principles of the Water Rates, Fees, and Charges* and the Water Environment Federation (WEF) publication, *Manual of Practice No. 27, Financing and Charges for Wastewater Systems*.

We are proud of the resources that we can offer the District. If you have any questions about our proposal, please do not hesitate to contact me at 512.790.2108 or aflores@raftelis.com.

Sincerely,

Angie Flores

Angie Flores
Vice President

Mailing Address: 3755 S. Capital of Texas Highway, Building 1, Suite 245, Austin, TX 78704
Firm Name: Raftelis Financial Consultants, Inc. (DBA Raftelis)

RAFTELIS CHARITABLE GIFT FUND

Giving back

The Raftelis Charitable Gift Fund seeks to make a difference on issues that matter to our clients and employees by helping build sustainable, inclusive communities locally and worldwide. We do this by allocating company profits and employee contributions of time and money. We support organizations that:

- Promote efficient, sustainable resource use
- Advance diversity, equity, and inclusion within the public sector
- Invest in access to clean water and sanitation
- Help vulnerable communities by addressing affordability issues

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REGISTERED MUNICIPAL ADVISOR

Raftelis is registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor.

Registration as a Municipal Advisor is a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. All firms that provide financial forecasts that include assumptions about the size, timing, and terms for possible future debt issues, as well as debt issuance support services for specific proposed bond issues, including bond feasibility studies and coverage forecasts, must be registered with the SEC and MSRB to legally provide financial opinions and advice. Raftelis' registration as a Municipal Advisor means our clients can be confident that Raftelis is fully qualified and capable of providing financial advice related to all aspects of financial planning in compliance with the applicable regulations of the SEC and the MSRB.

Table of Contents

CONSULTANT IDENTIFICATION AND QUALIFICATIONS

Consultant Identification and Qualifications

HELPING LOCAL GOVERNMENT UTILITIES THRIVE

Local government utilities partner with Raftelis to transform their organizations by enhancing performance, planning for the future, identifying top talent, improving their financial condition, and telling their story. We've helped more than 850 organizations in the last year alone.

Firm Information

Legal Firm Name: Raftelis Financial Consultants, Inc. (DBA Raftelis)

Firm Mailing and Physical Address: 227 W. Trade Street, Suite 1400, Charlotte, NC 28202 (Headquarters)

Legally Responsible Principal: Angie Flores, Vice President, E: aflores@raftelis.com, P: 512.790.2108

Primary Contact Person: Angie Flores, Vice President, E: aflores@raftelis.com, P: 512.790.2108

We believe that Raftelis is the *right fit* for this project. We provide several key factors that will benefit the District and help to make this project a success.

RESOURCES & EXPERTISE: Specialized and highly experienced utility rate consultants that all stakeholders can have confidence in. With more than 190 consultants, Raftelis has the largest water-industry financial and rate consulting practice in the nation. Our depth of resources will allow us to provide the District with the technical expertise necessary to meet your objectives. In addition to having many of the industry's leading rate consultants, we also have experts in key related areas, like stakeholder engagement and data analytics, to provide additional insights as needed.

DEFENSIBLE RECOMMENDATIONS: Industry knowledge to ensure methodologies reflect best practices. Our senior staff is involved in shaping industry standards by chairing various committees within the AWWA and the WEF. Raftelis' staff members have also co-authored many industry-standard books regarding utility finance and rate setting. Being so actively involved in the industry will allow us to keep the District informed of emerging trends and issues and to be confident that our recommendations are insightful and founded on sound industry principles. In addition, with Raftelis' registration as a Municipal Advisor, you can be confident that we are fully qualified and capable of providing financial advice related to all aspects of utility financial planning in compliance with federal regulations.

USER-FRIENDLY MODELING: Powerful and easy-to-use tools for ongoing financial management success. Raftelis has developed some of the most sophisticated yet user-friendly financial/rate models available in the industry. Our models are tools that allow us to examine different policy options and cost allocations and their financial/customer impacts in real time. Our models are non-proprietary and are developed with the expectation that they will be used by the client as a financial planning tool long after the project is complete.

EXPERTS ON CALIFORNIA REGULATORY REQUIREMENTS: This expertise will allow the District to be confident our recommendations reflect all relevant regulatory requirements. The regulatory environment in California has become more stringent due to Proposition 218. Besides developing well-thought-out financial plans, Raftelis staff members are very knowledgeable about these regulations and have made presentations on this subject at various industry conferences. In addition, we are frequently called on to be expert witnesses regarding these regulatory matters.

Project Understanding and Approach

Task 1: Project Initiation, Management, and Kick-Off

Task 1.1: Initial Data Request and Data Review

Upon receiving the notice to proceed, Raftelis will submit a comprehensive data request to the District seeking information such as that listed below. To the extent possible, we will review the information provided prior to the project kickoff meeting.

- Customer billing data (Microsoft Excel)
- Current and proposed revenue and expenditure budgets (Microsoft Excel)
- CIP projections based on the District's most recent water and sewer utility engineering master plans
- Groundwater production and sewer treatment plant influent data (Microsoft Excel)
- If available, the District's 2025 Urban Water Management Plan (PDF)

Task 1.2: Project Kick-off Meeting

A single kickoff meeting will be held for the water and sewer utility COS studies. Our proposed consulting fee assumes that the kickoff meeting will be held on a virtual basis to reduce project costs. Topics of discussion will include:

- Information on the operations of each utility including:
    - Customer demographics, consumption characteristics, and land-use patterns
    - Projected capital expenditures for the water and sewer utility systems as developed in the master planning process
    - Rate structure concerns and pricing objectives
    - Utility financial policies
    - Legal/regulatory issues
    - Key District Board and external stakeholder concerns/perspectives
- Confirmation of project objectives, deliverables, and schedule
- District and Raftelis points of contact and communications protocols

Task 1.3: Project Management

- Timely identification of project issues/challenges as they arise during the project
- Bi-weekly project check-in meetings
- On-going model QA/QC by the Project Manager

DELIVERABLES:

- Pre-kick-off meeting data request
- Virtual kick-off meeting
- Kick-off meeting agenda and meeting minutes
- Project schedule with key milestones within two weeks after the kick-off meeting

Task 2: Analysis of Customer Demand Characteristics and Demand Forecasting

Understanding customer water and sewer demand characteristics and developing a realistic forecast of future demand growth is a critical first step in the rate study process.

Task 2.1: Analysis of Water and Sewer Customer Demand

The analysis of customer billed water consumption and estimated sewer discharges is critical to developing the demand forecast that underlies the financial planning, cost-of-service analysis, and rate structure design. After obtaining the District's actual historical customer billing data for the period FY 2023 - FY 2024 and FY 2024 - FY 2025, Raftelis will seek to analyze the following types of information for each major customer type/land use:

- Account growth by land use type and meter size
- Monthly, seasonal, and annual consumption by land use type and meter size
- The relationship between billed water consumption and sewer treatment plant influent volumes
- Average day, maximum day, and maximum hour consumption
- Winter average consumption as a proxy for indoor consumption
- Estimates of indoor and outdoor consumption on a per account and gallons per capita day (GPCD) basis
- Historical consumption declines during drought stage emergencies

Task 2.2: Demand Forecasting

Raftelis will prepare comprehensive demand forecasts for the water and sewer utilities for the 10-year period FY 2027-2028 through FY 2036-FY 2037. It will be developed using Microsoft Excel to allow for scenario modeling by District staff.

DELIVERABLES:

- Detailed understanding of customer billed water consumption and estimated sewer discharges
- Forecast of billed water consumption for the 10-year period FY 2027-2028 through FY 2036-2037
- Estimate of sewer discharges for the 10-year period FY 2027-2028 through FY 2036-2037

Task 3: Financial Planning and Revenue Requirement Forecasting

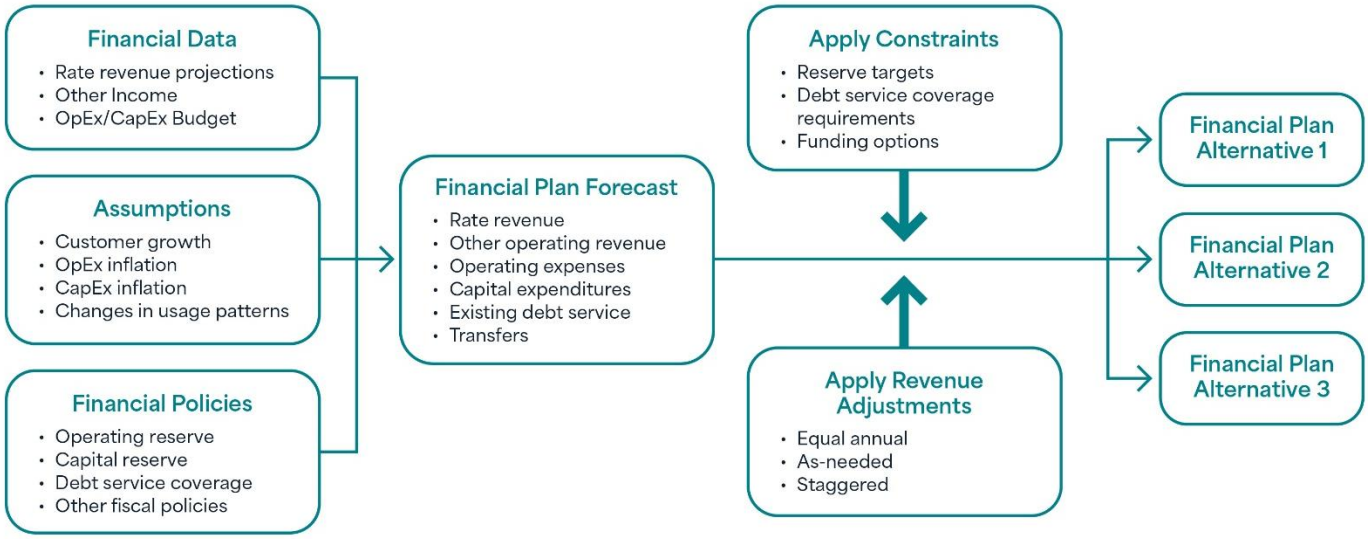
Separate financial plans will be developed for the District's water and sewer utilities. They will be developed in Microsoft Excel and feature variable input assumptions to allow for scenario planning by District Staff.

Task 3.1: Raftelis Approach to the Financial Planning Process

Utility financial planning is an iterative process in which the "optimal" capital financing strategy must be identified. This requires achieving the correct balance between CIP financing provided by rate revenues, capacity fees, grants, and external debt financing. A comprehensive and correctly developed financial plan must be based on a realistic projection of customer water and sewer demands under normalized climate conditions and reasonable assumptions of customer account growth. The Microsoft Excel financial planning models developed by Raftelis will allow District staff to vary inputs for items such as customer account growth, average billed water consumption per account, average contributed sewer discharges per account, CIP expenditures and financing strategies, operating expenses, inflation rates, etc.

Figure 1 illustrates the financial planning process that will be used by Raftelis for each of the District's utility services.

Figure 1: Financial Planning Process



Task 3.2: Review and Evaluation of District Financial Policies

Raftelis will review, and as appropriate, make recommendations regarding the Environmental Utilities' financial policies. These policies will include items such as your minimum and maximum cash reserve targets, the use of external debt financing for repair and replacement versus growth-related CIP projects, and the appropriate target debt service coverage ratios for senior and subordinated debt.

Task 3.3: Comprehensive Cash Flow Projection and Revenue Requirement Forecasting

10-year financial plans for the period FY 2027-2028 through FY 2036-2037 will be developed. The 10-year financial plans will allow the District to assess its financial position in years 6-10 of the planning horizon when long-term changes may take place in customer demand characteristics, water supply costs, regulatory requirements, etc. The financial planning models will include:

- ***Revenue Under Existing Rates***: A projection of rate revenues generated under existing rates based on the updated demand forecast completed in Task 2. The projection will include billed consumption, and estimated sewer discharges.
- ***Operations and Maintenance Expenses (O&M):*** O&M expenses including inflation adjustments and potential changes in the profile of O&M activities caused by system technological changes
- ***Potential Pass-Through Costs***: The identification of on-going costs that are not under District control and thus potentially appropriate for recovery via a "pass through" adjustment (e.g., water supply costs and electric power)
- ***Debt Service***: Existing and projected debt service expenditures used for CIP funding, pension obligation funding, etc.
- ***CIP Expenditures***: All CIP expenditures, regardless of funding source, developed as part of the water and sewer master planning process and the District's long-term CIP plan.

Task 3.4: Scenario Analysis - Financial Plan Optimization

- ***Optimal Financing Strategy Development***: The objective of the financial planning process is to develop an optimal financing strategy that provides for utility revenue sufficiency and stability while, to the maximum extent possible, resulting in small, smooth, and predictable annual rate increases. Development of the optimal financing strategy requires scenario analysis that models required rate increase under different utility sales for each service, CIP expenditure, and debt service alternatives. It includes the modeling of projected cash reserve and debt service coverage for each year of the planning horizon. Three financial planning scenarios will be developed:
    - ***"Do Nothing" Scenario:*** Comprehensive financial plans that assume no rate increases over the 10-year financial planning horizon.

- ***"Rates Only" Scenario***: Comprehensive financial plans that assume that all capital improvement project costs will be paid by operational cash flows from rates over the 10-year planning horizon.
- ***Optimal Capital Financing Scenario***: Development of an "optimal" capital financing strategy that balances the projected mix of rate revenues, capacity fees, grants, and external debt funding to fund capital improvements.

Task 3.5: Revenue Requirement and 10-Year Rate Projection

- Based on the optimal financial planning scenarios developed in Task 3.4, Raftelis will project, for the water and sewer utilities, a total system revenue requirement from rates for the 10-year period FY 2027-2028 through FY 2036-2037. A 10-year forecast of rates will also be developed.

DELIVERABLES:

- Development of the optimal water and sewer financial planning scenarios in consultation with District staff
- Water and sewer financial plans and revenue requirement forecasts for the 10-year period FY 2027-2028 and FY 2036-2037
- Potential recommendations for changes in financial policies

Task 4: Cost-of-Service Analysis

Separate cost-of-service studies will be developed for the District's water and sewer utilities.

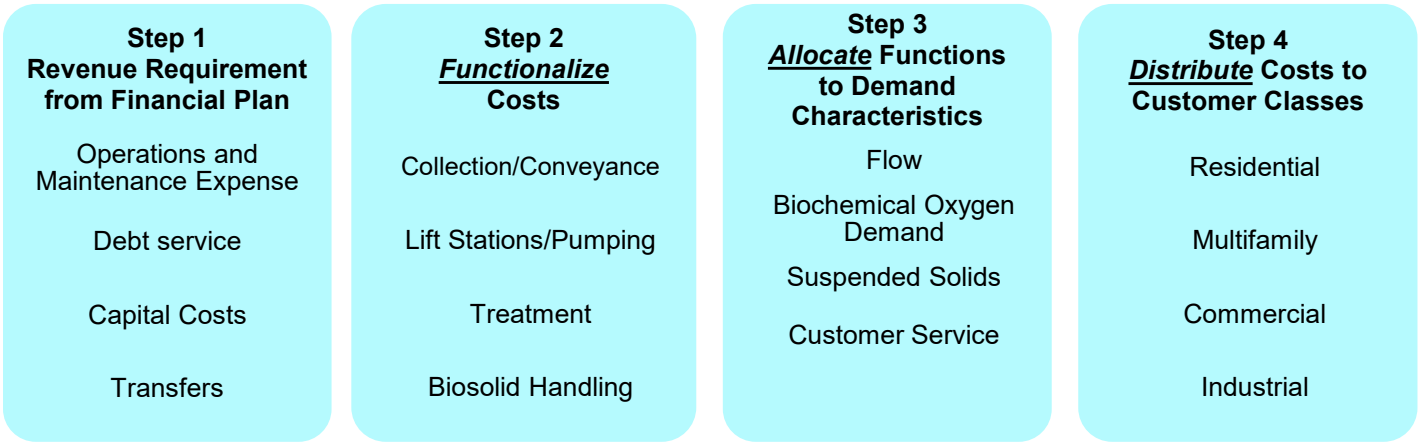
Task 4.1: Raftelis General Approach to the Cost-of-service Process

The procedures used by Raftelis in water and sewer cost-of-service studies are based on industry standard methods presented in AWWA's *Manual of Water Supply Practices M1, Principles of Water, Rates, Fees, and Charges* and WEF's *Manual of Practice No. 27, Financing and Charges for Wastewater Systems*. The use of industry-standard procedures corresponds to the cost-of-service mandate contained in California Proposition 218. Figure 2 illustrates the multi-step cost allocation process used by Raftelis for many water COS studies.

Figure 2: Commonly Used Water Cost-of-Service Process

Figure 3 illustrates the multi-step cost allocation process used by Raftelis for many sewer COS studies.

Figure 3: Commonly Used Sewer Cost-of-service Process



Task 4.2: Water and Sewer Cost-of-Service Analyses

- ***Test-Year Revenue Requirement***: Determination of the test year revenue requirement based on the Task 3 financial planning process
- ***Cost Functionalization***: Assignment of test-year capital costs (PAYGO financing and projected debt service), O&M expenses, and non-rate revenue offsets to the correct functional categories. This process identifies the specific functions being paid for in the annual revenue requirement from rates.
- ***Allocation to Cost Causation Components***: Allocation of test-year capital costs, O&M expenses, and non-rate revenue offsets to the correct cost causation components. For a water utility, common cost causation components are water supply, base demand, maximum day demand, maximum hour demand, billing, and customer service. Common sewer utility cost causation components include flow, biochemical oxygen demand, and suspended solids. This process identifies the specific types of customer demand being paid for in the annual revenue requirement from rates.
- ***Customer Class Units of Service***: Determination of the customer class units of service. For a water utility, units of service often include customer class average day demands, peak demands, number of bills, and number of 3/4" or 1" meter equivalents. For a sewer utility, units of service include volume of flows and pounds of biochemical oxygen demand and pounds of suspended solids.
- ***Customer Class Cost of Service***: Distribution of the allocated test-year capital costs, O&M expenses, and non-rate revenue offsets to customer classes based on each of their proportionate share of demands, bills, and equivalent meters.

DELIVERABLES:

- Water customer class cost-of-service and the identification of fixed and variable costs
- Sewer customer class cost-of-service and the identification of fixed and variable costs

Task 5: Rate Structure Design and Proposed Rates

Task 5.1: Current Water and Sewer Rates

The District's current water rates are presented below. As part of the water rate design process we will do the following:

- Develop fixed monthly charges for individual meter sizes (1", 1-1/2", 2", 3", and 4").
- Analyze the appropriateness of the 6 CCF allocation of water included in the fixed monthly charge
- Analyze the appropriateness of maintaining a uniform water rate structure without customer classes
- Determine the appropriateness of the monthly charge for flat rate accounts

Water Charges/Rates	Jan 1, 2026	Jan 1, 2027
Metered Rate Accounts		
3/4" Meter		
Fixed Monthly Charge	$23.71	$24.90
Water Included in Fixed Monthly Charge	6 ccf	6 ccf
Water Consumption Charge per CCF (> 6 ccf)	$2.37	$2.49
1" – 4" Meters		
Fixed Monthly Charge	$39.51	$41.49
Water Included in Fixed Monthly Charge	10 ccf	10 ccf
Water Consumption Charge per CCF (> 6 ccf)	$2.37	$2.49
Flat Rate Accounts		
Fixed Monthly Charge		
3/4" Service	$56.89	$59.73
1" Service	$91.65	$96.23

The District's current sewer rates are as follows.

Sewer Charges/Rates	Jan 1, 2026	Jan 1, 2027
Monthly Sewer Service Charges		
Residential (per Dwelling Unit)	$48.00	$50.00
Commercial (per EDU)	$48.00	$50.00
School (per EDU)	$48.00	$50.00

Task 5.2: Development of Proposed Rates

After the completion of the cost-of-service analyses described in Task 4, Raftelis will develop proposed water and sewer rates for FY 2027-2028 and FY 2028-2029 based on: 1) the District's current rate structures, and 2) a maximum of two potential alternative water structures and a maximum of one alternative sewer rate structure.

Any alternative rate structures evaluated by Raftelis will produce adequate revenues to maintain water and sewer utility financial sufficiency over short-, medium-, and long-term planning horizons. When considering potential alternative rate designs, Raftelis will perform the following analyses.

- ***District Rate Structure Objectives***: Evaluation of the effectiveness of the current water and sewer rate structures in achieving the District's financial and policy objectives
- ***Fixed vs. Volumetric Revenue Recovery***: Impact of potential alternative rate structures on utility revenue stability/volatility
- ***Customer Class Definitions***: Appropriateness of the current customer class definitions
- ***Proposition 218 Compliance***: Ability of alternative rate structures to fully comply with Proposition 218 and other applicable California regulatory requirements
- ***Customer Bill Impacts***: Impact of potential alternative rate structures on customer bills (monthly and annual) across a broad range of demand (i.e., very low consumption to very high consumption customers)
- ***Ease of Customer Understanding***: Ability of customers to easily understand potential alternative rate structures and the ability of the District to administer such alternatives

Task 5.3: Overarching Awareness of Proposition 218 Requirements

From the initial kickoff meeting through the development of proposed rates, we stay focused on the need to comply with the intent and requirements of Proposition 218. Throughout the financial planning, cost allocation, and rate design process we will work with District staff and legal counsel to help achieve this objective. While we strive to comply with

the intent and requirements of Proposition 218, it is important to note the Raftelis shall have no obligation to indemnify the District or any Indemnitee against liability for claims by a third party for failure to comply with its obligations under Article XIII D of the California Constitution (Proposition 218).

Task 5.4: Comprehensive Bill Impact Calculations

Raftelis will calculate comprehensive bill impacts for the District's existing and proposed water and sewer rates. Bill impacts will be calculated for multiple customer land use types and across a wide distribution of monthly and annual consumption volumes. This will ensure that District staff is fully informed about potential customer bill ramifications.

DELIVERABLES:

- Proposed 5-year water and sewer rates for the period FY 2027-2028 and FY 2031-2032
- A 10-year projection of water and sewer rates for the period FY 2027-2028 through FY 2036-2037
- The consideration of potential modifications to the District's existing water and sewer rate structures
- Comprehensive customer bill impacts

Task 6: Rate Model Development

Raftelis will develop a Microsoft Excel financial model with a user friendly dashboard that can be used by District staff for scenario planning. The financial model must have the following capabilities:

- Ability to automatically produce a suite of reports and graphs based on dashboard inputs
- Model training for District staff that will allow staff to run alternative financial scenarios

During the project, District staff will be provided with working copies of draft financial models so they can provide input into the development of the model. Once the project is complete, the District will be provided with fully functioning copies of the model.

DELIVERABLES:

- A Microsoft Excel financial model designed to the District's specifications

Raftelis will develop a customized financial model that incorporates a dashboard to allow you to easily run scenarios and see the impacts in real time. Shown here is a sample dashboard that we developed for another project.

Task 7: Cost-of-Service Study Report

Raftelis will prepare a single consolidated report that describes the water and sewer rate studies. Our approach to the development of cost-of-service study reports includes:

- ***Creation of a Detailed Administrative Record***: Raftelis prepares comprehensive rate study reports that fully document the assumptions, inputs, and analytical procedures used to develop proposed rates. Our reports provide clients with a detailed administrative record that can be referenced if rates are questioned or challenged in litigation.
- ***Collaboration with Legal Counsel***: Maintaining a close partnership with District legal counsel throughout the rate study process is a priority. As complex, and potentially controversial, cost allocation or rate design cost recovery issues arise during the rate study process, we will request review and input from the District's legal counsel.
- ***Review and Comment by the District***: Raftelis welcomes the comprehensive review and comment of preliminary/draft reports by District staff, District legal counsel, and the Board of Directors.

DELIVERABLES:

- Draft cost-of-service rate study reports for review by District Staff and Board of Directors
- Final cost-of-service rate study report

Task 8: Meetings and Presentations

Our proposed consulting fee includes the cost of one virtual kick-off meeting. Proposed consulting fees are also provided for two virtual Board meetings:

- Public hearing
- Formal rate hearing

We will prepare draft PowerPoint presentations for each meeting. We will provide a draft of this presentation to District staff for their review, comment, and approval.

DELIVERABLES:

- Virtual kick off meeting
- Two virtual Board meetings

COST CONTROL

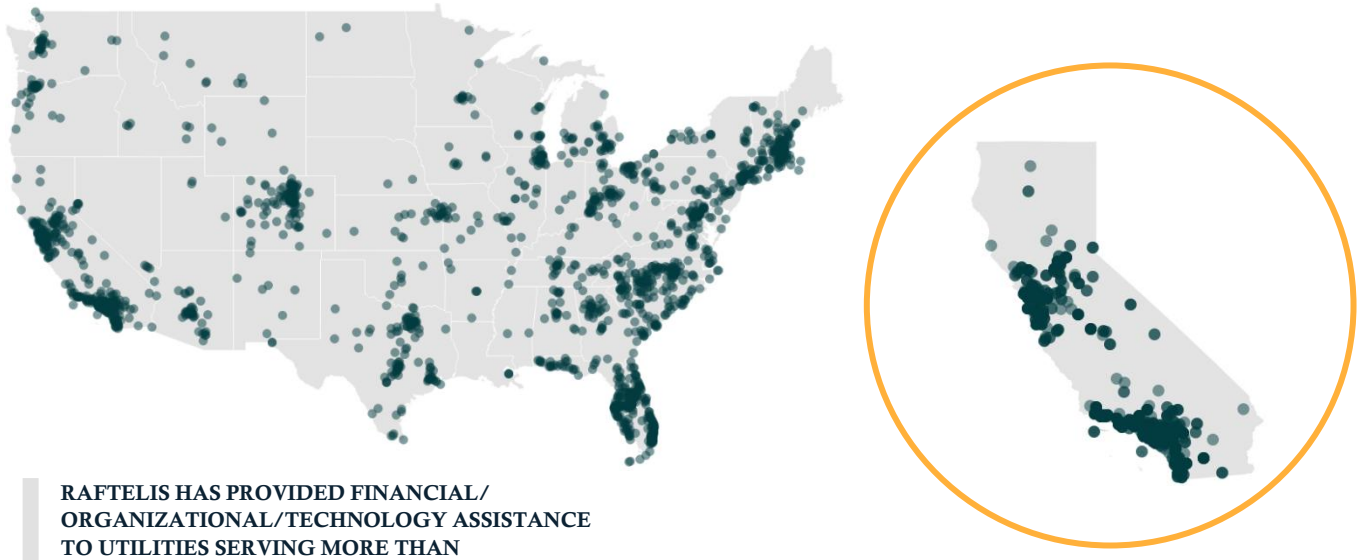
Client satisfaction is of the utmost importance to Raftelis, and we strive to provide services that meet our clients' objectives in the most cost-effective manner possible. When appropriate, we use web meetings in lieu of face-to-face meetings to reduce travel time and expenses. Raftelis uses our project management system to ensure the efficient allocation of resources and adherence to project budgets, and our project managers also meet regularly with our executive team to discuss project status and budget.

RELATED PROJECT/CLIENT INFORMATION

Related Project/Client Information

RAFTELIS HAS THE MOST EXPERIENCED PUBLIC UTILITY FINANCIAL AND MANAGEMENT CONSULTING PRACTICE IN THE NATION.

Our staff has assisted more than 2,000 local government agencies and utilities across the U.S., which includes over 350 utilities and local governments in California. In the past year alone, Raftelis worked on 1,400+ projects for 850+ clients in 46 states, the District of Columbia, and internationally. Below, we have provided descriptions of projects that we have worked on that are similar in scope to the District's project. We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide.



RAFTELIS HAS PROVIDED FINANCIAL/ ORGANIZATIONAL/TECHNOLOGY ASSISTANCE TO UTILITIES SERVING MORE THAN

50% OF THE U.S. POPULATION.

City of Roseville CA

Reference: George Hanson, Mr. George Hanson Water Utility Manager
City of Roseville, 2005 Hilltop Circle, Roseville, CA 95747 / P: 916.774.5770 / E: ghanson@roseville.ca.us
Initial Fee: $102,450 / **Final Study Cost:** $102,450
Project Team: John Wright (Project Manager), Summer Simpson (Consultant)

Cost of Service and Water and Wastewater Connection/Capacity Fee Study
Raftelis has assisted the City of Roseville (City) with several financial consulting engagements including the 2025 water and wastewater COS study, the development of updated water and wastewater connection/capacity fees, and the completion of a COS analysis for the City's recycled water operations. We have also assisted the City on several management consulting assignments over the past decade including the development of water and wastewater utility strategic plans. Our prior work for the City has allowed us to gain valuable insight that we will leverage throughout the COS Study.

San Bernardino Municipal Water Department CA

Reference: Cynthia Mouser, Director of Finance, San Bernardino Municipal Water Department
1350 South E Street, San Bernardino, CA 92408 / P: 909.453.6010 / E: cynthia.mouser@sbmwd.org
Initial Fee: $109,204 / **Final Study Cost:** $109,204
Project Team: John Wright (Project Manager), Summer Simpson (Consultant)

Comprehensive Cost of Services and Rate Structure Study
Raftelis has completed two comprehensive water and wastewater COS studies for the San Bernardino Municipal Water Department (Department). John Wright has served as the Project Manager on both studies. In 2022 we developed proposed rates that were adopted and successfully implemented by the Department. In 2026 we completed comprehensive water and wastewater COS studies that resulted in proposed FY 2027 – FY 2031 retail water, wholesale water, wastewater, and geothermal rates. On March 31, 2026, the Department's Board authorized the issuance of Proposition 218 notice for these rates. Both studies included the development of 10-year financial plans, COS studies using industry-standard principles, and proposed rates developed in compliance with Proposition 218 principles. We are now in the process of completing updated water and wastewater capacity fees for the Department with a planned implementation date of September 2026.

City of El Centro CA

Reference: Abraham Campos, P.E., Public Works Director and City Engineer, City of El Centro
1275 W. Main Street, El Centro, CA 92243 / P: 760.337.5182 / E: acampos@cityofelcentro.org

Elizabeth Caliva, P.E., Principal Engineer, Dudek Engineering
1275 W. Main Street, El Centro, CA 92243 / P: 760.479.4114: ecaliva@dudek.com
Initial Fee: $120,099 / **Final Study Cost:** $120,099
Project Team: John Wright (Project Manager), Summer Simpson (Consultant)

Water and Sewer Master Plans and Cost of Service Rates Study
Dudek Engineering served as the prime contractor for the City of El Centro's (City) Water and Sewer Master Plans and Cost of Service Rates Study project. Dudek developed the City's updated water and wastewater utility master plans and retained the services of Raftelis as a subconsultant for the water and sewer rate study components of the project. The rate studies included developing water and wastewater financial plans, completing water and wastewater COS analyses, and preparing proposed water and wastewater rates for the period FY 2027 – FY 2031. As part of the study, Raftelis restructured the City's existing wastewater rates to move from 22 separate customer classes to 6 aggregated strength-based classes. On March 31, 2026, the El Cento City Council authorized the issuance of Proposition 218 notice for these rates. We are now in the process of completing updated water and wastewater capacity fees for the City.

West Valley Water District CA

Reference: Jose Velasquez, Chief Financial Officer, West Valley Water District
855 W. Base Line Road, Rialto, CA 92376 / P: 909.820.3701 / E: jvelasquez@wvwd.org
Initial Fee: $92,112 / **Final Study Cost:** $92,112
Project Team: John Wright (Project Manager), Summer Simpson (Consultant)

Comprehensive Cost of Service and Rate Structure Study
West Valley Water District (District) provides water service to approximately 26,000 customers in Rialto and surrounding areas. In January 2023, the District retained the services of Raftelis to complete a comprehensive water cost of service and rate structure study. John Wright served as the Project Manager. The District has a diversified water supply portfolio that includes over one dozen water supply sources with annual water demand of over 21,000 AFY. The services provided included the development of several 10-year financial planning scenarios, a cost of service analysis, and rate design. Raftelis assisted the District develop a recommended financial plan that includes the construction of a new headquarters building. Our firm also suggested modification to the District's water rate structure consumption tiers. In December 2025, the West Valley Board of Directors adopted the water rates proposed by Raftelis.

City of La Mesa CA

Reference: Jacob Martin, Public Works Operations Manager, City of La Mesa
8130 Allison Avenue, La Mesa, CA 91942 / P: 619.667.1141 / E: jmartin@cityoflamesa.us
Initial Fee: $49,618 / **Final Study Cost:** $49,618
Project Team: John Wright (Project Manager)

Sewer Rate Study
The City of La Mesa (City) is one of twelve San Diego County wastewater utilities that receives wholesale treatment services from the San Diego Metro Joint Powers Authority. The City provides wastewater collection and conveyance service to a population of approximately 60,000 people in East San Diego County. In 2025, Raftelis completed a sewer rate study for the City that included: the development of a financial plan for the five-year period FY 2026 – FY 2030, a cost-of-service analysis, and proposed rates for the period FY 2026 – FY 2030.

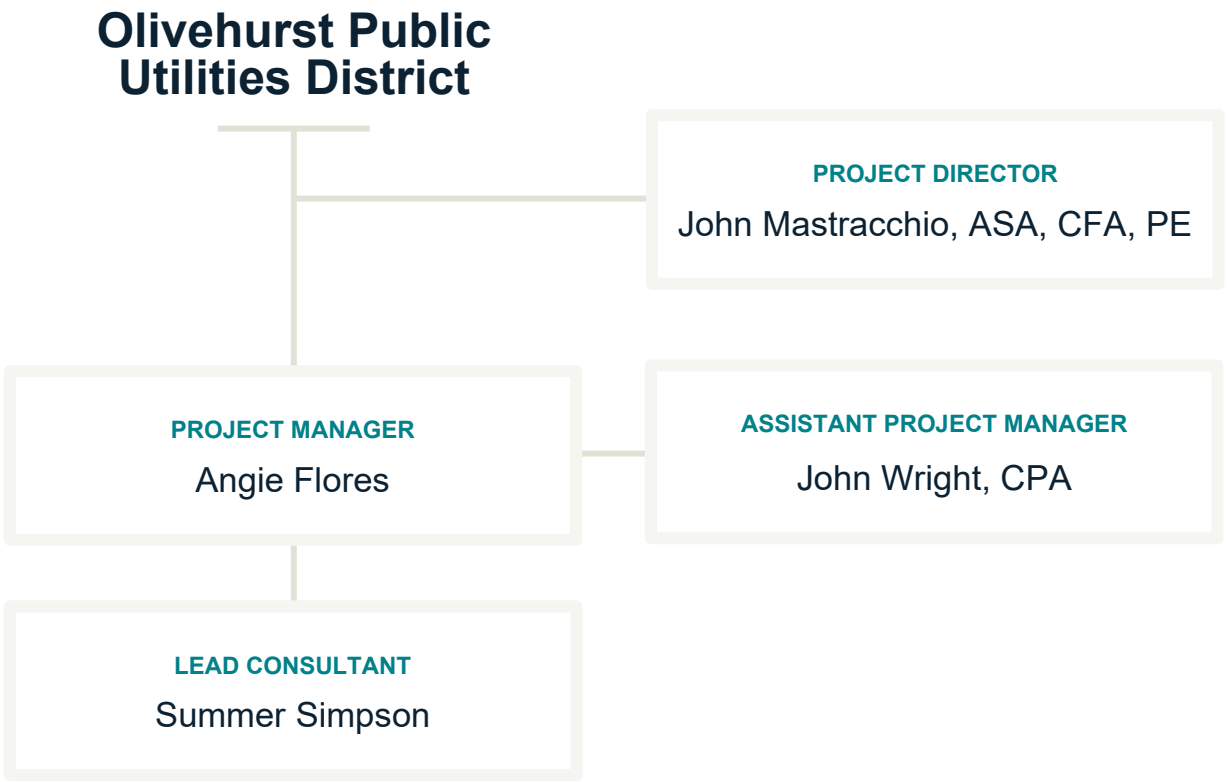
Individual Staff Experience and Project Organization

WE HAVE DEVELOPED A TEAM OF CONSULTANTS WHO SPECIALIZE IN THE SPECIFIC ELEMENTS THAT WILL BE CRITICAL TO THE SUCCESS OF THE DISTRICT'S PROJECT.

Our team includes senior-level professionals to provide experienced project leadership with support from talented consultant staff. This close-knit group has frequently collaborated on similar successful projects, providing the District with confidence in our capabilities.

Here, we have included an organizational chart showing the structure of our project team. On the following pages, we have included brief bios for each of our team members as well as a description of their role on the project. In the Appendix, we have provided full resumes.

We will not be including subconsultants for this project.



TEAM QUALIFICATIONS & EXPERIENCE

John Mastracchio ASA, CFA, PE

Project Director | Executive Vice President at Raftelis

Role: John will be responsible for overall project accountability and will be available to provide quality assurance and control, industry perspective, and insights into the project.

John is an Executive Vice President serving in a national role with Raftelis' financial consulting practice. He has more than 30 years of experience as a financial and management consultant serving the utility, governmental, and private sectors. His extensive experience includes over 250 financial projects covering technical areas including valuation, financial planning and rate setting, capital financing, asset management, regionalization, litigation support, and transactional consulting, and spans several utility sectors including water, wastewater, electric, solid waste, and stormwater, along with consulting for the federal government and municipal general governments, transportation agencies, and ports.

Angie Flores

Project Manager | Vice President at Raftelis

Role: Angie will manage the day-to-day aspects of the project ensuring it is within budget, on schedule, and effectively meets the District's objectives. She will also lead the consulting staff in conducting analyses and preparing deliverables for the project. Angie will serve as the District's main point of contact for the project.

Angie has been working in the water and wastewater utility industry for over 30 years. During this time, she has completed various cost-of-service and rate studies, financial planning models, and impact fee studies. As a consultant, Angie has worked with over forty clients on various water and wastewater financial studies. She has worked with many of her clients multiple times, always aiming to achieve financial sustainability for them. Before starting her work as a consultant in 2013, Angie worked for the Lower Colorado River Authority (LCRA) for 12 years. Her responsibilities included developing rate studies and financial planning models and participating in the business plan process for 32 water and wastewater utilities. LCRA manages the Highland Lakes system in Central Texas and is a major wholesale electric provider. Prior to her time at LCRA, Angie worked as a financial analyst at the Texas Water Development Board, which is a financial resource for political subdivisions of the State of Texas.

John Wright CPA

Assistant Project Manager | Senior Manager at Raftelis

Role: John will assist the Project Manager with managing the day-to-day aspects of the project and leading the consulting staff in conducting analyses and preparing deliverables for the project.

John has over 25 years of utility industry financial management and economic analysis experience – 16 years as a utility consultant with Raftelis and 7 years as a utility staff member with Denver Water (CO) and the City of Portland Bureau of Environmental Services (OR). John's expertise includes water, recycled water, and wastewater cost-of-service, solid waste financial planning, and capacity fee studies. John has provided consulting services to numerous complex utility clients, including the San Franciso Public Utilities Commission, the Metropolitan Water District of Southern California, the City of San Diego, the San Bernardino Municipal Water Department, Austin Water, the Portland Water Bureau, Milwaukee Water Works, the City of Calgary, and the Puerto Rico Aqueduct and Sewer Authority. As the Manager of Rate Administration at Denver Water, John was responsible for the annual water financial planning, cost-of-service, and system development charge studies. At the Portland Bureau of Environmental Services, he was responsible for the annual wastewater and stormwater financial planning, cost-of-service, and system development charge studies. John is also a contributing author to several AWWA and WEF publications, including AWWA's *Manual M1*, *Principles of Water Rates, Fees, and Charges,* and WEF's *Manual 27*, *Financing and Charges for Wastewater Systems*.

Summer Simpson

Lead Consultant | Consultant at Raftelis

Role: Summer will serve as the Lead Consultant and will work at the direction of Angie in conducting analyses and preparing deliverables for the project.

Summer joined Raftelis in 2022 after completing a Master of Science in Business Analytics at Wake Forest University. Since joining our firm, she has worked on financial consulting projects for water and wastewater utilities in California, Colorado, and Texas. Her duties have included billing data analysis and demand forecasting, financial planning, cost allocations, rate design, and capacity fee updates. As part of her graduate program at Wake Forest University, Summer served as a Business Consultant where she provided data analytics services to clients. This background has allowed her to provide data-driven insights into the operations of Raftelis water and wastewater utility clients.

WORKLOAD/FIRM RESOURCES

With the depth of more than 190 consulting professionals, and specifically the current and anticipated workload of the individuals assigned to this project, we have the availability to provide the requested services in a timely and efficient manner to meet the scheduling requirements and objectives of the District. As a rule, Raftelis operates at a company-wide project utilization of approximately 65% to 75%. This level of utilization, which we expect to continue through the proposed timeline of this project, will provide the project team with ample time to allocate to the District's engagement.

Raftelis actively manages the distribution of our staff hours to ensure we allocate the necessary resources to meet the needs of each of our clients. Raftelis' executive and management team participate in a weekly conference call to review the number of consulting hours required to meet the needs of our clients during the upcoming week. This weekly meeting allows our project managers to deploy our consulting staff in a flexible manner that ensures a suitable level of hours will be devoted to each client.

Below we have included the hours each team member will spend on each task along with hourly rates.

	Web Meetings	In-person Meetings	Hours					
			JM	AF	JW	SS	Admin	Total
Tasks								
Task 1: Project Initiation, Management, and Kick-Off	1		1	2	6	2	1	12
Task 2: Analysis of Customer Demand Characteristics and Demand Forecasting				2	7	12		21
Task 3: Financial Planning and Revenue Requirement Forecasting				2	7	12		21
Task 4: Cost-of-Service Analysis			1	2	8	12		23
Task 5: Rate Structure Design and Proposed Rates			1	2	8	12		23
Task 6: Rate Model Development			Included in Other Tasks					
Task 7: Cost-of-Service Study Report				1	4	24	2	31
Task 8: Meetings and Presentations	2			1	10	4		15
Total Meetings / Hours	**3**	**0**	**3**	**12**	**50**	**78**	**3**	**146**
Hourly Billing Rate			**$425**	**$375**	**$310**	**$230**	**$100**	

EXCEPTIONS

Exceptions

We request that the District consider making the following modifications, shown in red below, to the Professional Services Agreement. Please contact us if you have any questions or concerns about these modifications.

PROFESSIONAL SERVICES AGREEMENT

12. In accepting and utilizing any drawings, reports and data on any form of electronic media generated and furnished by Consultant, Client covenants and agrees that all such electronic files are instruments of service of Consultant, who shall be deemed the author, and shall retain all common law, statutory law and other rights, including copyrights. Nothing in this Agreement shall be deemed or construed as a waiver, release, transfer, assignment or divestiture by Consultant of any of its intellectual property, know-how or trade secrets.

Consultant agrees to defend, indemnify and hold harmless the Client, its officers, directors and employees from and against all claims, losses, demands, damages or costs, including attorneys' fees, to the extent caused by the negligent acts, errors or omissions of Consultant, its officers, directors and employees, or anyone for whom Consultant is legally liable, in the performance of this agreement.

33. Client agrees to defend, indemnify and hold harmless Consultant, its officers, directors and employees from all claims, losses, demands, damages or costs, including attorneys' fees, to the extent caused by the negligent acts, errors or omissions of the Client, its officers, directors and employees, or anyone for whom the Client is legally liable, in the performance of this agreement.

40. Consultant makes no warranty, either express or implied, as to its findings, recommendations, plans, specifications, or professional advice except that the services were performed pursuant to generally accepted standards of professional practice in effect at the time and location of performance. To perform the services hereunder, Consultant may rely on all data and information provided by or on behalf of Client. Client acknowledges and agrees that Consultant does not guarantee outcomes or results, and Consultant does not legislate, practice law or provide legal advice. Consultant shall have no obligation to indemnify Client against liability for claims by a third party for failure to comply with its obligations under Article XIII D of the California Constitution (Proposition 218). Further, nothing in this agreement shall obligate Consultant to provide litigation support, respond to inquiries or attend any proceedings, hearings, trials or appeals.

APPENDIX A: RESUMES

Appendix A: Resumes

John Mastracchio ASA, CFA, PE

PROJECT DIRECTOR
Executive Vice President

ROLE

John will be responsible for overall project accountability and will be available to provide quality assurance and control, industry perspective, and insights into the project.

PROFILE

John is an Executive Vice President serving in a national role with Raftelis' financial consulting practice. He has more than 30 years of experience as a financial and management consultant serving the utility, governmental, and private sectors. His extensive experience includes over 250 financial projects covering technical areas including valuation, financial planning and rate setting, capital financing, asset management, regionalization, litigation support, and transactional consulting, and spans several utility sectors including water, wastewater, electric, solid waste, and stormwater, along with consulting for the federal government and municipal general governments, transportation agencies, and ports.

John has earned the Chartered Financial Analyst (CFA) designation, is a Series 50 Municipal Advisor Representative, and is also a Licensed Professional Engineer. He is the Immediate Past Chair of the Finance, Accounting and Management Controls committee and a member of the Rates and Charges committee of the AWWA.

John has co-authored manuals of practice and utility industry papers on valuation, infrastructure investment, capital financing, financial management practices, and rate-setting, including AWWA's *Manual of Practice M1, Principles of Water Rates, Fees, and Charges*; *Water Rates, Fees, and the Legal Environment*; *Manual of Practice M29, Water Capital Financing*; and *Financial Management for Water Utilities: Principles of Finance, Accounting, and Management Controls*, along with the textbook *The Effective Water Professional: Leadership, Communication, Management, Finance, and Governance*, published by the Water Environment Federation (WEF).

KEY PROJECT EXPERIENCE

Metropolitan Water District of Southern California (CA): Pure Water Southern California Cost Recovery Alternatives Analysis

John is currently assisting the Metropolitan Water District of Southern California (Metropolitan) develop a cost allocation and funding plan for the Pure Water Southern California program. The Program is a partnership between Metropolitan and the Los Angeles County Sanitation Districts. The program will create a new water supply at an estimated cost of $8 billion to help meet the region's needs by providing up to 150 million gallons of water daily or 155,000 acre-feet-year, enough for 1.5 million people. The water will replenish groundwater basins, be used by industries, and potentially be

Specialties

- Financial analysis & modeling
- Financial planning, cost of service, rate design
- Bond feasibility studies
- Transactional due diligence support
- Government consolidation/regionalization
- Public-private partnerships
- Inter-municipal agreement support
- Expert witness & litigation support
- Benchmarking
- Capital financing & project planning
- Business process improvement
- Asset management/business case evaluations
- Valuation and appraisals

Professional History

- Raftelis: Executive Vice President (2022-present); Vice President (2017-2021)
- Arcadis, U.S., Inc. (2003-2017)
- Arthur Andersen (2001-2002)
- Parsons Corporation (1994-2000)

Education

- Master of Business Administration, Finance - Cornell University (2001)
- Master of Science, Civil & Environmental Engineering - Clarkson University (1994)
- Bachelor of Arts - State University of New York, College at Geneseo (1993)

Certifications

- Accredited Senior Appraiser (ASA)
- Chartered Financial Analyst (CFA)
- Professional Engineer (PE) (PA)
- Lean Six Sigma
- Series 50 Municipal Advisor Representative

Professional Memberships

- American Society of Appraisers
- AWWA: Immediate Past Chair of Finance, Accounting, & Management Controls Committee & Member of Rates & Charges Committee
- Chartered Financial Analyst Institute

integrated into Metropolitan's existing drinking water treatment and delivery system. In support of the development of this project, John is assisting Metropolitan identify and develop cost recovery options that will provide a long-term revenue source to fund the capital and operating cost of the project. John has led financial assessment and cost recovery surveys to help identify revenue recovery alternatives for the project.

Monterey Peninsula Water Management District (CA): Appraisal and Cost-of-Service Study

John completed an appraisal and assisted in the completion of a cost-of-service study for the Monterey Water System owned and operated by the California-American Water Company. The appraisal was completed to assist the District assess the financial feasibility of acquiring the water system through negotiated sale or condemnation action. He presented results to the District board for decision to move forward with possible condemnation.

PROJECT LIST

- ALCOSAN (PA) – Wastewater system appraisal
- Albany Water Board (NY) – Business case evaluations to support an asset management program
- Borough of Elmwood Park (NJ) – Water financial plan
- City of Bridgeport (CT) – Wastewater rate study
- Buncombe County MSD (NC) – Merger study
- Buncombe County MSD (NC) – System development fees
- Chesterfield County (VA) – Capacity fee evaluation and water and wastewater rate study
- Town of Colonie (NY) – Water and Wastewater rate study
- City of Darien (CT) – Inter-municipal wastewater service agreement
- DELCORA (PA) – Industrial Waste surcharge study.
- Town of Derby (CT) – Wastewater System Appraisal
- DC Water (DC) – Conveyance cost of service evaluation
- Delaware County (OH) – Capacity fee evaluation
- Department of the Public Advocate (NJ) – Valuation assessment
- DuPage Water Commission – Water Resources Financial Feasibility Study
- City of East Providence (RI) – Water and wastewater rate study
- Erie County DEP (NY) – Merger feasibility studies
- City of Evanston (IL) – Water and wastewater rate study
- City of Fort Wayne (IN) – Water and wastewater valuation study
- Town of Great Barrington (MA) – Water System Appraisal
- Green Bay Metropolitan Sewer District (WI) – Wastewater cost of service study
- Town of Greenburgh (NY) – Water rate study
- Greene County (OH) – Wastewater rate study
- City of Harrisburg (PA) – Asset transfer support
- City of Heath (OH) – Water and wastewater rate study
- Henrico County (VA) – Water and wastewater rate studies and capacity fee evaluation
- City of Hopewell (VA) – Wastewater bond feasibility study
- City of Houston (TX) - Water and wastewater rate study
- Isle of Wight County (VA) – Water and wastewater rate studies and financial planning
- Town of Jaffery (NH) – Water system appraisal.
- City of Joplin (MO) – Wastewater system appraisal
- City of Key West (FL) – Sewer, stormwater, solid waste, and marina rate studies and indirect cost study
- City of Kingston (NY) – Wastewater rate study
- City of Lancaster (OH) – Water and wastewater rate study and financial capability assessment
- City of Lansing (MI) – Wastewater rate study
- Town of Lincoln (RI) – Wastewater rate study
- Little River (SC) – Water Coop Appraisal
- City of Lorain (OH) – Wastewater regionalization study

- Macomb County (MI) – Wastewater acquisition evaluation and rate studies
- City of Marysville (OH) – Water and Wastewater rate studies and capacity fee analyses
- Metropolitan District Commission (CT) – Financial planning and acquisition support
- Miami-Dade County Seaport Department (FL) – Financial planning and bond consulting support
- City of Miamisburg (OH) – Water and wastewater rate studies and valuation assessment
- Milwaukee Metropolitan Sewer District (WI) – Owner's agent operations contracting assessment
- Monroe County Department of Environmental Services (NY) – Wastewater rate studies
- Montgomery County (OH) – Water and wastewater rate studies
- New Castle County (DE) – Inter-municipal wastewater agreement support
- City of New London (CT) – Water and wastewater rate study
- City of Newark (NJ) – Water and wastewater rate study
- City of Newark (OH) – Water and wastewater rate study
- Town of Newburgh (NY) – Wastewater affordability assessment and rate study
- North Bend (WA) – Water system appraisal.
- City of Norwalk (CT) – Wastewater rate study, stormwater feasibility assessment, and strategic plan
- South Norwalk Electric and Water (CT) – Water rate study
- Onondaga County Water Authority (NY) – Water rate study
- Onslow Water and Sewer Authority (NC) – Water and wastewater rate studies and capacity fee evaluation
- Passaic Valley Sewerage Commission (NJ) – Wastewater cost of service evaluation
- Philadelphia Water Department (PA) – Financial modeling support
- Prince William County Service Authority (VA) – Water and wastewater rate study
- Rockingham County (VA) – Massanutten Water and Sewer system appraisal.
- Rockland County (NY) – Sewer rate study
- City of San Diego (CA) – Water rate study
- San Francisco (CA) – Economic and Affordability Assessment
- Sanitation District No. 1 of Northern Kentucky (KY) – Wastewater financial modeling
- Saratoga County Water Authority (NY) – Water bond feasibility support
- Solid Waste Authority of Central Ohio (OH) – Financial planning and modeling
- City of Stamford (CT) – Capacity fee expert witness support
- Summit County (OH) – Wastewater rate study
- U.S. Virgin Islands Waste Management Authority (U.S. Virgin Islands) – Sewer and solid waste fee assessment
- Union County (NC) – Water and wastewater rate study and capacity fee assessment
- City of Virginia Beach (VA) – Water and wastewater rate studies and bond feasibility support
- City of Warren (OH) – Inter-municipal agreement support
- Watford City (ND) – General Fund Financial Model
- Westchester County (NY) – Wastewater Regionalization study
- Williamsport Sanitary Authority (PA) – Wastewater rate study, nutrient credit support, inter-municipal agreement support

Angie Flores

PROJECT MANAGER
Vice President

Specialties
- Financial planning modeling
- Utility cost-of-service & rate studies
- Acquisition analysis
- Conservation pricing
- Cost analysis & cost allocation
- System development/impact fee studies
- Affordability analysis
- Rate case experience

Professional History
- Raftelis: Vice President (2024-present); Senior Manager (2020-2023); Manager (2018-2019); Senior Consultant (2016-2017)
- HDR Engineering, Inc.: Rates & Finance Lead (2013-2016)
- Lower Colorado River Authority: Senior Financial Analyst & Rates Supervisor (2001-2013)
- Texas Water Development Board: Senior Financial Analyst (1992-2001)

Education
- Bachelor of Arts in Government - The University of Texas, Austin (1991)

Professional Memberships
- AWWA
- AWWA: Publications Committee
- AWWA: Rates and Charges Committee
- Water Environment Federation

ROLE

Angie will manage the day-to-day aspects of the project ensuring it is within budget, on schedule, and effectively meets the District's objectives. She will also lead the consulting staff in conducting analyses and preparing deliverables for the project. Angie will serve as the District's main point of contact for the project.

PROFILE

Angie has been working in the water and wastewater utility industry for over 30 years. During this time, she has completed various cost-of-service and rate studies, financial planning models, and impact fee studies. As a consultant, Angie has worked with over forty clients on various water and wastewater financial studies. She has worked with many of her clients multiple times, always aiming to achieve financial sustainability for them. Before starting her work as a consultant in 2013, Angie worked for the Lower Colorado River Authority (LCRA) for 12 years. Her responsibilities included developing rate studies and financial planning models and participating in the business plan process for 32 water and wastewater utilities. LCRA manages the Highland Lakes system in Central Texas and is a major wholesale electric provider. Prior to her time at LCRA, Angie worked as a financial analyst at the Texas Water Development Board, which is a financial resource for political subdivisions of the State of Texas.

KEY PROJECT EXPERIENCE

City of Kyle (TX): Water and Wastewater Financial Plan and Cost of Service Study

In 2023, Raftelis was engaged by the City of Kyle (City) to complete a Water and Wastewater Financial Plan and Cost of Service Study. This was the first study for the City of Kyle, who has been experiencing significant growth, being the fastest growing city in the nation. With the growth, Kyle was facing significant capital needs and the growth was resulting in changes to its customer classes. Raftelis has presented rates to Council twice over the past two years and will be engaged for another update in 2026.

City of Wichita Falls (TX): Wholesale Rate Study, Retail Water and Wastewater Rate Study

Since 2016, Angie has worked with the City of Wichita Falls (City) to complete its wholesale rate study. The study is conducted annually and follows a prescribed process developed through negotiations with the wholesale customers of the City. After the study, results are presented to the wholesale customers.

In 2019, a couple of the City's wholesale customers initiated discussions about the current rate study process. Angie worked with the customers' consultants to discuss their issues. In particular, the customers were concerned with the fluctuation in rates from year to year caused by fluctuations in consumption patterns of the wholesale and retail customers. Angie and the Raftelis team successfully negotiated a solution with the customers so that the City could revise the contracts for the wholesale customers.

In 2021, as project manager, Angie completed a retail water and wastewater rate study for the City. This study included the development of a financial planning model and cost of service analysis. Before this study, the City developed rates in-house. The financial planning model will be an essential tool for the City considering the significant investment of a new reservoir in the future. The model will allow the City to anticipate the future rates needed to support the future debt service and allow the City to cash-fund a portion of the investment with revenue from a potential water supply fee. In addition, Raftelis analyzed the City's asset list to identify assets needing repair and replacement. This allows the City to maintain the appropriate level of funding for assets nearing the end of their useful life.

In 2025, Angie is again leading a team in the completion of a cost of service study for the City's inside city limit customers. This will be the first cost of service study for the City. In addition, Raftelis is updating the city's financial plan forecast to reflect the latest projections of the City.

Lakeside Water Control and Improvement District Nos. 1, 2A, 2B, 2C, and 2D (TX): Water and Wastewater Financial Plan and Rate Study

The Lakeside Water Control and Improvement District Nos. 1, 2A, 2B, 2C, and 2D (District) initially retained Raftelis in 2021 to review a rate study completed by the City of Pflugerville. The City of Pflugerville had proposed a 40% rate increase to the Districts' wastewater rate. As project manager, Angie led the team that reviewed the rate study. Raftelis successfully disputed the proposed rate ensuring that the District was receiving the rate required by contract.

In 2022, Raftelis was engaged again to review the next rate study from the City of Pflugerville. In this study, Pflugerville was also proposing an increase to its operations contract. Raftelis reviewed the study and was able to provide feedback to the Districts. Based on our analysis, the Districts determined that it would be in their best interest to change operators for their internal system. Raftelis assisted by reviewing bids from operators.

In 2023, Raftelis was engaged to complete a water, wastewater, and stormwater rate study, based on its new operator costs. The District adopted the recommended rates at their August 2023 meetings.

City of San Angelo (TX): Water and Wastewater Rate Updates, Cost-of-service Study

Angie has been the project manager and completed two water and wastewater rate updates for the City of San Angelo. The Water Utilities Department engaged Raftelis in 2015 to complete a financial planning and cost-of-service study. Raftelis conducted a review of the City's financial policies and developed a comprehensive long-term financial plan to ensure sufficient funding of operations, capital improvements, and debt service costs. Annual revenue was determined to satisfy debt service ratios and bond covenant requirements. Also, a phase-in of rate revenue adjustments for the water and water reclamation services was determined, resulting in each service operating on a self-sustaining basis. Raftelis conducted a cost-of-service study that identified the cost to the Utility for serving the distinct customer classes and worked with City staff to evaluate alternative rate structures that more accurately addressed current utility objectives. Raftelis developed a recommended rate structure and set of rates that the City Council approved. Raftelis has updated this study and reviewed the rate plan annually through 2019.

In 2025, the City again engaged Raftelis to complete a water, wastewater, and stormwater cost of service and financial planning study. As Project Director, Angie led a team that completed the study. Raftelis reviewed the latest documents for the City and developed new models for the utilities. The study recommendations will be made in March 2026.

City of Manor (TX): Water and Wastewater Financial Plan and Rate Study

In 2017, the City of Manor (City) engaged Raftelis to complete a financial planning model and rate study. The City had completed a rate study about three years prior and needed to generate the amount of revenue that had been estimated for the rate increases adopted. This study needed to determine why the City was seeing shortfalls in revenue and make adjustments accordingly. Raftelis performed the required analysis and provided the City with a financial plan and rates that considered the City's most recent consumption patterns, which had changed since the previous study. The City has grown significantly in recent years and will begin requiring capital improvements. This study provided the City with the

information it will need to fund future capital investments. The City Council approved rates in April 2010. In addition, Raftelis reviewed a rate study provided by one of the City's wholesale water providers as it proposed a rate increase.

Since 2022, Raftelis has been updating the financial plan and rate model. In addition, Raftelis has been assisting the City in negotiating a contract for its next water supply.

City of Denton (TX): Water and Wastewater Financial Plan and Rate Study

In 2019, Raftelis was engaged by the City of Denton to complete a cost-of-service study that considered retail and wholesale rates. Angie worked as a project manager on this study. The study included the cost of service allocations to the City's customer classes. As part of the study, Raftelis will be completed a pricing objectives workshop that will allow the City to identify the goals of the Public Utility Board and City Council. Rate recommendations were made to City management in March 2021. The project was delayed due to Covid-19.

In 2025, the City engaged Raftelis to complete a retail and wholesale water and wastewater cost of service and financial planning model update. Since the last study, the City has seen significant growth so this study is timely. The results of the wholesale study will allow the City to discuss necessary rate increases with its wholesale customers, who have not received a rate adjustment in some time. In addition, the cost of service results will be used to implement rate changes within the City. This study also included a stormwater study.

City of Arlington (TX): Water and Wastewater Financial Plan and Rate Study

In 2019, Raftelis was engaged by the City of Arlington to complete a cost-of-service study considering water and wastewater rates. Angie worked as a project manager for this study. The study included the cost of service allocations to the City's customer classes. With the diversity of the City's commercial class, Raftelis considered the usage patterns of the classes and made recommendations for the class. In addition, an essential aspect of the study was the development of the cost of service for fire protection. The study results showed that the customer classes were each covering their costs. The study was completed in 2021 after a pause due to Covid-19.

Since 2022, Arlington has engaged Raftelis to complete rate study updates and other special rate analysis. Angie has been the project director on those studies.

City of Abilene (TX): Raw Water Rate, Water and Wastewater Financial Planning Model, and Cost-of-service Analysis

Angie has worked with the City of Abilene as a project manager since joining Raftelis. The first study was to develop a raw water rate for a potential new customer of the City. The second study was a water and wastewater financial planning model and cost-of-service analysis. The study, which was the first for the City in many years, provided the City with information for setting rates in the future as capital investment becomes necessary. Included in this study was the development of a financial planning model used by the City each year. In 2020, Raftelis completed another study to determine the cost of providing wholesale treated water from the City of Abilene. The City will use the results of this study to negotiate with future wholesale customers.

In 2022, Raftelis was engaged to update and modify the City's financial planning model. The City needed a more robust capital planning tool that would allow the City to analyze the impact of capital projects on rates and be able to prioritize projects.

In 2025, the City's financial plan was converted to Raftelis' Ellio software. This will allow the City to access the financial plan from the cloud where it is more secure as well as access Raftelis' financial metrics for utilities.

City of Shallowater (TX): Water and Wastewater Rate Study

The City of Shallowater (City) is located west of Lubbock. The City's aging infrastructure and increasing growth will require that the City invest significant capital into its system. In addition, challenges at the City's water treatment plant

have meant that it must continue to purchase water from the City of Lubbock. While the City has increased rates modestly in the past, a formal rate study had not been completed. Raftelis developed a financial plan and rate study that evaluated current and future rate requirements based on forecasted costs. The plan considered future investments. This analysis allowed the City to prioritize projects based on a future rate plan. The City adopted the recommended rates for FY 2024. Raftelis will continue through an on-call agreement to complete a detailed cost-of-service analysis and determine rates for a five-year period that will address the finalized capital plan.

In 2025, the City of Lubbock informed the City that they would need to find another water source. This meant additional rate increases to build a new water source. Raftelis has been working with the City to ensure that rates will be sufficient to pay debt service on loans from the Texas Water Development Board. Our analysis addresses affordability concerns in the community. In addition, Raftelis has assisted the City by providing communication materials, a website and open houses to ensure everyone understands the rate proposals.

PROJECT LIST

- Belforest Water District (AL) – Water Rate and Impact Fee Study
- Brownsville Public Utilities Board (TX) – Utility Strategic Plan
- El Paso Water Utilities (TX) – Customer Assistance Program
- City of Abilene (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Arlington (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Brackettville (TX) – Water Utilities Technical Assistance Program (TWDB)
- City of College Station (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Copperas Cove (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Copper Canyon (TX) – Water Rate Study
- City of Corpus Christi (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Corpus Christi (TX) – Water, Wastewater, Roadway Impact Fee Study
- City of Corpus Christi (TX) – EPA Financial Capability Analysis
- City of Denton (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Denison (TX) – Water, Wastewater, Roadway Impact Fee Study
- City of Georgetown (TX) – Water and Wastewater Impact Fee Study
- City of Granbury (TX) – Water and Wastewater Impact Fee Study
- City of Kemp (TX) – Water and Wastewater Rate Study
- City of Kyle (TX) – Water and Wastewater Rate Study
- City of Liberty Hill (TX) – Water and Wastewater Rate Study (Retail and Wholesale)
- City of Lucas (TX) – Water and Wastewater Rate Study
- City of Manor (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Midland (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Midland (TX) – Reclaimed Water Rate Study
- City of Missoula (MT) – Acquisition Analysis
- City of Pearland (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Pharr (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Pueblo (CO) – EPA Financial Capability Analysis
- City of Richmond (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Roscoe (TX) – Water and Wastewater Financial Plan and Rate Study
- City of Round Rock (TX) – Water and Wastewater Rate Study (Retail and Wholesale)
- City of Round Rock (TX) – Water and Wastewater Impact Fee Study
- City of San Angelo (TX) – Water and Wastewater Financial Plan and Rate Study
- City of San Marcos (TX) – Economic Development Analysis
- City of Shallowater (TX) – Water and Wastewater Rate Study
- City of Three Rivers (TX) – Water and Wastewater Rate Study
- City of Universal City (TX) – Water and Wastewater Impact Fee Study

- City of Wichita Falls (TX) – Wholesale Water Rate Study
- City of Wichita Falls (TX) – Economic Analysis
- City of Wichita Falls (TX) – Water and Wastewater Rate Study
- Fort Bend Water Control and Improvement District (TX) – Water and Wastewater Rate Study
- Goforth Special Utility District (TX) – Water and Wastewater Impact Fee Study
- Lakeside WCID Nos. 1, 2A, 2B, 2C, and 2D (TX) – Pflugerville Rate Study Review
- Lakeside WCID Nos. 1, 2A, 2B, 2C, and 2D (TX) – Water and Wastewater Rate Study
- Liberty Utilities (TX) – Water PUCT Rate Case
- North Harris County Regional Water Authority (TX) – GRP Water Rate Study
- Porter Special Utility District (TX) – Water Rate Study
- San Antonio Water System (TX) – Water and Wastewater Cost of Service Study
- San Jacinto River Authority (TX) – Raw Water Rate Study
- San Jacinto River Authority (TX) – GRP Rate Study
- Springs Hill Special Utility District (TX) – Water and Wastewater Rate Study
- Town of Addison (TX) – Water and Wastewater Rate Study
- Town of Argyle (TX) – Wastewater Rate Study
- Town of Argyle (TX) – Billing System Audit

PUBLICATIONS

- "Utility Best Management Practices: Strong Adopted Financial Management Policies," coauthored by Bryan A. Mantz and Angie Flores, JournalAWWA, April 5, 2022

PRESENTATIONS

- "Sharing Our Resources – How Abilene Priced Its Newest Service," Texas Water 2018
- "Laying the Foundation for a New Reservoir: Economic Analysis and Financial Planning to Ensure Success," Texas Water 2023

DEPOSITIONS/TESTIMONY

- SOAH Docket No. 582-08-2863, TCEQ Docket No. 2008-0093-UCR, "Appeal of Retail Water and Wastewater Rates of the Lower Colorado River Authority

John Wright CPA (CO)

ASSISTANT PROJECT MANAGER
Senior Manager

ROLE

John will assist the Project Manager with managing the day-to-day aspects of the project and leading the consulting staff in conducting analyses and preparing deliverables for the project.

PROFILE

John has over 30 years of utility industry financial management and economic analysis experience – 16 years as a utility consultant with Raftelis and 7 years as a utility staff member with Denver Water (CO) and the City of Portland Bureau of Environmental Services (OR). John's expertise includes water, recycled water, and wastewater cost-of-service, financial planning, and capacity fee studies.

John has provided consulting services to numerous complex utility clients, including the San Franciso Public Utilities Commission, the Metropolitan Water District of Southern California, the City of San Diego, the San Bernardino Municipal Water Department, Austin Water, the Portland Water Bureau, Milwaukee Water Works, the City of Calgary, and the Puerto Rico Aqueduct and Sewer Authority.

As the Manager of Rate Administration at Denver Water, John was responsible for the annual water financial planning, cost-of-service, and system development charge studies. At the Portland Bureau of Environmental Services, he was responsible for the annual wastewater and stormwater financial planning, cost-of-service, and system development charge studies.

John is a contributing author to several AWWA and WEF publications, including AWWA Manual M1, *Principles of Water Rates, Fees, and Charges,* and WEF Manual 27, *Financing and Charges for Wastewater Systems*.

KEY PROJECT EXPERIENCE

San Bernardino Municipal Water Department (CA): Comprehensive Cost-of-Services and Rate Structure Update

John was the project manager for a comprehensive water and wastewater rate study for the City of San Bernardino (Department) completed in 2022. He is currently serving as the Project Manager for a similar study in 2026. Both studies included the development of 10-year financial plans, cost-of-service studies using industry-standard principles, and the development of wholly revised water and wastewater rate structures that were implemented by the Department's Board of Water Commissioners. In addition, Raftelis also developed drought surcharges for the Department. The outcome of both studies was the development of Proposition 218-compliant water and wastewater rates for the period FY 2022 - FY 2026 and FY 2027 - 2031.

Specialties
- Cost-of-service studies
- Capacity fee studies
- Financial & economic analysis
- Public speaking and presentations
- Expert witness testimony
- Litigation support

Professional History
- Raftelis: Senior Manager (2020-present); Manager (2017-2019); Senior Consultant (2010-2016)
- Denver Water: Manager of Rate Administration (2006-2009)
- Portland Bureau of Environmental Services: Senior Economist (2004-2006)
- Public Utility Commission of Oregon: Senior Utility Analyst (2002-2004)
- Positions in the Competitive Telecommunications Industry (1997-2002)
- Colorado Public Utilities Commission: Senior Financial Analyst (1991-1997)

Education
- Master of Science in Finance - University of Colorado, Denver
- Bachelor of Science in Accounting - Metropolitan State University of Denver

Certifications
- Certified Public Accountant, State of Colorado #11959
- Series 50 Municipal Advisor Representative

Professional Memberships
- AWWA - Rates & Charges Committee
- Contributing author to the 6th and 7th editions of AWWA Manual M1. Member of the editorial committee responsible for the upcoming 8th edition of Manual M1
- WEF Utility Management Committee
- Contributing author to the 4th edition of WEF Manual No. 27.

City of El Centro (CA): Water and Sewer Master Plans and Cost of Service Rates Study

Dudek Engineering served as the prime contractor for the City of El Centro's (City) Water and Sewer Master Plans and Cost of Service Rates Study project. Dudek developed the City's updated water and wastewater utility master plans and retained the services of Raftelis as a subconsultant for the water and sewer rate study components of the project. The rate studies included developing water and wastewater financial plans, completing water and wastewater COS analyses, and preparing proposed water and wastewater rates for the period FY 2027 – FY 2031. As part of the study, Raftelis restructured the City's existing wastewater rates to move from 22 separate customer classes to 6 aggregated strength-based classes. On March 31, 2026, the El Cento City Council authorized the issuance of Proposition 218 notice for these rates. We are now in the process of completing updated water and wastewater capacity fees for the City.

West Valley Water District (CA) Comprehensive Cost of Service and Rate Structure Study

West Valley Water District (District) provides water service to approximately 26,000 customers in Rialto and surrounding areas. In January 2023, the District retained the services of Raftelis to complete a comprehensive water cost of service and rate structure study. John Wright served as the Project Manager. The District has a diversified water supply portfolio that includes over one dozen water supply sources with annual water demand of over 21,000 AFY. The services provided included the development of several 10-year financial planning scenarios, a cost of service analysis, and rate design. Raftelis assisted the District develop a recommended financial plan that includes the construction of a new headquarters building. Our firm also suggested modification to the District's water rate structure consumption tiers. In December 2025, the West Valley Board of Directors adopted the water rates proposed by Raftelis.

City of San Diego (CA): Consulting Services for the Public Utilities Department - Water and Wastewater Cost-of-Service Studies

The City of San Diego (City) provides retail water, wastewater, and recycled water service to approximately 1.4 million people in metropolitan San Diego. John was the lead consultant on the City's recent wastewater and recycled water rate studies. His responsibilities included working with City staff to prepare a revenue requirement projection for the wastewater enterprise fund, 2) developing wastewater and recycled water cost allocations as part of the wastewater cost of service study, and 3) calculating proposed wastewater and recycled water rates for the period FY 2022 – FY 2026.

The City's wastewater utility system consists of Municipal and Metropolitan sub-systems. The Municipal sub-system is a wastewater collection and conveyance system for retail customers served within the City's jurisdictional boundaries. The Metropolitan sub-system is a regional wastewater treatment and disposal system that provides service to 16 member agencies in the County of San Diego. John's work on the project included analyzing the methodology used to allocate Municipal and Metropolitan subsystem operating and capital costs to the City's retail wastewater and recycled water customers. He also developed a comprehensive mass balance analysis that reconciled the wastewater flow and strength loadings contributed by the City to the flow and strength loadings recorded at each of the three City-owned treatment plants.

Imperial Irrigation District (CA) Cost-of-Service Study

Raftelis is in the process of completing a comprehensive cost-of-service study for the Imperial Irrigation District (IID) that includes financial planning, cost allocations and rate design. John is serving as the project manager on the consulting engagement. With more than 3,000 miles of canals and drains, IID is the largest irrigation district in the nation. IID's Water Department is responsible for the timely operation and maintenance of the extensive open channel system and delivers its annual entitlement of 3.1 million acre-feet, less water transfer obligations, to nearly one-half million acres for agricultural, municipal and industrial use.

Metropolitan Water District of Southern California (CA): Pure Water Southern California Conceptual Cost Recovery Alternatives

Raftelis is assisting the Metropolitan Water District of Southern California (MWD) in developing conceptual cost recovery mechanisms for the Pure Water Southern California project, a potential regional water recycled program with the Los Angeles County Sanitation District that MWD is studying. John is serving as a consultant on this project.

San Francisco Public Utilities Commission (CA): Water and Wastewater Rate Study

John was the project manager for the wastewater cost-of-service study portion of a water and wastewater rate study Raftelis completed for the San Francisco Public Utilities Commission (SFPUC) in 2023. The SFPUC treats approximately 60 to 70 MGD during dry weather and 115 to 180 MGD during wet weather events. Traditionally, SFPUC has recovered stormwater costs through its wastewater rates. The Raftelis study included allocating costs between the SFPUC's wastewater and stormwater operations and resulted in the first separate stormwater rates in SFPUC history. The SFPUC's Wastewater Enterprise provides wastewater and stormwater collection, treatment, and disposal services for the City. The collection system consists of approximately 900 miles of sewer system lines throughout the City. The SFPUC treats sanitary sewer and wet weather flows in its three water pollution control plants (Southeast Treatment Plant, Oceanside Treatment Plant, and the North Point Wet Weather Facility), which discharge effluent to the San Francisco Bay and Pacific Ocean.

Las Virgenes Municipal Water District (CA): Water, Wastewater, and Recycled Water Connection Fee Study

In 2023, Raftelis completed a water, wastewater, and recycled connection fee update for the Las Virgenes Municipal Water District (District). The project is being led by our Project Manager, John Wright. The District services approximately 20,000 water customer connections primarily with imported water provided by the Metropolitan Water District of Southern California. The District, in conjunction with the Triunfo Water and Sanitation District, is a member agency of the Las Virgenes-Triunfo Joint Powers Authority (JPA) which provides wastewater and recycled water service. As part of the study, Raftelis used the hybrid method to calculate updated water and recycled water connection fees and the equity buy-in method to calculate updated wastewater connection fees. Our work in this regard included valuing the District's share of Las Virgenes-Triunfo JPA assets.

Long Beach Water (CA): Cost-of-Service Update for Water, Reclaimed Water, and Sewer Rates

Long Beach Water (LBW) is a division of Long Beach Utilities. It provides water, sewer, and recycled water service to a population over 460,000 in the City of Long Beach. John served as the project manager on a water and sewer cost-of-service study for LBW. The key objective of the study was a comprehensive review of the cost allocations used to support LBW's currently effective utility rates and the creation of a new financial planning and cost allocation model. John also served as the project manager for a study investigating the potential implementation of water capacity fees. The study includes the valuation of the City's water infrastructure, the identification of capacity fee calculation methodologies, and the development of proposed capacity fee assessment schedules.

Long Beach Water (CA): Water Capacity Fee Study

In 2022, Raftelis completed a water connection fee study for the Long Beach Water (LBW) potable water system. The study was completed by our Project Manager, John Wright. LBW does not currently charge potable water capacity fees and has not done so in the past. The City of Long Beach is almost fully developed and LBW has available capacity in its existing potable water infrastructure to serve future demand growth. Thus, new customers will largely be served by existing infrastructure, which was originally funded using external debt financing. Recognizing these factors and taking into consideration the investment made by existing customers in the potable water system, Raftelis calculated potable water connection fees for LBW using the equity buy-in method. As part of the capacity fee calculation process, fees for different functional components of the water system such as wells, pumping, transmission, and treatment have been calculated.

Las Virgenes Municipal Water District: Pure Water Project Financial Planning

In 2021 and 2022, Raftelis assisted the La Virgenes Municipal Water District and the Triunfo Water and Sanitation District develop long-range water, wastewater, and recycled water rate forecasts for the Las Virgenes-Triunfo Pure Water Project. The Raftelis analysis was led by John Wright and consisted of working with both utilities and their financial advisor (Piper Sandler) to develop long-term rate forecasts under differing financing strategies (e.g., WIFIA lands, revenue bonds, grants, and pay-go funding). Las Virgenes and Triunfo provide water and wastewater service to communities in Western Los Angeles County and Eastern Ventura County. Both agencies are partners in the Las Virgenes -Triunfo Joint Powers Authority (JPA) which operates the Tapia Water Reclamation Facility. The JPA has

pursued the Pure Water Project to develop an alternative water supply source that is cost competitive with imported water and that significantly reduces the uncertainty of supplies from the California State Water Project. The Pure Water Project will supply up to 1,600 acre feet/year (AFY) for Las Virgenes and up to 670 AFY for Triunfo. The total estimated construction cost for the Pure Water Project ranges from $300 million (low) to $342 million (high).

Padre Dam Municipal Water District (CA): Comprehensive Cost-of-Service / Rate Study

The Padre Dam Municipal Water District (District) provides water, wastewater, and recycled water service to a population of over 100,000 in East San Diego County. The District features two separate service territories with distinct elevation levels and customer demographics. John served as a project manager for a rate study that included the development of financial plans and revenue requirement projections, cost-of-service studies, and proposed Proposition 218 rates for water (including drought rates), wastewater, and recycled utility services.

Vallecitos Water District (CA): Comprehensive Water Cost-of-Service Study

The Vallecitos Water District (District) provides water service to over 22,000 potable water accounts in northern San Diego County. John served as a project manager for a water cost-of-service study and the development of proposed water rates. The study included a modification to the District's method of allocating water supply costs to each consumption tier and the development of proposed drought surcharge rates.

Irvine Ranch Water District (CA): Cost-of-Service and Rate Design Study

The Irvine Ranch Water District (District) serves a 181 square mile area that includes all of the City of Irvine and portions of the cities of Tustin, Newport Beach, Costa Mesa, Orange, and Lake Forest, as well as some unincorporated regions of Orange County. The total estimated daytime population served is approximately 600,000 people through approximately 118,000 water and 113,000 sewer connections. John was the project manager responsible for a water, sewer, and recycled water cost-of-service and rate design study for the District. The overarching objective of the Study was to conduct a comprehensive review of the methods used by the District to develop the rates it charges for water, sewer, and recycled water service to confirm compliance with Proposition 218 and other applicable legal requirements.

Eastern Municipal Water District (CA): Long-Term Financial Plan Update

The Eastern Municipal Water District (District) provides water, wastewater, and recycled water service to a population of approximately 850,000 in Riverside County. John served as the project manager for an update of the long-term financial planning models for each of the District's utilities. The models featured scenario planning capabilities and developed revenue requirement projections over a fifteen-year planning horizon.

City of Coronado (CA): Wastewater Rate and Fee Study Update

Raftelis completed a wastewater cost-of-service study for the City of Coronado (City). John was the project manager for the study. The City operates a wastewater collection and conveyance system that provides services to customers within the City's jurisdictional boundaries. The City is a member of the San Diego Metro Regional Wastewater Joint Powers Authority, and customer wastewater discharges are transported to this agency for treatment. As part of the study, Raftelis completed a five-year financial plan and proposed updated wastewater rates as part of the study.

City of Pico Rivera (CA): Financial Analysis of the Master Plan Update's for the City of Pico Rivera

Raftelis, with John as project manager, served the City of Pico Rivera as a subcontractor to the engineering firm IMEG. The City retained IMEG to complete master plans for the City's water, wastewater, and stormwater infrastructure. For the City's water utility, Raftelis developed a financial plan featuring IMEG's proposed capital improvement program (CIP) expenditures, a water cost-of-service study, and alternative water rate structures. The City's wastewater collection and conveyance system is maintained by the Los Angeles County Consolidated Sewer Maintenance District (CSMD). Raftelis developed a financial plan that analyzes the customer impacts of IMEG's proposed wastewater CIP expenditures and whether the City should continue as a member of the CSMD. Raftelis also assisted the City in analyzing the funding required to support IMEG's proposed stormwater CIP expenditures.

City of Solana Beach (CA): Wastewater Rate Study

The City of Solana Beach (City) operates a wastewater collection and conveyance system that provides services to customers within its boundaries. The City is a member of the San Elijo Joint Power Authority, and customer wastewater discharges are transported to this agency for treatment. Raftelis completed a wastewater cost-of-service study for the City with John serving as the project manager in this consulting engagement.

Rancho California Water District (CA): Financial Plan and Rate Update Study

Rancho California Water District (District) serves approximately 43,000 water and wastewater customers in Temecula, CA. The City has a sophisticated water budget rate structure that was developed by Raftelis. John served as the project manager for an update of the District's rates for FY 2021 - FY 2023.

PROJECT LIST

- Austin Water (TX) – Water and wastewater cost-of-service studies for retail and wholesale services
- Box Elder Sanitation District (CO) – Financial planning and capacity fees
- City of Calgary Utilities and Environmental Protection Department (AB, Canada) – Comprehensive financial risk assessment of water, wastewater, and stormwater utilities
- City of Chandler (AZ) – Water and wastewater cost-of-service and rate design
- City of Corvallis (OR) – Water and wastewater financial planning, cost-of-service, and rate design
- Contra Costa County Sanitary District – Recycled water project financial analysis
- Eastern Municipal Water District (CA) – Water, wastewater, and sewer financial planning
- East Larimer County Water District (CO) – Water financial planning, cost-of-service, rate design and capacity fees
- Fort Collins Loveland-Water District (CO) – Water financial planning, cost-of-service, and rate design
- Imperial County (CA) – Water and sewer financial planning, cost-of-service, and rate design studies
- Irvine Ranch Water District (CA) – Water, sewer, and recycled water cost-of-service and rate design
- Ken Caryl Ranch Water and Sanitation District (CO) – Water and wastewater financial planning, cost-of-service, and rate design
- Left Hand Water District (CO) – Financial model update and capacity fees
- Long Beach Water Department (CA) – Water, wastewater, and recycled water cost-of-service, and rate design; water capacity fees
- Metropolitan Water District of Southern California (CA) – Potential rate structure alternatives for the recovery of wholesale treatment costs
- Milwaukee Water Works (WI) – Expert witness testimony in a rate case proceeding at the Public Service Commission of Wisconsin
- City of Naperville (IL) – Water and wastewater financial planning, cost-of-service, and rate design
- City of Norman (OK) – Water and wastewater capacity fees
- Padre Dam Municipal Water District (CA) – Water, wastewater, and recycled water financial planning, cost-of-service, and rate design; drought rates
- City of Pico Rivera (CA) – Water financial planning, cost-of-service, and rate design
- Portland Water Bureau (OR) – Audit of wholesale rate model
- Prescott Valley (AZ) – Non-utility impact fee study
- Prosper Coordinating Metropolitan District (CO) – Financial planning, cost-of-service, rate design, and system development charges for a greenfield planned development east of metropolitan Denver
- Puerto Rico Aqueduct and Sewer Authority (PR) – Review of financial planning forecasts
- Rancho California Water District (CA) – Water cost-of-service and rate update
- San Bernardino Municipal Water District (CA) – Water, sewer, and recycled water financial planning, cost-of-service, and rate design; drought rates
- City of San Diego (CA) – Wastewater and recycled water financial planning, cost-of-service, and rate design
- Santa Clara County Water District (CA) – Groundwater zone of benefit cost-of-service study
- Santa Clarita Valley Municipal Water Department – Water stand-by charges

- San Franciso Public Utilities Commission – Wastewater and stormwater cost-of-service study
- Soldier Canyon Water Treatment Authority (CO) – Financial planning and rate design
- South Fort Collins Sanitation District (CO) – Financial planning, cost-of-service, and rate design
- Strathcona County (AB, Canada) – Water and wastewater financial planning, cost-of-service, and rate design
- City of Thornton (CO) – Water financial planning, cost-of-service, and rate design
- Vallecitos Water District (CA) – Water cost-of-service and rate design
- City of Westminster (CO) – Water and wastewater financial planning, cost-of-service, and rate design study
- City of Wichita (KS) – Water and wastewater financial planning, cost-of-service, and rate design

PUBLICATIONS (CONTRIBUTING AUTHOR)

- "AWWA Manual M1, Principles of Water Rates, Fees and Charges," Sixth Edition (2021) and Seventh Edition (2017).
- Member of the Editorial Committee for the upcoming and as yet unpublished Eighth Editon of AWWA Manual M1 (2024 expected publish date)
- "Financing and Charges for Wastewater Systems," WEF Manual of Practice No. 27 Fourth Edition, 2018
- "Water Utility Capital Financing," AWWA Manual M29, Fourth Edition, 2017
- "AWWA Asset Management Definitions Guidebook," Version 1.0, 2018
- "WEF Effective Water Professional," First Edition, 2015
- "WEF User-Fee Funded Stormwater Programs," Second Edition, 2013
- "WEF The Energy Roadmap: A Water & Wastewater Utility Guide to More Sustainable Energy Management," First Edition, 2013
- "Water and Wastewater Finance and Pricing, The Changing Landscape," CRC Press, Fourth Edition, 2015

PRESENTATIONS

- "Developing a Financial Plan to Support Deferred Maintenance Funding," AWWA/WEF Utility Management Conference, 2019
- "Water System Development Charges Tailored to Land Use," AWWA/WEF Utility Management Conference, 2019
- "Utility Financial Risk Assessment - The Calgary Experience," AWWA Annual Conference, 2017
- "Water Profession: Current Issues and Future Challenges," Guest Lecturer at the University of Colorado-Boulder, Civil Engineering Class No. 5574, 2017 and 2018
- "Community Involvement Committees from a Municipal Utility Perspective," Colorado GFOA Conference, 2016
- "Securing Thornton's Water Future," RMSAWWA/RMWEA Annual Joint Conference, 2015
- "Financial Strategies to Prepare for the Next Economic Crises," AWWA Annual Conference, 2014
- "Weathering Economic Crises: Creating a Resilient Financial Plan for Your Utility," AWWA Webinar, 2014
- "Wichita Water Utilities Financial Restructuring," KWEA/KAWWA Annual Joint Conference, 2013
- "Capital Planning - A Business Case Process," AWWA Annual Conference, 2013
- "Declining Revenues and Your Rate Structure," AWWA Annual Conference, 2012

Summer Simpson

LEAD CONSULTANT
Consultant

Specialties
- Financial and economic analysis
- Forecasting and modeling
- Descriptive statistics
- Data analysis

Professional History
- Raftelis: Consultant (2026-present); Associate Consultant (2022-2025)
- Ralph Lauren: Graduate Business Consultant (2021-2022)

Education
- Master of Science in Business Analytics - Wake Forest University (2022)
- Bachelor of Science in Business Administration, Management Major - Webber International University (2021)

Professional Memberships
- AWWA: Texas Section

ROLE
Summer will serve as the Lead Consultant and will work at the direction of John in conducting analyses and preparing deliverables for the project.

PROFILE
Summer joined Raftelis in 2022 after completing a Master of Science in Business Analytics at Wake Forest University. Since joining our firm, she has worked on financial consulting projects for water and wastewater utilities in California, Colorado, and Texas. Her duties have included billing data analysis and demand forecasting, financial planning, cost allocations, rate design, and capacity fee updates. As part of her graduate program at Wake Forest University, Summer served as a Business Consultant where she provided data analytics services to clients. This background has allowed her to provide data-driven insights into the operations of Raftelis water and wastewater utility clients.

KEY PROJECT EXPERIENCE

City of El Centro (CA): Water and Wastewater Rate Study
Raftelis was engaged by the City of El Centro (City) to conduct a water and wastewater rate study. As the lead consultant, Summer performed analyses on the City's billing and financial data to develop multiple financial planning options and cost of service models.

City of Roseville (CA): Water, Wastewater, and Recycled Water Cost-of-Service Study
Summer served as the lead consultant for the City of Roseville's water, wastewater, and recycled water utility cost-of-service. As the lead consultant, Summer performed analyses on the City's billing and financial data to develop financial planning and cost of service models.

City of Sacramento (CA): Water and Wastewater Rate Study
Raftelis was engaged by the City of Sacramento (City) to conduct a water and wastewater rate study. As the staff consultant, Summer is analyzing the City's billing and financial data to help develop financial planning and cost of service models.

City of Sacramento (CA): Water and Wastewater Fund Review
Raftelis was engaged by the City of Sacramento (City) to conduct a water and wastewater fund review. As the staff consultant, Summer conducted a historical analysis of the water and wastewater enterprise funds for the period 2014-2023. This allowed the City to understand how billed consumption, rate revenues, and costs, such as O&M and CIP, have changed over time. This historical analysis formed the basis for Summer's development of water and wastewater fund financial plans for a 25-year planning horizon ending in 2049.

Lake Hemet Municipal Water District (CA): Water and Wastewater Cost-of-Service and Financial Planning Study
Summer served as the lead consultant for an update of the Lake Hemet Municipal Water District's (District) water and wastewater financial plans and cost-of-service rates. As the lead consultant, Summer developed the financial models for three specific utilities operated by the District and conducted extensive analyses of the District's billing and financial data.

City of Grand Junction (CO): Water and Wastewater Cost-of-Service and Financial Planning Study
Raftelis was engaged by the City of Grand Junction (City) to conduct a water and wastewater rate study. As a staff consultant, Summer analyzed the City's billing and financial data to help develop financial planning and cost of service models.

City of Huntsville (TX): Water and Wastewater Cost-of-Service and Financial Planning Study
Raftelis was engaged by the City of Huntsville to conduct a water and wastewater cost-of-service and financial planning study. As a staff consultant, Summer has aided in the billing data analysis.

Bear Creek Special Utility District (TX): Water Financial Planning Study
Raftelis was engaged by The Bear Creek Special Utility District (District), a small water utility with limited resources facing unprecedented growth. As a staff consultant, Summer aided in developing a comprehensive financial plan to analyze the District's long-term cash flow projections and determine rates sufficient to finance their Water Master Plan.

Creedmoor-Maha Water Supply Corporation (TX): Cost-of-Service and Financial Planning Study
Raftelis was engaged by Creedmoor-Maha Water Supply Corporation. As lead consultant, Summer analyzed the billing and financial data to create a financial plan to ensure the utility could meet the forecasted operating and capital expenditures. Along with the financial plan, Summer created a rate design that explored many different options for lowering the number of tiers for the utility's usage charge.

Fort Collins-Loveland Water District (CO): Water and Wastewater Cost-of-Service and Financial Planning Study
Fort Collins-Loveland Water District engaged Raftelis to conduct a water and wastewater cost-of-service and financial planning study. Summer assisted as a staff consultant in the billing data and tap fee analysis.

Town of Erie (CO): Water, Wastewater, and Stormwater Cost-of-Service and Financial Planning Study
Summer is the staff consultant for updating the Town of Erie's water, wastewater, and stormwater financial plan and cost of service. As the staff consultant, Summer is analyzed the billing data and other financial data to update and make the appropriate changes to the models from the previous study.

APPENDIX B: CALIFORNIA EXPERIENCE

Appendix B: California Experience

CALIFORNIA EXPERIENCE

This table lists the California utilities that Raftelis has assisted over the past five years on financial, rate, and/or management consulting projects.

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial & Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development/Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
Alameda County Water District		●		●		●	●	●	●			
Anaheim, City of				●		●	●	●				
Arroyo Grande, City of				●		●	●	●				
Atwater, City of				●	●	●		●				
Bakersfield, City of		●		●		●		●				
Benicia, City of									●			
Beverly Hills, City of		●		●		●	●	●	●		●	
Borrego Water District			●	●		●						
Brea, City of				●		●		●				
Brentwood (CA), City of				●		●	●	●				
CAL FIRE/San Luis Obispo								●				
Calleguas Municipal Water District		●		●		●	●	●				
Camarillo, City of		●		●		●		●	●			
Carlsbad Municipal Water District		●		●		●	●	●				
Casitas Municipal Water District				●		●		●				
Castaic Lake Water Agency			●	●		●	●	●	●			
Central Basin Municipal Water District		●		●			●	●				
Central Contra Costa Sanitary District				●		●		●				
Channel Islands Beach Community Services District				●		●		●				
Chino Hills, City of				●		●		●				
Chino, City of				●		●		●				
Chowchilla, City of				●		●	●	●				
Corona, City of						●			●			
County of San Diego				●				●		●		
Crescenta Valley Water District				●		●		●				
Cucamonga Valley Water District				●		●						
Del Mar Union School District		●										
Delta Diablo Sanitation District											●	
East Bay Municipal Utility District				●				●	●			
East Orange County Water District				●		●		●	●			
East Valley Water District				●		●	●	●				
Eastern Municipal Water District				●								
El Toro Water District				●		●		●				
Elk Grove Water District	●			●		●	●	●	●			
Elsinore Valley Municipal Water District				●		●			●			
Escondido, City of		●		●		●	●	●	●			
Galt, City of		●		●		●		●	●			
Glendora, City of						●						
Goleta Water District				●		●	●	●				
Goleta West Sanitary District			●	●		●	●	●	●			
Helix Water District				●		●		●				
Henderson, City of				●		●		●	●			
Hollister, City of				●		●		●	●			
Holtville, City of				●				●				
Huntington Beach, City of				●		●	●	●				
Imperial County				●		●		●				
Inland Empire Utilities Agency				●								

CALIFORNIA EXPERIENCE

This table lists the California utilities that Raftelis has assisted over the past five years on financial, rate, and/or management consulting projects.

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial & Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development/Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
Irvine Unified School District		●										
Jurupa Community Services District				●		●	●	●				
Kern County Water Agency					●							
La Canada Irrigation District				●		●		●				
La Habra Heights County Water District				●		●	●	●	●			
Laguna Beach, City of				●								
Lake Valley Fire Protection District				●			●	●				
Las Virgenes Municipal Water District				●		●		●				
Leucadia Wastewater District				●		●						
Livermore, City of				●		●		●	●			
Long Beach City of	●	●		●		●		●				
Los Alamos Community Services District		●		●		●		●	●			
Los Angeles Department of Water and						●		●				
Los Angeles, City of Bureau of Sanitation					●							
Madera, City of		●		●								
Mammoth Community Water District				●		●		●				
Marin Municipal Water District					●							
Merced, City of				●		●		●	●			
Mesa Water District				●				●				
Metropolitan Water District of Southern California			●									
Modesto Irrigation District						●		●				
Mojave Water Agency				●		●	●					
Monterey County Water Resources Agency				●		●		●				
Monterey, City of		●		●		●	●					
Moulton Niguel Water District									●			
Municipal Water District of Orange County					●			●				
Napa Sanitation District				●		●		●				
Ojai Valley Sanitary District				●		●		●				
Olivenhain Municipal Water District				●		●	●					
Ontario Municipal Utilities Company								●				
Ontario, City of				●		●	●	●				
Orange, City of				●		●		●				
Palo Alto, City of				●		●	●	●				
Phelan Pinon Hills Community Services	●			●		●		●	●			
Placer County Water Agency					●			●				
Pleasant Hill Recreation & Park District				●				●				
Pomona, City of				●		●		●	●			
Rainbow Municipal Water District				●		●	●	●				
Ramona Municipal Water District				●		●		●				
Rancho California Water District						●	●	●	●			
Redlands, City of				●		●	●	●	●			
Rincon del Diablo Municipal Water District				●		●		●				
Riverside Public Utilities				●		●	●	●	●			
Roseville, City of		●		●					●			
Sacramento Regional County Sanitation District						●						
Sacramento, City of				●		●		●				

CALIFORNIA EXPERIENCE

This table lists the California utilities that Raftelis has assisted over the past five years on financial, rate, and/or management consulting projects.

Client	Affordability Analysis & Program Development	Debt Issuance Support	Dispute Resolution	Financial & Capital Improvements Planning	Rate Case Support	Rate Design	Risk Analysis	Cost of Service	Development/Impact Fees	Stormwater Utility Development	Organizational Optimization	Water/Wastewater Utility Valuation
Salton Community Services District				●				●				
San Bernardino Valley Municipal Water						●						
San Bernardino, County of				●		●		●	●			
San Clemente, City of				●		●	●	●				
San Diego, City of Public Utilities		●	●	●		●	●	●	●			
San Dieguito Water District				●		●		●				
San Elijo Joint Powers Authority				●	●	●	●	●	●			
San Gabriel County Water District				●		●		●				
San Gabriel, City of				●		●		●				
San Jose, City of								●				
San Juan Capistrano, City of				●		●	●	●	●			
Santa Ana, City of								●				
Santa Barbara, City of				●		●	●	●	●			
Santa Clara Valley Water District			●	●	●							
Santa Clarita Water District		●		●		●	●	●	●			
Santa Cruz, City of				●		●	●	●				
Santa Fe Irrigation District				●		●	●	●	●			
Santa Fe Springs, City of				●		●		●				
Santa Margarita Water District				●		●	●	●				
Santa Rosa, City Attorney's Office									●			
Scotts Valley Water District		●		●		●	●	●	●			
Shafter, City of				●		●		●				
Shasta Lake, City of				●		●	●	●				
Sierra Madre, City of	●			●		●		●				
Signal Hill, City of				●		●		●				
Simi Valley, City of				●		●	●	●	●			
Sonoma, City of				●		●		●				
South Mesa Water Company				●		●	●	●				
South Pasadena, City of				●		●		●				
South San Francisco, City of				●				●				
Sunnyslope County Water District				●		●	●	●	●			
Sweetwater Authority				●		●		●				
Temescal Valley Water District				●		●		●	●			
Thousand Oaks, City of				●		●	●	●	●			
Torrance, City of				●		●		●				
Trabuco Canyon Water District				●		●		●				
Triunfo Sanitation District				●		●		●				
Tustin, City of				●		●		●				
Union Sanitary District				●		●	●	●	●			
Ventura Regional Sanitation District				●		●		●				
Ventura, City of	●	●	●	●	●	●	●	●	●			
Vista, City of				●		●			●			
Walnut Valley Water District				●		●		●				
Watsonville, City of	●			●		●	●	●				
West Basin Municipal Water District				●		●	●	●				
Western Municipal Water District				●		●		●	●			
Yorba Linda Water District				●		●		●				
Zone 7 Water Agency				●		●		●				

APPENDIX C: SAMPLE REPORT

Appendix C: Sample Report

San Bernardino Municipal Water Department

Comprehensive Cost of Services and Rate Structure Study

Report / March 27, 2026

RAFTELIS

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RAFTELIS

March 27, 2026

Ms. Cynthia Mouser
Director of Finance
City of San Bernardino Municipal Water Department
397 Chandler Place
San Bernardino, CA 92408

Subject: Comprehensive Cost of Services and Rate Structure Study Report

Dear Ms. Mouser,

Raftelis is pleased to provide this report for the San Bernardino Municipal Water Department's (Department) Comprehensive Cost of Services and Rate Structure Study. The high-level objectives for the study included the development of:

- Water and wastewater financial plans that quantify the amount of rate revenues that must be collected from customers during the five-year period FY 2027 - FY 2031.
- Water and wastewater cost of service studies that quantify the amount of rate revenues that must be collected from each customer class based on their unique demand characteristics.
- Proposed water and wastewater rates for the five-year period FY 2027 - FY 2031.

The report discusses, in comprehensive detail, our key findings and recommendations for each of the above-listed items. It has been a pleasure working with you and other members of the Department's staff. Thank you for your support throughout this study.

Sincerely,

John Wright
Senior Manager

Brian Bass
Manager

611 Wilshire Boulevard, Suite 900
Los Angeles, CA 90017
www.raftelis.com

Table of Contents

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1. Executive Summary

1.1. Study Objectives

The San Bernardino Municipal Water Department (Department) retained Raftelis to complete a Comprehensive Cost of Services and Rate Design Study (study). The study included developing water and wastewater financial plans, completing water and wastewater cost of service (COS) analyses, developing proposed rate structure modifications, and preparing proposed water and wastewater rates for the period FY 2027 - FY 2031.

1.2. Study Findings and Recommendations

1.2.1. WATER FINANCIAL PLAN

The Department's water utility incurs all of the costs necessary to provide potable water service to customers. If the Department's current water rates remain unchanged, projected revenues will be insufficient to meet the water utility's annual revenue requirements during FY 2027 - FY 2031. Table 1-1 summarizes the proposed water revenue adjustments.

Table 1-1: Proposed Water Revenue Adjustments

Line	Year	Effective Date	Revenue Increase
1	FY 2027	July	6.25%
2	FY 2028	July	6.25%
3	FY 2029	July	6.25%
4	FY 2030	July	6.25%
5	FY 2031	July	5.00%

Figure 1-1 provides a graphical representation of the water utility financial plan for the period FY 2027 - FY 2031.

Figure 1-1: FY 2027 – FY 2031 Water Utility Financing Plan

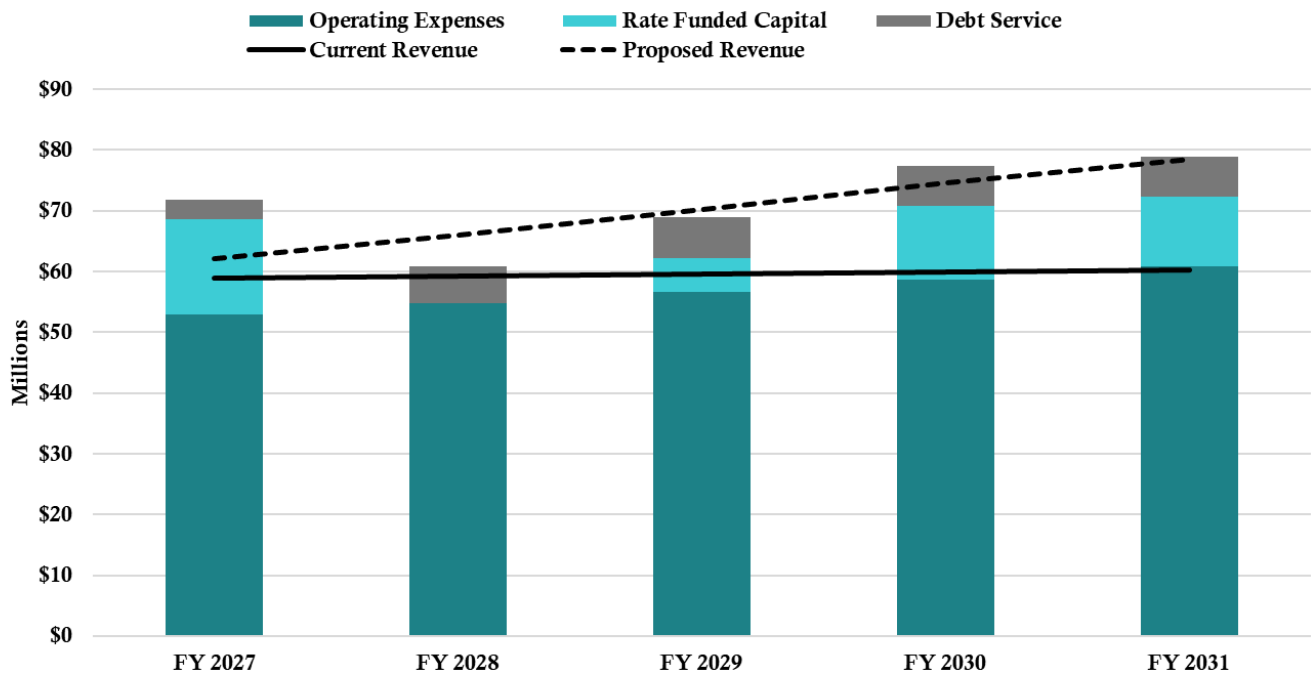
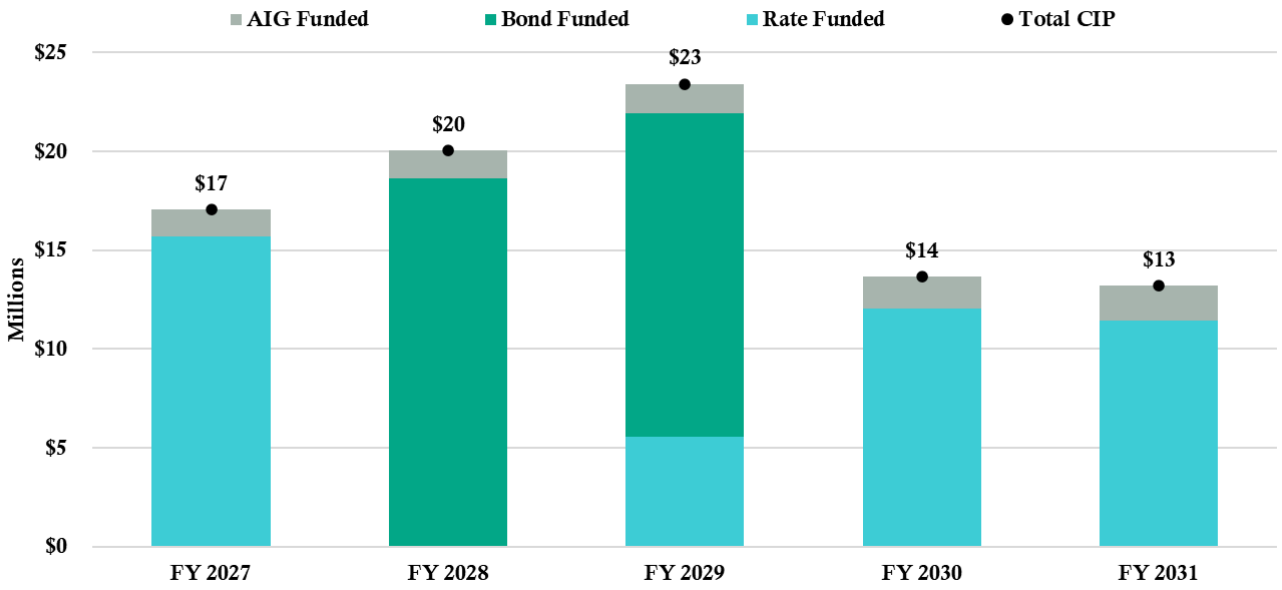


Figure 1-2 provides a graphical representation of the water utility capital financing plan for this same period. The Department plans to issue a $35 million bond in FY 2028, as shown in Figure 1-2.

Figure 1-2: Water Utility Capital Financing Plan ($ Millions)



1.2.2. WATER COST OF SERVICE ANALYSIS

The COS analysis is a method of allocating the annual revenue requirement from rates developed in the financial plan to customer classes based on the principle of cost causation. Customer classes are assigned costs based on the

demands each customer class imposes on the water utility system. Table 1-2 shows the outcome of the FY 2027 COS analysis. The FY 2027 water utility COS revenue requirement is $55,531,833 (line 9), which is 6.25% more than the projected FY 2027 revenues of $52,265,255 if existing rates remain unchanged. COS rate reductions for irrigation, institutional, and fire service customer classes reflect a decline in their extra capacity demands over the past three years compared to the previous COS analysis.

Table 1-2: FY 2027 Water COS Summary

Line	Customer Class	FY 2027 COS	Revenue at Existing Rates	Difference %	Difference $
1	Single Family	$26,905,244	$23,704,091	13.50%	$3,201,153
2	Multi-Family	$7,203,342	$6,488,398	11.02%	$714,944
3	Commercial	$8,479,158	$8,017,483	5.76%	$461,675
4	Irrigation	$9,006,792	$10,025,655	-10.16%	-$1,018,863
5	Institutional	$2,883,284	$2,984,852	-3.40%	-$101,567
6	Other (All Consumption)	$544,682	$516,247	5.51%	$28,435
7	Golf Course	$3,843	$1,957	96.36%	$1,886
8	Fire Service	$505,488	$526,573	-4.00%	-$21,085
9	Total	$55,531,833	$52,265,255	6.25%	$3,266,578

1.2.3. EXISTING WATER RATES

As shown in Table 1-3 through Table 1-5, the Department has a water rate structure that includes monthly fixed charges based on meter size and separate commodity rates, which are based on the amount of water used, measured in hundred cubic feet (HCF).

Table 1-3: Existing Monthly Service Charges

Meter Charge	Charge ($/month)
5/8" or 1/2"	$23.97
3/4"	$32.98
1"	$50.91
1 1/2"	$95.77
2"	$149.62
3"	$454.70
4"	$903.35
6"	$1,441.73
8"	$2,518.50
10"	$4,941.21
12"	$4,941.21

Table 1-4: Existing Commodity Rates

Customer Class	Rate ($/HCF)
Single Family	
Tier 1	$1.60
Tier 2	$2.16
Tier 3	$2.73
Multi-Family	$1.80
Commercial	$1.94
Irrigation	$2.72
Institutional	$2.43
Other (All Consumption)	$4.49

Table 1-5: Existing Private Fire Charges

Meter Charge	Charge ($/month)
1"	$6.12
1 1/2"	$6.24
2"	$6.45
3"	$7.25
4"	$8.60
6"	$13.44
8"	$21.82
10"	$34.43
12"	$51.90

1.2.4. PROPOSED WATER RATES

The Department decided to keep the existing rate structure, and the proposed water rates are shown in Table 1-6 through Table 1-8. The water rates for FY 2027 were adjusted based on the COS results, and the rates for FY 2028 through FY 2031 reflect an across-the-board rate increase.

Table 1-6: Proposed Water Monthly Service Charges for FY 2027 - FY 2031 ($/month)

Meter Charge ($/month)	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
5/8" or 1/2"	$28.66	$30.46	$32.37	$34.40	$36.12
3/4"	$39.02	$41.46	$44.06	$46.82	$49.17
1"	$59.74	$63.48	$67.45	$71.67	$75.26
1 1/2"	$111.53	$118.51	$125.92	$133.79	$140.48
2"	$173.69	$184.55	$196.09	$208.35	$218.77
3"	$525.90	$558.78	$593.71	$630.82	$662.37
4"	$1,043.86	$1,109.11	$1,178.43	$1,252.09	$1,314.70
6"	$1,665.41	$1,769.51	$1,880.11	$1,997.62	$2,097.51
8"	$2,908.52	$3,090.30	$3,283.45	$3,488.67	$3,663.11
10"	$5,705.50	$6,062.10	$6,440.99	$6,843.56	$7,185.74
12"	$5,705.50	$6,062.10	$6,440.99	$6,843.56	$7,185.74

Table 1-7: Proposed Water Commodity Rates for FY 2027 - FY 2031 ($/HCF)

Customer Class Rates ($/HCF)	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Single Family					
Tier 1	$1.71	$1.82	$1.94	$2.07	$2.18
Tier 2	$2.29	$2.44	$2.60	$2.77	$2.91
Tier 3	$3.10	$3.30	$3.51	$3.73	$3.92
Multi-Family	$1.87	$2.00	$2.13	$2.27	$2.39
Commercial	$1.83	$1.95	$2.08	$2.21	$2.33
Irrigation	$2.25	$2.39	$2.54	$2.70	$2.84
Institutional	$2.08	$2.22	$2.36	$2.51	$2.64
Other (All Consumption)	$3.12	$3.32	$3.53	$3.76	$3.95

Table 1-8: Proposed Private Fire Monthly Charges for FY 2027 - FY 2031 ($/month)

Meter Charge ($/month)	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1"	$7.99	$8.49	$9.03	$9.60	$10.08
1 1/2"	$8.08	$8.59	$9.13	$9.71	$10.20
2"	$8.23	$8.75	$9.30	$9.89	$10.39
3"	$8.77	$9.32	$9.91	$10.53	$11.06
4"	$9.70	$10.31	$10.96	$11.65	$12.24
6"	$13.04	$13.86	$14.73	$15.66	$16.45
8"	$18.80	$19.98	$21.23	$22.56	$23.69
10"	$27.46	$29.18	$31.01	$32.95	$34.60
12"	$39.47	$41.94	$44.57	$47.36	$49.73

1.2.5. WASTEWATER FINANCIAL PLAN

The Department's wastewater utility incurs all the costs necessary to provide wastewater service to customers. If the Department's current wastewater rates remain unchanged, projected revenues will be inadequate to meet the wastewater utility's annual revenue requirements during the period FY 2027 - FY 2031. Table 1-9 summarizes the recommended revenue adjustments.

Table 1-9: Proposed Wastewater Revenue Adjustments

Line	Year	Effective Date	Revenue Increase
1	FY 2027	July	7.0%
2	FY 2028	July	7.0%
3	FY 2029	July	7.0%
4	FY 2030	July	6.0%
5	FY 2031	July	5.0%

Figure 1-3 provides a high-level summary of the wastewater utility financial plan for the period FY 2027 - FY 2031. Figure 1-4 provides a graphical representation of the wastewater utility capital financing plan for the period FY 2027 - FY 2032.

Figure 1-3: FY 2027 – FY 2031 Wastewater Utility Financial Plan

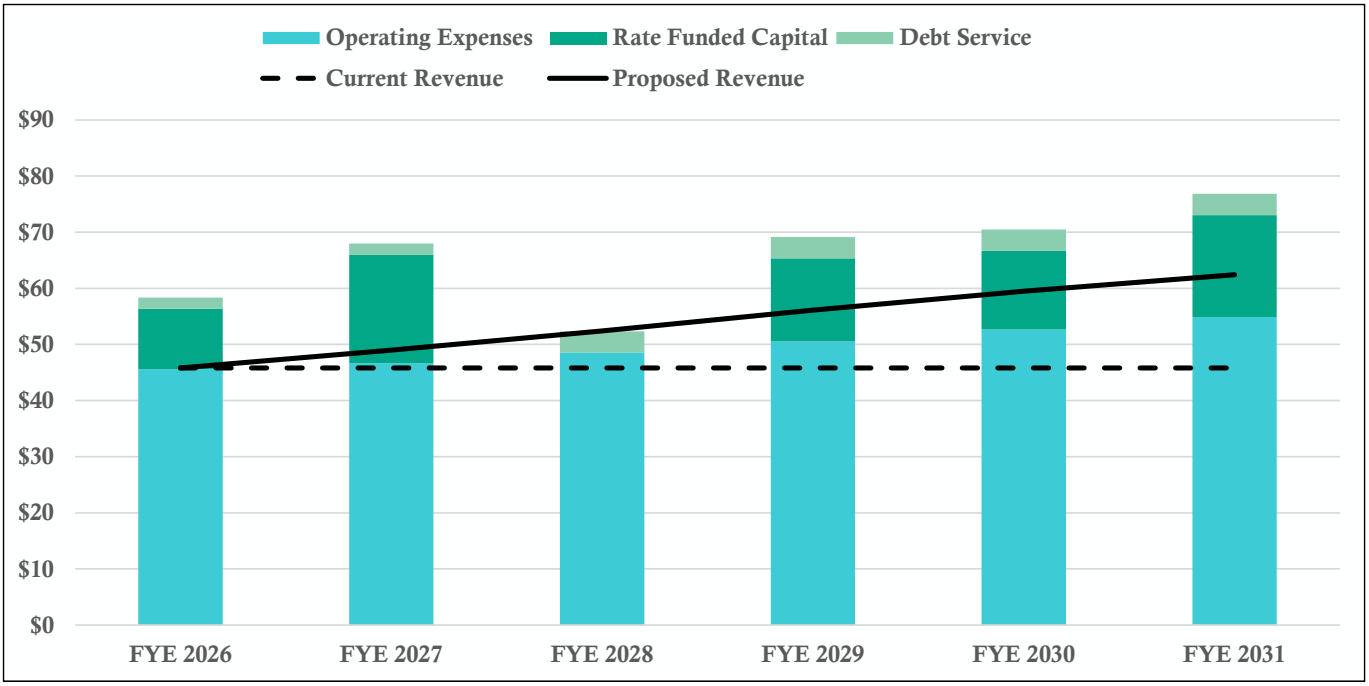
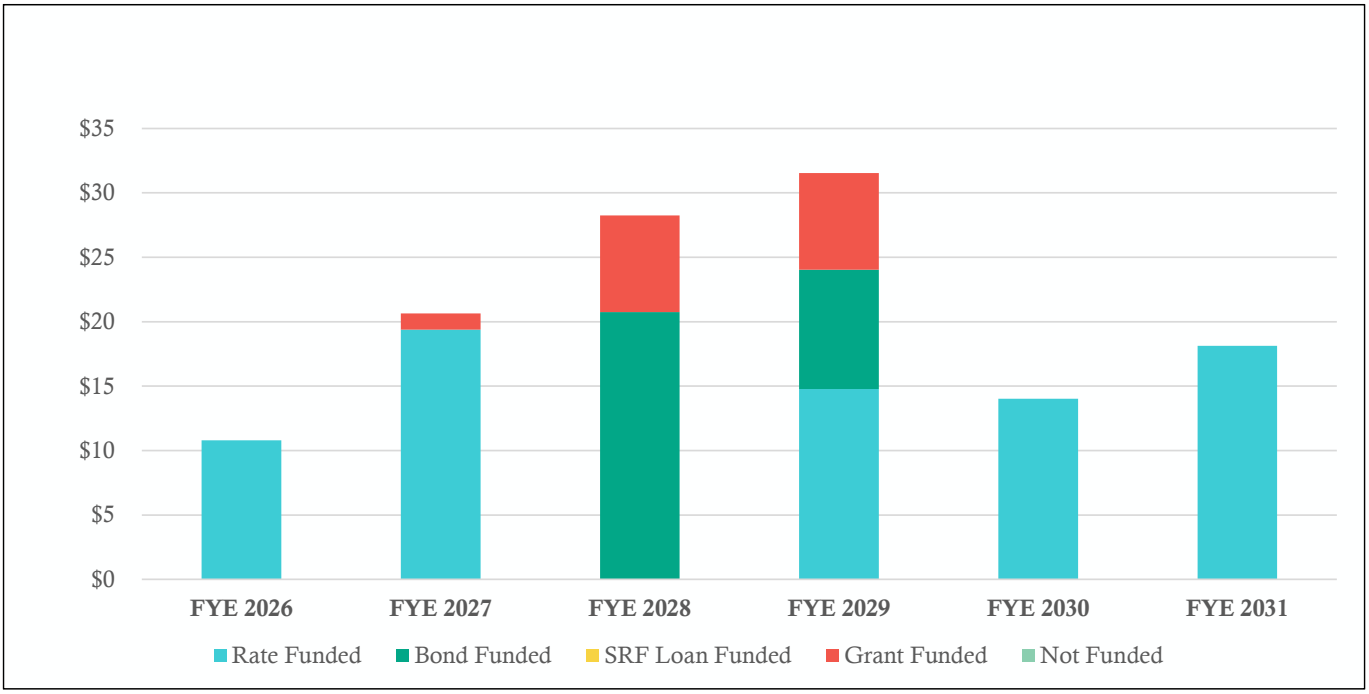


Figure 1-4: Wastewater Utility Capital Financing Plan ($ Millions)



1.2.6. WASTEWATER COST OF SERVICE ANALYSIS

The COS analysis is a method of allocating the annual revenue requirement from rates developed in the financial plan to customer classes based on the principle of cost causation. Customer classes are assigned costs based on the demands each customer class imposes on the wastewater utility system. Table 1-10 shows a summarized version of the outcome of the FY 2027 COS analysis. The FY 2027 COS revenue requirement is $48,996,894 (line 54). This is 7.0% more than projected FY 2027 revenues if existing rates remain unchanged. COS rate increases or reductions shown for various types of customers reflect changes in demand characteristics over the past three years as

compared to the previous COS analysis. A more detailed version of the outcome of the COS analysis is presented later in this report.

Table 1-10: FY 2027 Wastewater COS Summary

Line	Customer Class	Revenue at Existing Rates	FY 2027 COS	Difference $	Difference %
1	**San Bernardino (Inside City)**				
2	Residential	$21,557,279	$21,681,638	$124,359	0.6%
3	Multi-Family (2 Units)	$1,626,781	$1,520,135	($106,645)	-6.6%
4	Multi-Family (3 Units)	$742,034	$710,602	($31,433)	-4.2%
5	Total Residential	$23,926,094	$23,912,375	($13,719)	-0.1%
6					
7	Low Strength				
8	Laundromats	$214,168	$246,372	$32,205	15.0%
9	Schools, Churches, Nursery Schools	$981,096	$916,992	($64,104)	-6.5%
10	Total Low Strength	$1,195,263	$1,163,364	($31,900)	-2.7%
11					
12	Medium Strength				
13	Mutli-Family, Mobile Home Parks (4 or more units)	$6,837,293	$7,307,375	$470,081	6.9%
14	Retail, Commerical, Light Industrial	$806,151	$4,128,851	$3,322,700	412.2%
15	Auto Repair, Car Wash	$2,006,271	$523,380	($1,482,892)	-73.9%
16	Office, Motels (without Restaurants)	$797,355	$2,605,239	$1,807,884	226.7%
17	Hospitals, Convalescent Homes	$2,966,216	$693,164	($2,273,052)	-76.6%
18	Total Medium Strength	$13,413,287	$15,258,008	$1,844,721	13.8%
19					
20	High Strength				
21	Restaurants, Hotels	$1,609,539	$1,710,140	$100,601	6.3%
22	Total High Strength	$1,609,539	$1,710,140	$100,601	6.3%
23					
24	Domestic Liquid Waste	$494,318	$688,305	$193,987	39.2%
25	Industrial	$2,633,344	$2,807,926	$174,582	6.6%
26	Total Inside City	$43,271,846	$45,540,118	$2,268,273	5.2%
27					
28	**Loma Linda (Outside City)**				
29	Residential	$829,442	$1,394,221	$564,780	68.1%
30	Multi-Family (2 Units)	$60,718	$93,999	$33,281	54.8%
31	Multi-Family (3 Units)	$27,373	$44,339	$16,966	62.0%
32	Total Residential	$917,532	$1,532,559	$615,026	67.0%
33					
34	Low Strength				
35	Laundromats	$12,681	$11,809	($872)	-6.9%
36	Schools, Churches, Nursery Schools	$27,032	$19,636	($7,397)	-27.4%
37	Total Low Strength	$39,714	$31,445	($8,269)	-20.8%
38					
39	Medium Strength				
40	Mutli-Family, Mobile Home Parks (4 or more units)	$1,004,821	$1,103,483	$98,662	9.8%
41	Retail, Commerical, Light Industrial	$148,357	$194,826	$46,469	31.3%
42	Auto Repair, Car Wash	$24,303	$28,641	$4,339	17.9%
43	Office, Motels (without Restaurants)	$51,701	$66,980	$15,278	29.6%
44	Hospitals, Convalescent Homes	$146,096	$165,345	$19,249	13.2%
45	Hospitals, Convalescent Homes - 20%	$118,608	$241,227	$122,619	103.4%
46	Total Medium Strength	$1,493,886	$1,800,501	$306,615	20.5%
47					
48	High Strength				
49	Restaurants, Hotels	$72,082	$92,271	$20,188	28.0%
50	Total High Strength	$72,082	$92,271	$20,188	28.0%
51					
52	Total Loma Linda	$2,523,214	$3,456,776	$933,561	37.0%
53					
54	Total System	$45,795,060	$48,996,894	$3,201,834	7.0%

Table 1-11 shows existing wastewater rates that are currently effective in FY 2026.

Table 1-11: Existing Wastewater Rates

Line	Customer Class	Commodity Rates ($/HCF)	Fixed Charges ($/Month)
1	**San Bernardino (Inside City)**		
2	Residential	N/A	$52.90
3	Multi-Family (2 Units)	N/A	$105.80
4	Multi-Family (3 Units)	N/A	$158.69
5			
6	Low Strength		
7	Laundromats	$3.01	$23.16
8	Schools, Churches, Nursery Schools	$3.01	$23.16
9			
10	Medium Strength		
11	Mutli-Family, Mobile Home Parks (4 or more units)	$3.79	$23.16
12	Retail, Commerical, Light Industrial	$3.79	$23.16
13	Auto Repair, Car Wash	$3.79	$23.16
14	Office, Motels (without Restaurants)	$3.79	$23.16
15	Hospitals, Convalescent Homes	$3.79	$23.16
16			
17	High Strength		
18	Restaurants, Hotels	$8.98	$23.16
19			
20	Domestic Liquid Waste ($/Gallon)	0.0998	N/A
21			
22	Industrial		
23	Flow ($/MG)	$1,986.72	$23.16
24	Biochemical Oxygen Demand ($/1,000 lbs)	$906.48	
25	Total Suspended Solids ($/1,000 lbs)	$906.78	
26			
27	**Loma Linda (Outside City)**		
28	Residential	N/A	$29.39
29	Multi-Family (2 Units)	N/A	$58.79
30	Multi-Family (3 Units)	N/A	$88.18
31			
32	Low Strength		
33	Laundromats	$2.18	$8.39
34	Schools, Churches, Nursery Schools	$2.18	$8.39
35			
36	Medium Strength		
37	Mutli-Family, Mobile Home Parks (4 or more units)	$2.61	$8.39
38	Retail, Commerical, Light Industrial	$2.61	$8.39
39	Auto Repair, Car Wash	$2.61	$8.39
40	Office, Motels (without Restaurants)	$2.61	$8.39
41	Hospitals, Convalescent Homes	$2.61	$8.39
42	Hospitals, Convalescent Homes - 20%	$1.62	$8.39
43			
44	High Strength		
45	Restaurants, Hotels	$6.53	$8.39

1.2.7. PROPOSED WASTEWATER RATES

The Department plans no change in its existing wastewater rate structure during the period FY 2027 through FY 2031. Proposed rates for FY2027 – FY 2031 are shown in Table 1-12.

Table 1-12: Proposed San Bernardino Wastewater Rates for FY 2027 - FY 2031

Line	Customer Class	Existing	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	**San Bernardino Fixed Charges ($/Month)**						
2	Residential	$52.90	$54.05	$57.84	$61.31	$64.37	$67.59
3	Multi-Family (2 Units)	$105.80	$108.11	$115.67	$122.61	$128.74	$135.18
4	Multi-Family (3 Units)	$158.69	$162.16	$173.51	$183.92	$193.12	$202.77
5							
6	Low Strength						
7	Laundromats	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
8	Schools, Churches, Nursery Schools	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
9							
10	Medium Strength						
11	Mutli-Family, Mobile Home Parks (4 or more units)	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
12	Retail, Commerical, Light Industrial	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
13	Auto Repair, Car Wash	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
14	Office, Motels (without Restaurants)	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
15	Hospitals, Convalescent Homes	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
16							
17	High Strength						
18	Restaurants, Hotels	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
19							
20	Industrial	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84
21							
22	**San Bernardino Commodity Rates ($/HCF)**						
23	Residential	N/A	N/A	N/A	N/A	N/A	N/A
24	Multi-Family (2 Units)	N/A	N/A	N/A	N/A	N/A	N/A
25	Multi-Family (3 Units)	N/A	N/A	N/A	N/A	N/A	N/A
26							
27	Low Strength						
28	Laundromats	$3.01	$2.84	$3.04	$3.22	$3.38	$3.55
29	Schools, Churches, Nursery Schools	$3.01	$2.84	$3.04	$3.22	$3.38	$3.55
30							
31	Medium Strength						
32	Mutli-Family, Mobile Home Parks (4 or more units)	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
33	Retail, Commerical, Light Industrial	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
34	Auto Repair, Car Wash	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
35	Office, Motels (without Restaurants)	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
36	Hospitals, Convalescent Homes	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
37							
38	High Strength						
39	Restaurants, Hotels	$8.98	$9.52	$10.19	$10.80	$11.34	$11.90
40							
41	Domestic Liquid Waste ($/Gallon)	$0.0998	$0.1500	$0.1605	$0.1701	$0.1786	$0.1876
42							
43	Industrial						
44	Flow ($/MG)	$1,986.72	$2,457.80	$2,629.85	$2,787.64	$2,927.02	$3,073.37
45	Biochemical Oxygen Demand ($/1,000 lbs)	$906.48	$939.87	$1,005.66	$1,066.00	$1,119.30	$1,175.27
46	Total Suspended Solids ($/1,000 lbs)	$906.78	$932.26	$997.52	$1,057.37	$1,110.24	$1,165.75

Table 1-13 presents the proposed Loma Linda wastewater rates for the period FY 2027 through FY 2031.

Table 1-13: Proposed Loma Linda Wastewater Rates for FY 2027 - FY 2031

Line	Customer Class	Existing	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	**Loma Linda Fixed Charges ($/Month)**						
2	Residential	$29.39	$31.06	$33.24	$35.56	$37.70	$39.58
3	Multi-Family (2 Units)	$58.79	$62.13	$66.47	$71.13	$75.39	$79.16
4	Multi-Family (3 Units)	$88.18	$93.19	$99.71	$106.69	$113.09	$118.75
5							
6	Low Strength						
7	Laundromats	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
8	Schools, Churches, Nursery Schools	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
9							
10	Medium Strength						
11	Mutli-Family, Mobile Home Parks (4 or more units)	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
12	Retail, Commerical, Light Industrial	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
13	Auto Repair, Car Wash	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
14	Office, Motels (without Restaurants)	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
15	Hospitals, Convalescent Homes	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
16	Hospitals, Convalescent Homes - 20%	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
17							
18	High Strength						
19	Restaurants, Hotels	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87
20							
21	**Loma Linda Commodity Rates ($/HCF)**						
22	Residential	N/A	N/A	N/A	N/A	N/A	N/A
23	Multi-Family (2 Units)	N/A	N/A	N/A	N/A	N/A	N/A
24	Multi-Family (3 Units)	N/A	N/A	N/A	N/A	N/A	N/A
25							
26	Low Strength						
27	Laundromats	$2.18	$1.66	$1.78	$1.90	$2.01	$2.12
28	Schools, Churches, Nursery Schools	$2.18	$1.66	$1.78	$1.90	$2.01	$2.12
29							
30	Medium Strength						
31	Mutli-Family, Mobile Home Parks (4 or more units)	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
32	Retail, Commerical, Light Industrial	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
33	Auto Repair, Car Wash	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
34	Office, Motels (without Restaurants)	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
35	Hospitals, Convalescent Homes	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
36	Hospitals, Convalescent Homes - 20%	$1.62	----	----	----	----	----
37							
38	High Strength						
39	Restaurants, Hotels	$6.53	$8.38	$8.97	$9.59	$10.17	$10.68

2. Introduction

2.1. Study Background

2.1.1. DEPARTMENT SERVICE TERRITORY

The Department was formed as a municipal utility by Article 9 of the City of San Bernardino Charter, as adopted on January 6, 1905. The Department's potable water service area encompasses approximately 45 square miles of the City's 62 square miles and serves water to roughly 200,000 people throughout both the City of San Bernardino and the unincorporated areas of San Bernardino County. The Department's service area is bounded by the San Bernardino National Forest and Devore Water Company to the north, by East Valley Water District (EVWD) and Redlands Municipal Utilities Department to the east, by the cities of Loma Linda and Colton to the south, and by West Valley Water District, the City of Rialto, and the Muscoy Mutual Water Company to the west.

2.1.2. WATER SUPPLY

Based on an analysis of billing data provided by the Department's staff, Raftelis estimates that the Department's potable water demand in FY 2025 was approximately 14.7 million HCF (or 33,800 acre-feet). As discussed in the Department's 2024 Water Master Plan, the Department relies solely on groundwater extracted from the underlying Bunker Hill Basin aquifer to meet its demands. The Department incurs operational expenses to extract groundwater from the Bunker Hill groundwater and to ensure its reliability.

The Department does not currently serve customers with recycled water. However, the Department's Water Reclamation Division is actively pursuing a recycled water project (Tertiary Treatment System or TTS) to treat effluent from the San Bernardino Water Reclamation Plant to a quality approved for recharge of the Bunker Hill Groundwater Basin.

The TTS is also designed to produce recycled water effluent of a quality approved for direct non-potable use and to convey tertiary-treated recycled water to customers who can benefit from a non-potable water supply. In the future, the Department is projected to continue receiving the majority of its water supply from groundwater. However, beginning in 2030, recycled water is expected to augment the groundwater to complete the future water supply portfolio.

2.1.3. WATER SYSTEM INFRASTRUCTURE

As described in the 2024 Water Master Plan, the Department's water transmission and distribution system consists of pipelines, storage reservoirs, pumping stations, hydroelectric generating stations, manual and automatic control valves, fire hydrants, and water meters located throughout the various individual pressure zones. The Department has more than 700 miles of pipeline, ranging in diameter from 2 to 78 inches, approximately 45,000 metered water services, 13,800 valves, and 5,500 fire hydrants. The existing distribution system includes storage reservoirs and forebay tanks, with a total tank storage capacity of 127 million gallons. These reservoirs vary in size from 40,000 gallons to 12 million gallons and are located throughout many of the pressure zones.

2.1.4. WASTEWATER SYSTEM INFRASTRUCTURE

The Department provides wastewater services to most of the City of San Bernardino. EVWD serves the eastern portion of the City. As discussed in the Department's 2019 Sewer Master Plan Update (dated March 2020 but referred to as the 2019 Sewer Master Plan Update), the Water Reclamation Plant (WRP) was constructed in 1958 and is a 33 million gallons per day (MGD) Regional Secondary Treatment facility that provides wastewater treatment services for the Cities of San Bernardino and Loma Linda, the San Bernardino International Airport,

Patton State Hospital, and areas of unincorporated San Bernardino County. The existing wastewater collection system consists of 493 miles of pipes, 15 active lift stations, 12 siphons, and approximately 38,300 wastewater connections.

2.2. Study Objectives

The Department retained Raftelis under a professional services agreement executed on October 16, 2025. The Department's objectives for the study included:

- The preparation of water and wastewater financial plans for the five-year period FY 2027 - FY 2031. The purpose of the financial plans is to determine the revenue required to cover projected operations and maintenance (O&M) expenses, debt service payments, and rate-funded capital expenditures. This amount is referred to as the revenue requirement from rates.

- The preparation of water and wastewater COS studies using industry-standard cost allocation principles. The purpose of the COS studies is to quantify the rate revenue that must be collected from each customer class based on their unique demand characteristics. The COS analysis is completed for compliance with the requirements of Proposition 218.

- The development of proposed water and wastewater rates for the five-year period FY 2027 - FY 2031. These projected rates are determined in accordance with the intent of Proposition 218 and other applicable California regulatory requirements.

2.3. Report Contents

This report contains the following sections:

- **Section 1: Executive Summary**. Summarizes the study results for the water and wastewater financial plans, COS analysis, and rate design.

- **Section 2: Study Background**. Provides an overview and purpose of the study as well as key components of the study process.

- **Section 3: Water Financial Plan**: Discussion of the development of the water financial plan, including a discussion of operating expenses, capital expenditures, debt service, cash reserve requirements, debt service coverage requirements, and the annual revenue requirement from rates.

- **Section 4: Water COS Analysis**. Discussion of the process used to functionalize, allocate, and distribute the annual water rate revenue requirement to customer classes.

- **Section 5: Water Rate Design**. Discussion of the process of developing the proposed water rates. This section also includes the FY 2027 customer bill impacts.

- **Section 6: Wholesale Water Rate**. Discussion of the process of developing the proposed wholesale water rates.
- **Section 7: Geothermal Water Rate**. Discussion of the process of developing the proposed geothermal water rates.

- **Section 8: Wastewater Financial Plan**. Discussion of the development of the wastewater financial plan, including a discussion of operating expenses, capital expenditures, debt service, cash reserve requirements, debt service coverage requirements, and the annual revenue requirement from rates.

- **Section 9: Wastewater COS Analysis**. Discussion of the process used to functionalize, allocate, and distribute the annual wastewater revenue requirement from rates to customer classes.

- **Section 10: Wastewater Rate Design**. Details the process of developing the proposed wastewater rates. This includes calculating the selected FY 2027 customer bill impacts under the proposed wastewater rates.

2.4. The Rate Setting Process

The rate setting process includes the following key steps:

- **Revenue Requirement Determination**: The rate-making process starts by determining the "test-year" (rate-setting year) revenue requirement from rates. The revenue requirement should sufficiently fund the utility's O&M, debt service, capital expenses, and other identified costs with funding to reserves (positive cash) or using reserves (negative cash), all based on a long-term financial plan.

- **COS Analysis**: The annual cost of providing water and wastewater service is distributed among customer classes in proportion to their service requirements. The City originally created its customer classes to recognize differences in service characteristics and demand patterns (i.e., residential customers differ from industrial customers). The COS analysis calculates cost responsibility for those classes based on their demand, thereby establishing a nexus between costs and rates. A COS analysis involves the following key steps:

    - **Assignment of Costs to Functions**: Examples of water system functions include storage, treatment, and distribution. Examples of wastewater system functions include collection, conveyance, and treatment.

    - **Allocation of Costs to Cost Causation Components:** Examples of water cost components include base demand, maximum day demand, and maximum hour demand. Examples of wastewater cost causation components include flow, biochemical oxygen demand, and suspended solids.

    - **Distribution of Costs to Customer Classes**: Costs are distributed to customer classes in proportion to the demands they place on the water and wastewater systems.

- **Rate Design and Proposed Rates**: The Department decided to keep the existing rate structures for water and wastewater, and a bill impact analysis was completed to show the impact of implementing cost-of-service-based changes for the test year and across-the-board rate increases for the remainder of the study period.

- **Rate Adoption Process**: Rate adoption is the last step of the rate-making process and is part of the procedural requirements of Proposition 218. Raftelis documents the rate study results in reports that serve as the utility's administrative record and as a public education tool about the proposed changes, their rationale and justifications, and their anticipated financial impacts.

2.5. Reliance on Data Provided by the Department

During the study, Department staff provided Raftelis with a variety of technical information, including demand, cost, and revenue data. Raftelis did not independently assess or test for the accuracy of such data, historic or projected. Raftelis has relied on this data in formulating our findings and subsequent recommendations, as well as in preparing this report. Raftelis also relied on cost allocation data provided by the Department as needed to complete the COS analysis. Table values shown throughout this report are rounded to the last digit shown and may therefore not match a precise calculation.

2.6. Largest 10% of Users

AB 755 passed in 2023 and is codified in Water Code, §§ 390 & 390.1. It requires the identification of the costs incurred to serve the largest 10 percent of the users served by the Department. Proposition 218 requires rates that allocate costs of service proportionately, not special rates for the top 10% of consumers regardless of other factors.

In FY 2027, total projected water accounts are 44,604; the top 10% of users represent 4,460 accounts and approximately 30.36% of total annual water use. These large users are primarily non-residential and multi-family accounts. Respectively, for wastewater, total FY 2027 projected accounts equal 39,520; the top 10% of users represent 3,952 accounts and approximately 25.66% of annual sewer use. These large users are primarily non-residential (such as educational buildings, office/motels, hospitals, etc.) and multi-family accounts.

It is our professional judgment that the water rates proposed in Tables 1-6, 1-7, and 1-8 equitably allocate the Department's water utility costs among the water service customers who create the costs. It is also our professional judgement that the wastewater rates proposed in Tables 1-12 and 1-13 equitably allocate the Department's wastewater utility costs among the wastewater service customers who create the costs.

3. Water Financial Plan

3.1.1. OVERVIEW OF THE FINANCIAL PLANNING PROCESS

This section describes the process used to develop the water utility financial plan for the period FY 2027 - FY 2031. The overarching objective of the financial planning process is to project the revenue requirement from rates (i.e., rate revenues that must be collected from customers) based on a utility's desired capital funding strategy. Key steps in the development of a water financial plan include:

- **Forecast of Billed Water Consumption (Demand Forecast)**: The demand forecast projects the level of billed water consumption for each customer class based on anticipated customer account growth and projected per-account water consumption.

- **Projection of Water Sales Revenues at Existing Rates**: This step in the financial planning process determines how much rate revenue will be earned from forecasted billed water consumption if there are no rate increases. This projected level of rate revenue can then be compared to projected expenditures to determine the annual funding shortfall (i.e., the difference between projected water sales revenues and projected expenditures) that must be met by the appropriate combination of rate revenue increases or debt financing.

- **Projection of Miscellaneous Non-Rate Revenue**: Miscellaneous non-rate revenue items can include interest income from cash reserves, grants, capacity fee receipts, and miscellaneous ancillary fees. Miscellaneous non-rate revenues help close the annual funding shortfall. Miscellaneous non-rate revenues also reduce the revenue requirement from rates (i.e., the amount of rate revenue that must be earned from customers).

- **Projection of Expenditures (O&M, Cash Funded CIP Expenditures, Debt Service Payments)**: This step in the financial planning process determines the level of expenditures that will be incurred by the utility to provide service during each year of the planning horizon. Projected expenditures are compared against projected water sales revenue at existing rates and projected miscellaneous non-rate revenue to determine the annual funding gap.

- **Identification of Cash Reserve and Debt Service Coverage Targets**: Utilities must not only have sufficient revenues to pay for projected expenditures, but they must also maintain prudent cash reserves and meet both contractually obligated and target debt service coverage requirements.

- **Determination of the Capital Financing Strategy**: In this final step in the financial planning process, the utility determines the optimal mix of annual rate revenue increases and debt financing to cover the funding shortfall.

3.1.2. PROJECTED BILLED WATER CONSUMPTION

The Statistical Section of the Department's Annual Comprehensive Financial Report for the Year Ending June 30, 2025, indicates that during the nine-year period from FY 2016 - FY 2025, the number of water service connections had a compound annual growth rate of 0.39%. Based on consultations with Department Staff, as shown in Table 3-1, a 1.0% annual increase in water customer accounts was assumed to align with the City’s budget procedures for the FY 2027 - FY 2031 planning horizon. Annual billed water consumption was projected to decrease by 0.5%

annually. The projected water consumption is calculated by multiplying the per-account consumption by the number of accounts, resulting in an annual growth rate of 0.5%, as shown in Table 3-1.

Table 3-1: Projected Account Growth and Billed Water Consumption

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Accounts by Meter Size					
2	5/8" or 1/2"	37,548	37,923	38,303	38,686	39,073
3	3/4"	2,732	2,759	2,786	2,814	2,842
4	1"	2,009	2,029	2,049	2,070	2,090
5	1 1/2"	975	985	995	1,005	1,015
6	2"	884	892	901	910	919
7	3"	278	280	283	286	289
8	4"	127	129	130	131	132
9	6"	29	29	29	30	30
10	8"	20	20	20	20	20
11	10"	2	2	2	2	2
12	12"	1	1	1	1	1
13	Total Accounts	44,604	45,050	45,501	45,956	46,415
14	Percent Change		1.0%	1.0%	1.0%	1.0%
15	Projected Billed Consumption (HCF)					
16	Single Family					
17	Tier 1 (0-13)	4,248,702	4,269,733	4,290,868	4,312,108	4,333,453
18	Tier 2 (14-23)	1,271,551	1,277,845	1,284,170	1,290,527	1,296,915
19	Tier 3 (>23)	1,115,061	1,120,581	1,126,128	1,131,702	1,137,304
20	Other					
21	Multi-Family	2,356,296	2,367,960	2,379,681	2,391,460	2,403,298
22	Commercial	2,533,002	2,545,541	2,558,141	2,570,804	2,583,529
23	Irrigation	3,031,398	3,046,403	3,061,483	3,076,637	3,091,866
24	Institutional	866,454	870,743	875,053	879,385	883,738
25	Other (All Consumption)	37,149	37,333	37,518	37,703	37,890
26	Golf Course	716	713	709	706	702
27	Fire Service	0	0	0	0	0
28	Total Use	15,460,329	15,536,851	15,613,751	15,691,032	15,768,695
29	Percent Change		0.5%	0.5%	0.5%	0.5%

3.1.3. PROJECTED REVENUES AT EXISTING RATES

Table 3-2 shows both projected water sales revenues at existing rates and projected miscellaneous non-rate revenues during the FY 2027 - FY 2031. The amounts shown in the Table 3-2 were calculated by multiplying the projected customer accounts and the billed water consumption shown in Table 3-1 by existing FY 2026 water rates and charges. The other revenues were held constant, and the earnings on fund balance were calculated using an interest rate of 1.0%.

Table 3-2: Projected Rate Revenues at Existing Rates

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Revenue from Rates	$52,265,255	$52,619,700	$52,976,882	$53,336,826	$53,699,556
2	Other Revenues					
3	Other Water Sales	$1,506,000	$1,506,000	$1,506,000	$1,506,000	$1,506,000
4	Other Revenues	$3,243,000	$3,243,000	$3,243,000	$3,243,000	$3,243,000
5	Capacity Fee Revenue	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
6	Earnings on Fund Balance	$374,232	$301,013	$245,223	$109,518	$0
7	Total Revenues	$58,888,487	$59,169,713	$59,471,106	$59,695,344	$59,948,556

3.1.4. PROJECTED O&M EXPENSES

Projected O&M expenses for the FY 2027 - FY 2031 were based on a starting point of the Department's FY 2026 budget. O&M expenses are projected forward using cost escalation factors that vary by cost type. These cost escalation factors were developed in consultation with Department Staff based on historical trends and assumed future increases. The projected O&M expenses are shown in Table 3-3.

Table 3-3: Projected O&M Expenses

Line	Division	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Water Board of Commissioners (1010)	$64,332	$67,910	$71,695	$75,700	$79,938
2	Administration / Gm Services (1020)	$697,051	$721,778	$747,453	$774,115	$801,805
3	Human Resources (1030)	$687,975	$710,663	$734,174	$758,542	$783,801
4	Information Technology (1040)	$1,691,645	$1,742,870	$1,795,784	$1,850,450	$1,906,931
5	Fleet (1050)	$950,607	$978,822	$1,007,926	$1,037,950	$1,068,925
6	Customer Service Admin (1100)	$545,487	$563,744	$582,669	$602,288	$622,630
7	Customer Service (1110)	$1,862,505	$1,935,437	$2,011,428	$2,090,613	$2,173,135
8	Customer Service Billing (1120)	$666,872	$689,370	$712,718	$736,953	$762,110
9	Field and Meter Services (1130)	$1,599,067	$1,660,010	$1,723,443	$1,789,474	$1,858,217
10	Water Conservation (1200)	$1,285,855	$1,321,750	$1,358,717	$1,396,790	$1,436,007
11	Finance / Purchasing (1400)	$1,610,423	$1,670,490	$1,732,974	$1,797,977	$1,865,609
12	Facility Maintenance (1500)	$554,119	$597,836	$645,185	$696,472	$752,030
13	Environment and Regulatory (2060)	$839,755	$871,511	$904,554	$938,940	$974,727
14	Water Quality / Backflow (2063)	$2,335,961	$2,420,293	$2,507,934	$2,599,024	$2,693,712
15	Water Administration (3010)	$905,039	$934,675	$965,379	$997,195	$1,030,166
16	Water Distribution Administration (3020)	$646,951	$672,322	$698,757	$726,303	$755,010
17	Water Distribution Service (3021)	$4,564,758	$4,727,328	$4,896,256	$5,071,814	$5,254,287
18	Water Distribution Maintenance (3023)	$3,540,425	$3,687,241	$3,840,983	$4,002,021	$4,170,752
19	Water Loss Management (3024)	$145,369	$150,781	$156,408	$162,261	$168,349
20	Water Operations Admin (3040)	$542,762	$563,739	$585,599	$608,381	$632,127
21	Water Operations Pumping (3041)	$11,141,472	$11,525,657	$11,927,051	$12,346,669	$12,785,600
22	Water Plants & Facilities Maintenance (3042)	$2,718,908	$2,809,299	$2,903,029	$3,000,237	$3,101,067
23	Water Specialized Cons (3043)	$1,588,440	$1,647,894	$1,709,782	$1,774,212	$1,841,296
24	Engineering (3060)	$1,819,803	$1,889,141	$1,961,339	$2,036,522	$2,114,826
25	Water General Adminstration (3090)	$8,373,406	$8,634,237	$8,905,080	$9,186,432	$9,478,814
26	Electric Instrumental & S (4070)	$1,498,712	$1,554,277	$1,612,080	$1,672,220	$1,734,798
27	Total	$52,877,699	$54,749,075	$56,698,396	$58,729,555	$60,846,671

3.1.5. PROJECTED CIP EXPENDITURES

CIP expenditures made by the Department are generally rate-funded and debt funded. Table 3-4 shows projected CIP expenditures for FY 2027 - FY 2031 as provided by the Department Staff. The amount of CIP shown on line 5 was reduced to 60% to reflect the number of projects the Department believes it can execute. Table 3-4 also

includes projections of how CIP expenditures will be funded. The mix of rate-funded and debt funded CIP reflects the Department's preferred capital financing strategy.

Table 3-4: Projected CIP Expenses

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	CIP Project Category					
2	Repair and Replacement Projects	$16,264,944	$16,640,450	$20,939,225	$14,560,481	$13,894,045
3	New Water System Asset Projects	$8,647,000	$13,275,000	$13,095,000	$3,940,000	$3,265,000
4	Other Funded Projects	$2,631,000	$1,525,000	$1,585,000	$1,645,000	$1,710,000
5	Total CIP	$27,542,944	$31,440,450	$35,619,225	$20,145,481	$18,869,045
6	**CIP Included in Financial Plan (60%)**	**$17,038,065**	**$20,051,983**	**$23,421,339**	**$13,657,259**	**$13,188,473**
7	CIP Funding Source					
8	Rate-Funded	$15,718,385	$0	$5,547,224	$12,041,522	$11,458,578
9	Consent Decree Funded	$1,319,680	$1,413,738	$1,512,360	$1,615,737	$1,729,895
10	Proposed Debt Funded	$0	$18,638,245	$16,361,755	$0	$0
11	**Total CIP Funding**	**$17,038,065**	**$20,051,983**	**$23,421,339**	**$13,657,259**	**$13,188,473**

3.1.6. PROJECTED DEBT SERVICE PAYMENTS

Table 3-5 shows the Department's projected water utility debt service payments for the period FY 2027 - FY 2031. The proposed Revenue Bond debt service payments are shown in Table 3-5 and reflect the Department's preferred capital financing plan, which features a $35 million issue in FY 2028.

Table 3-5: Projected Debt Service Payments

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Existing Debt Service	$3,198,527	$3,683,467	$4,170,788	$4,170,163	$4,170,538
2	Proposed Revenue Bond Debt Service	$0	$2,474,921	$2,474,921	$2,474,921	$2,474,921
3	Total Debt Service	$3,198,527	$6,158,388	$6,645,709	$6,645,084	$6,645,459

3.1.7. CASH RESERVE AND DEBT SERVICE COVERAGE

The Department's financial plan is based on the maintenance of the cash reserve and debt service coverage targets shown in Table 3-6.

Table 3-6: Cash Reserve and Debt Service Coverage Targets

Line	Description	Metric	Description
1	Operating Reserve	45	Days of Annual O&M Expenses
2	Rate Stabilization Reserve	20%	of Total Water Sales
3	Emergency Reserve	2%	of Capital Assets
4	Capital Reserve	5	Year Average of Rate-Funded CIP
5	Debt Service Coverage Target	1.75	Annual Debt Service Coverage

3.1.8. PROJECTED WATER UTILITY FINANCIAL PLAN

Table 3-7 shows the proposed water utility financial plan for the period FY 2027 - FY 2031. This financial plan reflects the Department's preferred capital financing strategy as determined by Department staff. Line 1 of Table 3-7 indicates the proposed annual revenue increases. Funding for water utility operations will be augmented by a proposed Revenue Bond issuance in the amount of $35 million in FY 2028. Key sections of Table 3-7 are described below:

- Lines 1 and 2 reflect the Department Staff's preferred water utility financing strategy for the period FY 2027 - FY 2031. Specifically, it reflects the combination of revenue increases and external debt financing determined to best meet the financial needs of the water utility.

- Lines 3 through 9 show the projection of rate revenues and miscellaneous non-rate revenues during FY 2027 - FY 2031. The miscellaneous non-rate revenues were developed in consultation with Department staff.

- Line 11 shows the projected O&M expenses for all divisions, as originally shown in Table 3-3.

- Lines 12 - 15 show projected debt service expenditures, as originally shown in Table 3-5.

- Line 16 shows the rate-funded capital based on the Department's preferred capital financing strategy. The details of the projected CIP expenditures by funding source are originally shown in Table 3-4.

- Lines 18 - 27 show the Department's net cash flow, beginning fund balances, ending fund balances, target reserve levels, and the over or under amount compared to the total target balance for FY2027 - FY 2031.

Table 3-7: Water Utility Financial Plan for FY 2027 - FY 2031

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Annual Revenue Increase	6.25%	6.25%	6.25%	6.25%	5.00%
2	Proposed Revenue Bond Issue	$0	$35,000,000	$0	$0	$0
3	Revenues					
4	Revenue from Rates	$55,531,833	$59,402,708	$63,543,804	$67,974,016	$71,858,103
5	Other Water Sales	1,506,000	1,506,000	1,506,000	1,506,000	1,506,000
6	Other Revenues	3,243,000	3,243,000	3,243,000	3,243,000	3,243,000
7	Capacity Fee Revenue	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
8	Earnings on Fund Balance	390,647	368,093	400,163	392,669	376,330
9	**Total Revenues**	**$62,171,481**	**$66,019,801**	**$70,192,968**	**$74,615,685**	**$78,483,433**
10	Expenditures					
11	**O&M (All Divisions)**	**$52,877,699**	**$54,749,075**	**$56,698,396**	**$58,729,555**	**$60,846,671**
12	Debt Service					
13	Existing Debt Service	$3,198,527	$3,683,467	$4,170,788	$4,170,163	$4,170,538
14	Proposed RB Debt Service	0	2,474,921	2,474,921	2,474,921	2,474,921
15	**Total Debt Service**	**$3,198,527**	**$6,158,388**	**$6,645,709**	**$6,645,084**	**$6,645,459**
16	**Rate-Funded Capital**	**$15,718,385**	**$0**	**$5,547,224**	**$12,041,522**	**$11,458,578**
17	**Total Expenditures**	**$71,794,611**	**$60,907,462**	**$68,891,330**	**$77,416,162**	**$78,950,708**
18	**Net Cash Flow**	**($9,623,130)**	**$5,112,339**	**$1,301,638**	**($2,800,477)**	**($467,275)**
19	**Beginning Balance**	**$43,876,305**	**$34,253,175**	**$39,365,514**	**$40,667,152**	**$37,866,676**
20	**Ending Balance**	**$34,253,175**	**$39,365,514**	**$40,667,152**	**$37,866,676**	**$37,399,401**
21	Target Balances					
22	Operating Reserve	$6,519,168	$6,749,886	$6,990,213	$7,240,630	$7,501,644
23	Rate Stabilization Reserve	11,407,567	12,181,742	13,009,961	13,896,003	14,672,821
24	Emergency Replacement Reserve	6,380,200	6,571,606	6,768,754	6,971,817	7,180,971
25	Capital Replacement Reserve	7,416,917	7,639,424	7,868,607	8,104,665	8,347,805
26	**Total Target Balance**	**$31,723,852**	**$33,142,658**	**$34,637,535**	**$36,213,115**	**$37,703,241**
27	**Over / Under Target Balance**	**$2,529,323**	**$6,222,856**	**$6,029,617**	**$1,653,560**	**($303,841)**

Figure 3-1 and Figure 3-2 provide graphical representations of the water utility financial plan and cash reserves for FY 2027 - FY 2031.

Figure 3-1: FY 2027 – FY 2031 Water Utility Financial Plan

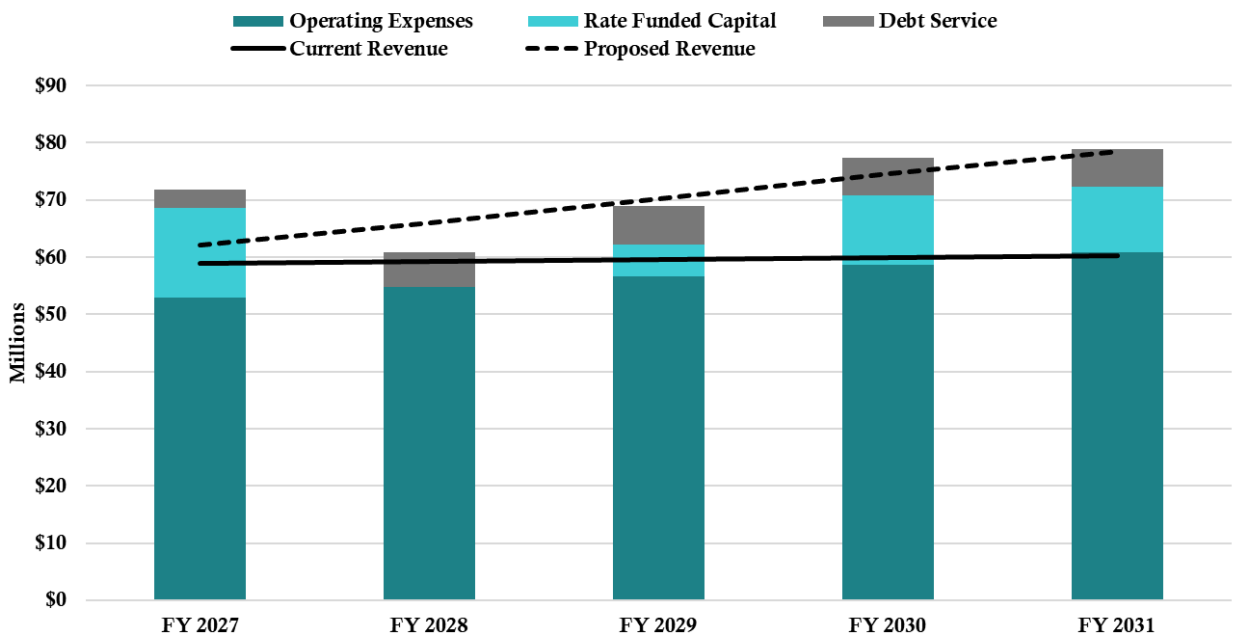
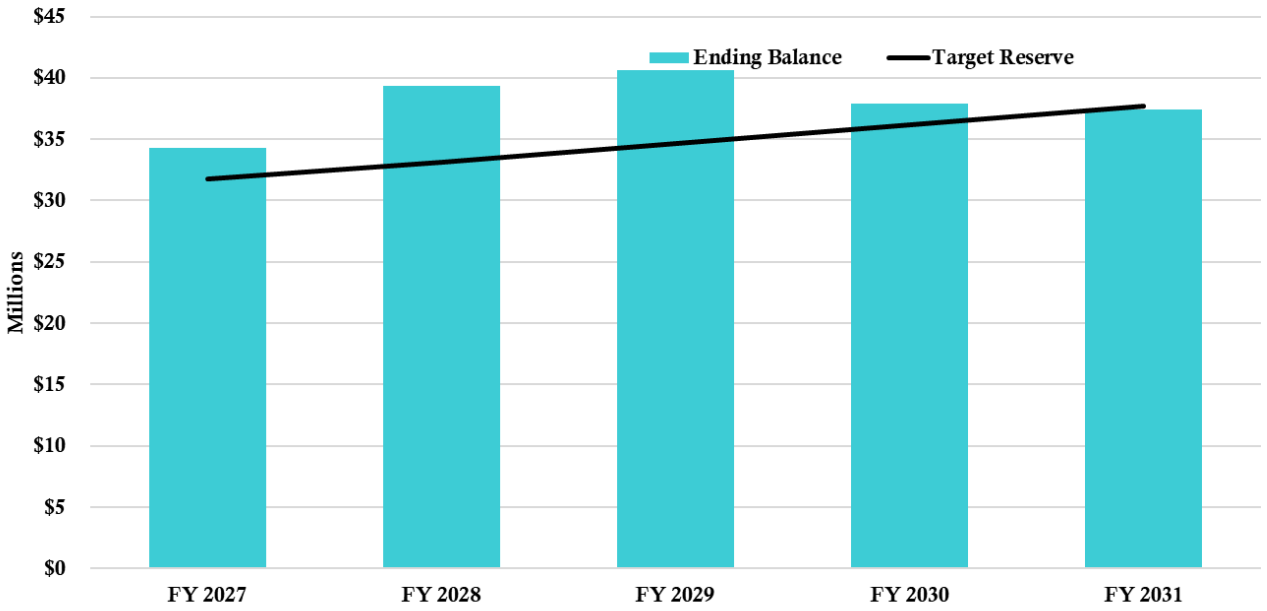


Figure 3-2: Water Utility Cash Reserves



4. Water COS Analysis

4.1.1. COST OF SERVICE METHODOLOGY

A COS analysis distributes a utility's revenue requirements from rates (costs) to each customer class based on their proportionate share of total system water demand. The COS analysis completed by Raftelis follows industry standard cost allocation principles as presented in the American Water Works Association's (AWWA) *M1 Manual, Principles of Water Rates, Fees, and Charges*.

4.1.2. REVENUE REQUIREMENT COST COMPONENTS

The starting point of the water COS analysis is to identify the operating and capital cost components of the annual revenue requirement from rates. Table 4-1 shows the Department's FY 2027 (also referred to as the test year) revenue requirement split into operating and capital categories (Columns C and D), which are later allocated based on O&M expenses and capital assets. The revenue requirements (lines 1-7) equal the sum of FY 2027 operating expenses, debt service, and rate-funded capital. The revenue offsets (lines 9-14) include miscellaneous revenues not subject to revenue adjustments and are applied as offsets to the final rate revenue requirement. The net operating cash flow (line 17) reduces the revenue requirements in this case, since reserves would be used to cover the shortfall, which is illustrated in Table 3-7 (lines 18-20). The final water rate revenue requirement is shown on line 19.

Table 4-1: FY 2027 Revenue Requirement Cost Components

A	B	C	D	E
Line	Description	Operating	Capital	Total
1	Revenue Requirements			
2	O&M (All Divisions)	$52,877,699		$52,877,699
3				
4	Debt and Rate-Funded Capital			
5	Existing Debt Service		$3,198,527	$3,198,527
6	Rate-Funded Capital		$15,718,385	$15,718,385
7	Total Revenue Requirements	$52,877,699	$18,916,912	$71,794,611
8				
9	Less: Revenue Offsets			
10	Other Water Sales	$1,506,000		$1,506,000
11	Other Revenues	$3,243,000		$3,243,000
12	Capacity Fee Revenue		$1,500,000	$1,500,000
13	Earnings on Fund Balance	$390,647		$390,647
14	Subtotal Revenue Offsets	$5,139,647	$1,500,000	$6,639,647
15				
16	Less: Adjustments			
17	Net Cash from (to) Reserves		$9,623,130	$9,623,130
18				
19	Water Rate Revenue Requirement	$47,738,051	$7,793,782	$55,531,833

4.1.3. COST CAUSATION COMPONENTS

After determining the FY 2027 operating and capital cost revenue requirement components, the next step in the COS process is to assign the revenue requirement from rates to specific functional categories and cost causation components. Functionalizing costs allows the utility to demonstrate exactly how customer rate revenues support

essential operations. Functional categories for water utilities may include, but are not limited to, supply, wells, reservoirs, treatment, pumping, transmission and distribution, customer service, and general and administrative functions.

The functional categories have an associated cost driver or cost causation component. The cost causation components reflect the types of demands the water utility must be able to serve. For example, the treatment and transmission functions meet both base and maximum day demands because facilities constructed for treatment and transmission must be sized to meet all demand levels, from below-average to above-average. Therefore, the costs incurred to provide treatment and transmission are generally allocated to the base and maximum day cost causation components. Other costs, such as distribution meet base, maximum day, and maximum hour, are therefore allocated to those cost components. The allocation of costs to cost causation components answers the question, what types of customer demands are met (i.e., paid for) by each function of the water utility system? Cost causation components used in the study include:

- Supply: directly associated with the water supply category
- Base Delivery: costs associated with providing water under average water demand conditions
- Maximum Day Demand: extra-capacity costs associated with providing water during peak day demand conditions
- Maximum Hour Demand: extra-capacity costs associated with providing water during peak hourly demand conditions
- Meters: costs associated with meter maintenance and repair and a share of extra-capacity-related costs
- Fire: costs directly associated with fire flow requirements
- Customer Service: costs of meter reading, billing, and other customer service functions
- Conservation: costs associated with the water conservation program, including staffing, outreach, and efficiency programs
- Groundwater Recharge: costs associated with recharging the groundwater supply
- General: operating costs not directly associated with the above functions are allocated based on the weighted average of the other categories

The maximum day demand is the maximum amount of water used in a single day in a year. Maximum hour demand is the maximum hour usage on the maximum usage day. Both maximum day and maximum hour demands are used to calculate peaking factors, which are critical for distributing costs to customer classes. In the COS analysis, demand costs are allocated in proportion to how the different customer classes use water during the maximum day and maximum hour. To determine how different customer classes use water, historical monthly billing records are analyzed to quantify each customer class's average demand versus their maximum demand. This is further discussed in Section 4.1.5. of the report. This method is consistent with the AWWA M1 Manual and is widely used in the water industry for COS analyses.

4.1.4. SYSTEM PEAKING FACTORS AND DEMAND RATIOS

Table 4-2 shows the system peaking factors and demand ratios used in the COS analysis. The maximum day system peaking factor of 1.70 was obtained from the Department's 2024 Water Facilities Master Plan. Average day demand and maximum monthly demand were established based on monthly customer meter data from calendar year 2021. Maximum day demand was determined based on hourly system data collected from August 2022 through September 2022. The maximum hour peaking factor of 3.07 was also obtained from the Master Plan. To understand the system demand ratio percentages shown in Table 4-2, we must first establish that base demand reflects the average daily demand during the year. Thus, functionalized costs that are incurred to meet base demand are allocated 100% to the base cost causation component. Similarly, functionalized costs that are incurred to meet a combination of base and maximum day demand are allocated 59% to the base cost causation component (1.00/1.70 = 0.59) and 41% to the maximum day cost causation component (1.00 – 0.59). Expenses that are

incurred to meet a combination of base, maximum day, and maximum hour demand are allocated 33% to the base cost causation component (1.0/3.07 = 0.33), 23% to the maximum day cost causation component ((1.70 - 1.0)/3.07)), and 45% to the maximum hour cost causation component (1.00 – 0.33 – 0.23 = 0.45). It is important that functionalized costs are allocated in a manner that reflects how the system is used, ensuring an equitable assignment of the cost of service among customer classes. The allocation to each cost causation component is determined based on observed system demand patterns, while the distribution of those costs to customer classes is driven by each class's relative contribution to system demand, as measured by their peaking characteristics. In essence, system usage defines the cost components, and customer usage patterns determine how those costs are ultimately allocated. The following is a summary of the allocation basis for the types of demand shown in Table 4-2:

- **Functional categories allocated based on Max Day demand**: Treatment, transmission, and pumping infrastructure is designed to accommodate maximum day water demand. Therefore, all treatment, transmission, and pumping costs are allocated to the base, max day, and max hour cost causation components, as shown in line 2 of Table 4-2.
- **Functional categories allocated based on Max Hour demand**: Storage and distribution infrastructure is designed to accommodate maximum hour water demand. Therefore, all storage and distribution costs are allocated to the base, max day, and max hour cost causation components, as shown in line 3 of Table 4-2.

Table 4-2: System Peaking Factors and Demand Ratios

Line	Type of Demand	System Peaking Factors	Base	Max Day	Max Hour	Total
1	Base	1.00	1.00	0.00	0.00	1.00
2	Maximum Day	1.70	0.59	0.41	0.00	1.00
3	Maximum Hour	3.07	0.33	0.23	0.45	1.00

4.1.5. CUSTOMER CLASS PEAKING FACTORS

Water utility systems must be designed, constructed, and operated to meet the peak demands placed on them by customers. Because water utilities incur higher costs to serve customer peak demand, customers who impose higher peak demand are allocated more costs in the COS process and must ultimately pay higher rates. For this reason, estimating the peaking factors of each customer class is a critical component of the COS analysis.

Table 4-3 shows the customer class peaking factors used in the COS analysis. These peaking factors are based on FY 2025 customer billed consumption. The maximum day peaking factors for each customer class are determined by dividing the maximum month demand by the average month demand, and then multiplying by the system ratio of max day to max month to convert to a daily demand factor. The maximum hour peaking factors are determined by multiplying the customer class maximum day peaking factor by the ratio of the system maximum hour peaking factor to the system maximum day peaking factor. For example, line 5 in Table 4-3 shows an estimated maximum day peaking factor of 1.67 for Multi-Family Residential customers. The estimated maximum hour peaking factor of 3.01 is determined by multiplying 1.67 * 3.07/1.70 (lines 2 and 3 in Table 4-2).

Table 4-3: Customer Class Peaking Factors

Line	Customer Class	Test Year Annual Use	% Annual Use	Max Month	Average Month	Peaking Factor (Max Day)	Peaking Factor (Max Hour)
1	Single Family	6,635,314	43%	841,120	594,661	1.88	3.39
2	Tier 1	4,248,702	64%	408,448	361,150	1.50	2.71
3	Tier 2	1,271,551	19%	185,528	117,766	2.09	3.78
4	Tier 3	1,115,061	17%	253,271	115,745	2.91	5.25
5	Multi-Family	2,356,296	15%	246,621	196,429	1.67	3.01
6	Commercial	2,533,002	16%	203,310	166,068	1.63	2.94
7	Irrigation	3,031,398	20%	325,367	211,314	2.04	3.69
8	Institutional	866,454	6%	77,662	54,898	1.88	3.39
9	Other (All Consumption)	37,149	0%	5,234	2,377	2.92	5.28
10	Golf Course	716	0%	153	90	2.26	4.07
11	Fire Service	0	0%	1,451	1,198	1.61	2.90
12	Total	15,460,329	100%				

4.1.6. EQUIVALENT METERS AND PRIVATE FIRE LINES

To allocate non-volumetric meter-related costs appropriately, Raftelis estimated the number of equivalent meters on the Department's water utility system. The COS analysis uses equivalent meters to differentiate fixed charges and represents the potential demand on the water system relative to a base meter size. The equivalent meters are based on hydraulic capacities referenced by the AWWA.

The number of equivalent meters is based on the maximum hydraulic capacity of each meter size in gallons per minute (gpm). Equivalent meters represent the potential demand on the water system expressed in terms of the smallest actual meter size on the system. For example, if a 5/8" meter has a maximum capacity of 20 gallons per minute and a 3" meter has a maximum capacity of 500 gpm, the number of equivalent 5/8" meters represented by a single 3" meter would be 25 (500/20 = 25.0). Table 4-4 shows the equivalent meter count used in the COS analysis. The hydraulic capacity ratios shown in Table 4-4 are based on Department standard meters. Please note that most table values shown throughout this report are rounded to the last digit shown and may therefore not match a precise calculation.

Table 4-4: Equivalent Meter Counts

Line	Meter Size	Flow Capacity (gpm)	Flow Ratio	Number of Meters	Equivalent Meters	Annual Bills
1	5/8" or 1/2	20	1.0	37,548	37,548	450,576
2	3/4"	30	1.5	2,732	4,097	32,779
3	1"	50	2.5	2,009	5,022	24,107
4	1 1/2"	100	5.0	975	4,877	11,706
5	2"	160	8.0	884	7,069	10,604
6	3"	500	25.0	278	6,943	3,333
7	4"	1,000	50.0	127	6,363	1,527
8	6"	1,600	80.0	29	2,292	344
9	8"	2,800	140.0	20	2,749	236
10	10"	5,500	275.0	2	561	24
11	12"	5,500	275.0	1	304	13
12	Total			44,604	77,826	535,248

The equivalent capacity associated with private fire service line accounts and public fire hydrants is calculated separately, with their own hydraulic capacity ratios based on industry standards. Public fire hydrant capacity represents 53% of the total fire capacity based on the formula:

Total Equivalent Hydrants/(Total Equivalent Hydrants + Total Equivalent Fire Lines) = Public Fire Capacity

Table 4-5 shows the equivalent meter count used in the COS analysis. The hydraulic capacity ratios shown in Table 4-5 are based on engineering equations for the flow capacity of pipes with different diameters.

Table 4-5: Fire Connections

Line	Private Fire Connection Size	Fire Demand Ratio	Number of Connections	Equivalent Connections
1	1"	1.0	1	1
2	1 1/2"	2.9	1	4
3	2"	6.2	1,666	10,312
4	3"	18.0	3	54
5	4"	38.3	9	342
6	6"	111.3	5	557
7	8"	237.2	260	61,634
8	10"	426.6	418	178,275
9	12"	689.0	301	207,115
10	Total		2,663	458,293
Line	Hydrant Size	Fire Demand Ratio	Number of Hydrants	Equivalent Connections
11	2"	6.2	8	50
12	3"	18.0	11	198
13	4"	38.3	1,312	50,275
14	6"	111.3	4,145	461,384
15	Total		5,476	511,906
16				
17	Total Equivalent Fire Connections			970,199
18	Percent Allocated to Public Fire Protection			53%
19	Percent Allocated to Private Fire Protection			47%

4.1.7. ALLOCATION OF COSTS

Table 4-6 shows how functionalized operating costs are distributed to cost causation factors. The percentages shown in Table 4-6 define the percentage allocations to cost causation factors as shown in Table 4-7. The resulting dollar allocation of operating costs to each cost causation factor is shown in Table 4-8. Table 4-9 shows the percentage and dollar allocations for functionalized operating costs.

Table 4-6: Functionalized O&M Cost Distributions to Cost Causation Factors[1]

Line	Function	Rationale	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
1	Supply	Supply	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
2	Storage	Max Hour	0%	33%	23%	45%	0%	0%	0%	0%	0%	0%	100%
3	Treatment	Max Day	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
4	Transmission	Max Day	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
5	Distribution	Max Hour	0%	33%	23%	45%	0%	0%	0%	0%	0%	0%	100%
6	Pumping	Max Day	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
7	Meters	Meters	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
8	Fire	Fire	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
9	Customer	Customer	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
10	Conservation	Conservation	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
11	Capital Allocation	CIP (Assets)	10%	23%	16%	25%	4%	4%	0%	0%	0%	19%	0%
12	Groundwater Recharge	GW Recharge	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
13	General	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%

[1] Basis for rationale is explained in Sections 4.1.3 and 4.1.4.

Table 4-7: O&M Percentage Allocations to Cost Causation Factors

Line	Description	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
1	Operations and Maintenance	5%	21%	15%	9%	6%	0%	6%	3%	1%	35%	100%

Table 4-8: O&M Dollar Allocations to Cost Causation Factors

Line	Description	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
1	Operations and Maintenance	$2,519,128	$11,217,094	$7,851,966	$4,602,710	$3,167,778	$67,509	$3,074,864	$1,431,224	$640,625	$18,304,802	$52,877,699

Table 4-9: Capital Cost Allocations

Line	Capital Asset Allocation	Function	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
1	Buildings & Improvements	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
2	Distribution	Distribution	0%	33%	23%	45%	0%	0%	0%	0%	0%	0%	100%
3	Equipment & Vehicles	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
4	Fire	Fire	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
5	General & Admin	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
6	Geothermal	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
7	Land & Easement	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
8	Meters	Meters	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
9	Pumping	Pumping	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
10	Source Of Supply	Supply	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
11	Storage	Storage	0%	33%	23%	45%	0%	0%	0%	0%	0%	0%	100%
12	Transmission	Transmission	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
13	Treatment	Treatment	0%	59%	41%	0%	0%	0%	0%	0%	0%	0%	100%
14													

Line	Capital Asset Allocation	Function	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
15	Buildings & Improvements	General	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,115,546	$9,115,546
16	Distribution	Distribution	$0	$64,548,100	$45,183,670	$88,430,897	$0	$0	$0	$0	$0	$0	$198,162,668
17	Equipment & Vehicles	General	$0	$0	$0	$0	$0	$0	$0	$0	$0	$22,506,816	$22,506,816
18	Fire	Fire	$0	$0	$0	$0	$0	$16,075,290	$0	$0	$0	$0	$16,075,290
19	General & Admin	General	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,853,334	$4,853,334
20	Geothermal	General	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,545,958	$4,545,958
21	Land & Easement	General	$0	$0	$0	$0	$0	$0	$0	$0	$0	$40,418,097	$40,418,097
22	Meters	Meters	$0	$0	$0	$0	$16,668,279	$0	$0	$0	$0	$0	$16,668,279
23	Pumping	Pumping	$0	$4,599,374	$3,219,562	$0	$0	$0	$0	$0	$0	$0	$7,818,935
24	Source Of Supply	Supply	$43,616,025	$0	$0	$0	$0	$0	$0	$0	$0	$0	$43,616,025
25	Storage	Storage	$0	$14,505,781	$10,154,047	$19,872,920	$0	$0	$0	$0	$0	$0	$44,532,748
26	Transmission	Transmission	$0	$4,188,770	$2,932,139	$0	$0	$0	$0	$0	$0	$0	$7,120,909
27	Treatment	Treatment	$0	$10,529,521	$7,370,665	$0	$0	$0	$0	$0	$0	$0	$17,900,186
28	Total Capital Assets		$43,616,025	$98,371,547	$68,860,083	$108,303,817	$16,668,279	$16,075,290	$0	$0	$0	$81,439,751	$433,334,791
29	Capital Allocation		10%	23%	16%	25%	4%	4%	0%	0%	0%	19%	100%

4.1.8. UNIT COST CALCULATION

The next step in the COS analysis process is to calculate the unit cost of service for each cost causation component. This requires summarizing the units of service for each cost causation component, as shown in Table 4-10.

Table 4-10: Units of Service

Line	Customer Class	Percent in Tier	Annual Use (hcf)	Average Daily Use (hcf/day)	Max Day Peaking Factor	Total Capacity (hcf/day)	Extra Capacity (hcf/day)	Max Hur Peaking Factor	Total Capacity (hcf/day)	Extra Capacity (hcf/day)	Equivalent Meters / Connections	Number of Customers
1	Single Family		6,633,316	18,173	1.88	34,140	15,967	3.39	61,653	27,513	39,174	444,611
2	Tier 1 (0-13)	64%	4,247,213	11,636	1.50	17,478	5,842	2.71	31,564	14,085	0	0
3	Tier 2 (13-23)	19%	1,271,208	3,483	2.09	7,287	3,804	3.78	13,160	5,872	0	0
4	Tier 3 (23+)	17%	1,114,895	3,055	2.91	8,877	5,822	5.25	16,031	7,154	0	0
5	Multi-Family		2,356,296	6,456	1.67	10,765	4,309	3.01	19,440	8,675	10,050	36,433
6	Commercial		2,533,002	6,940	1.63	11,284	4,344	2.94	20,377	9,093	14,270	36,368
7	Irrigation		3,031,398	8,305	2.04	16,984	8,679	3.69	30,671	13,687	8,343	15,233
8	Institutional		866,454	2,374	1.88	4,460	2,086	3.39	8,054	3,594	4,286	1,659
9	Other (All Consumption)		37,149	102	2.92	298	196	5.28	538	240	1,695	933
10	Golf Course		716	2	2.26	4	2	4.07	8	4	8	12
11	Fire Service		0	0	1.61	0	0	2.90	0	0	458,293	31,959
12	Total		15,458,332	42,352	-	77,437	35,085	-	139,842	62,405	536,119	567,207

The calculation of public and private fire service capacity is shown in Table 4-11. Line 1 assumes the average fire lasts two hours. The fire service needs 2 thousand gallons (kgal) per minute to fight that fire. 53% of the Department's fire costs are allocated to public fire protection due to the public fire hydrant's share of total equivalent fire lines (calculated in Table 4-5). The maximum day capacity demand is then determined by converting 2 kgal per minute to kgal per hour and multiplying by the two-hour duration of a typical fire. This is then converted to acre-feet (AF). A similar calculation is performed for the maximum hour capacity by multiplying the maximum day capacity by 24 hours, minus the capacity already allocated to the maximum day. Public fire is then allocated 53% each of those capacities. Public fire costs include the costs associated with delivering water in sufficient quantities and at sufficient pressure to public fire hydrants to combat fire on property served by the Department. Such costs are included in water rates because public fire hydrants provide a property-related service. The hydrants deliver water to the property served by the Department in a way that internal fixtures cannot, to combat fire on such property.

Table 4-11: Calculation of Fire Capacity

Line	Fire Estimate	Max Day	Max Hour
1	Hours for Fire	2	0
2	Kgals/minute	2	2
3			
4	Cost to Public Fire	53%	53%
5	Capacity Demanded for Fire (hcf)	321	3,529
6	Public Fire	169	1,862
7	Private Fire	152	1,667
8	Total Fire	321	3,529
9	Total Capacity	35,406	65,934

The final calculation of the unit cost of service for each cost causation component is shown in Table 4-12. The calculated unit costs are shown in line 13.

Table 4-12: Unit Cost of Service Calculation

Line	Cost Allocation	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	General	Total
1	Operating Revenue Requirement	$2,274,272	$10,126,806	$7,088,764	$4,155,332	$2,859,873	$60,947	$2,775,991	$1,292,111	$578,357	$16,525,598	$47,738,051
2	Capital Revenue Requirement	$784,460	$1,769,270	$1,238,489	$1,947,908	$299,789	$289,124	$0	$0	$0	$1,464,742	$7,793,782
3	Total Cost of Service	$3,058,732	$11,896,077	$8,327,254	$6,103,240	$3,159,662	$350,071	$2,775,991	$1,292,111	$578,357	$17,990,340	$55,531,833
4	Allocation of General Cost	$0	$6,206,419	$4,344,493	$3,184,181	$1,648,458	$182,639	$1,448,289	$674,120	$301,740	-$17,990,340	$0
5	Allocation of Public Fire to Mete	$0	$0	$0	$0	$0	-$281,073	$281,073	$0	$0	$0	$0
6	Allocation of Base to Meter	$0	-$9,051,248	$0	$0	$9,051,248	$0	$0	$0	$0	$0	$0
7	Allocation of Peaking to Meter	$0	$0	-$3,167,937	-$2,321,855	$5,489,792	$0	$0	$0	$0	$0	$0
8	Total Adjusted Cost of Service	$3,058,732	$9,051,248	$9,503,810	$6,965,566	$19,349,160	$251,636	$4,505,353	$1,966,231	$880,097	$0	$55,531,833
9												
10	**Unit of Service**	15,458,332	15,458,332	35,085	62,405	933,912	5,499,518	567,207	15,458,332	15,458,332		
11	Unit of Measure	hcf	hcf	hcf/day	hcf/day	equiv. meter/yr	equiv. connection/yr	bills/yr	hcf	hcf		
12												
13	**Unit Cost**	**$0.20**	**$0.59**	**$270.88**	**$111.62**	**$20.72**	**$0.05**	**$7.94**	**$0.13**	**$0.06**		
14	Unit of Measure	hcf	hcf	hcf/day	hcf/day	equiv. meter/month	equiv. connection/month	per month	hcf	hcf		

4.1.9. DISTRIBUTION OF COSTS TO CUSTOMER CLASSES

The final step in the COS analysis is to distribute costs to customer classes. This is accomplished by multiplying the unit cost of service for each cost causation component from Table 4-12 by the customer class units of service from Table 4-10. Table 4-13 summarizes the customer COS for each cost causation component.

Table 4-13: Distribution of Costs to Customer Classes

Line	Customer Class Cost of Service	Tier Definition	Supply	Base Delivery	Max Day	Max Hour	Meters	Fire	Customer	Conservation	GW Recharge	Total
1	Single Family											
2	Tier 1 (0-13)	13	$840,394	$2,486,852	$1,582,501	$1,572,203	$9,739,426	$0	$3,531,562	$540,227	$241,809	$20,534,973
3	Tier 2 (13-23)	23	$251,533	$744,325	$1,030,497	$655,482	$0	$0	$0	$161,692	$72,374	$2,915,902
4	Tier 3 (23+)	>23	$220,604	$652,800	$1,577,181	$798,499	$0	$0	$0	$141,810	$63,475	$3,454,368
5	Multi-Family		$466,239	$1,379,671	$1,167,236	$968,301	$2,498,644	$0	$289,388	$299,710	$134,152	$7,203,342
6	Commercial		$501,204	$1,483,137	$1,176,712	$1,014,996	$3,547,840	$0	$288,869	$322,187	$144,213	$8,479,158
7	Irrigation		$599,821	$1,774,961	$2,350,837	$1,527,719	$2,074,288	$0	$120,998	$385,580	$172,588	$9,006,792
8	Institutional		$171,445	$507,331	$565,120	$401,193	$1,065,481	$0	$13,175	$110,209	$49,330	$2,883,284
9	Other (All Consumption)		$7,351	$21,752	$53,059	$26,775	$421,492	$0	$7,414	$4,725	$2,115	$544,682
10	Golf Course		$142	$419	$668	$398	$1,989	$0	$95	$91	$41	$3,843
11	Fire Service		$0	$0	$0	$0	$0	$251,636	$253,852	$0	$0	$505,488
12	Total		$3,058,732	$9,051,248	$9,503,810	$6,965,566	$19,349,160	$251,636	$4,505,353	$1,966,231	$880,097	$55,531,833

4.1.10. COMPARISON OF CLASS COS TO REVENUES AT EXISTING RATES

The final step in the COS analysis process is to compare the calculated COS for each customer class to the rate revenues for that class under existing rates. This process shows the appropriate allocation of costs to reflect the current COS. The process results in an overall percentage

change that matches the financial planning input. Table 4-14 compares the water COS for each customer class to the current revenue at existing rates. The 6.25% overall difference aligns with the utility's financial planning increase for FY 2027.

Table 4-14: FY 2027 Customer Class COS vs. Revenue at Existing Rates

Line	Customer Class	FY 2027 COS	Revenue at Existing Rates	$ Difference	% Difference
1	Single Family	$26,905,244	$23,704,091	$3,201,153	13.50%
2	Multi-Family	$7,203,342	$6,488,398	$714,944	11.02%
3	Commercial	$8,479,158	$8,017,483	$461,675	5.76%
4	Irrigation	$9,006,792	$10,025,655	-$1,018,863	-10.16%
5	Institutional	$2,883,284	$2,984,852	-$101,567	-3.40%
6	Other (All Consumption)	$544,682	$516,247	$28,435	5.51%
7	Golf Course	$3,843	$1,957	$1,886	96.36%
8	Fire Service	$505,488	$526,573	-$21,085	-4.00%
9	Total COS	$55,531,833	$52,265,255	$3,266,578	6.25%

5. Water Rate Design

5.1.1. WATER RATE DESIGN

Water rates must be designed to recover the customer class COS as determined in Section 4. This section of the report discusses the derivation of both monthly fixed charges and commodity rates under the COS approach.

5.1.2. DERIVATION OF FIXED CHARGES

Monthly fixed charges recover the fixed cost causation components that do not vary with water demand. Under the existing and proposed water rate structure, the monthly meter service charge and the private fire line charge are the two fixed charges. The monthly meter service charge is calculated based on two separate cost components, as shown in line 13 of Table 4-12. It consists of the unit cost per equivalent meter and the unit cost per customer bill. Table 5-1 shows the calculation of the proposed FY 2027 meter service charge using these inputs.

Table 5-1: Calculation of the FY 2027 Meter Service Charge

Line	Meter Size	Capacity Ratio	Meter	Customer	Proposed Charge	Current Charge	$ Difference	% Difference
1	5/8" or 1/2"	1.00	$20.72	$7.94	$28.66	$23.97	$4.69	20%
2	3/4"	1.50	$31.08	$7.94	$39.02	$32.98	$6.04	18%
3	1"	2.50	$51.80	$7.94	$59.74	$50.91	$8.83	17%
4	1 1/2"	5.00	$103.59	$7.94	$111.53	$95.77	$15.76	16%
5	2"	8.00	$165.75	$7.94	$173.69	$149.62	$24.07	16%
6	3"	25.00	$517.96	$7.94	$525.90	$454.70	$71.20	16%
7	4"	50.00	$1,035.92	$7.94	$1,043.86	$903.35	$140.51	16%
8	6"	80.00	$1,657.47	$7.94	$1,665.41	$1,441.73	$223.68	16%
9	8"	140.00	$2,900.57	$7.94	$2,908.52	$2,518.50	$390.02	15%
10	10"	275.00	$5,697.56	$7.94	$5,705.50	$4,941.21	$764.29	15%
11	12"	275.00	$5,697.56	$7.94	$5,705.50	$4,941.21	$764.29	15%

The monthly private fire line charge is calculated based on the two cost components shown in line 13 of Table 4-12. It consists of the unit cost per equivalent private fire line connection and the unit cost per customer bill. Table 5-2 shows the calculation of the proposed FY 2027 meter service charge using these inputs.

Table 5-2: Calculation of the FY 2027 Private Fire Charges

Line	Meter Size	Fire Demand Ratio	Meter	Customer	Proposed Charge	Current Charge	$ Difference	% Difference
1	1"	1.00	$0.05	$7.94	$7.99	$6.12	$1.87	31%
2	1 1/2"	2.90	$0.13	$7.94	$8.08	$6.24	$1.84	29%
3	2"	6.19	$0.28	$7.94	$8.23	$6.45	$1.78	28%
4	3"	17.98	$0.82	$7.94	$8.77	$7.25	$1.52	21%
5	4"	38.32	$1.75	$7.94	$9.70	$8.60	$1.10	13%
6	6"	111.31	$5.09	$7.94	$13.04	$13.44	-$0.40	-3%
7	8"	237.21	$10.85	$7.94	$18.80	$21.82	-$3.02	-14%
8	10"	426.58	$19.52	$7.94	$27.46	$34.43	-$6.97	-20%
9	12"	689.04	$31.53	$7.94	$39.47	$51.90	-$12.43	-24%

5.1.3. DERIVATION OF CUSTOMER CLASS COMMODITY RATES

Commodity rates are composed of unit costs for supply, base demand, maximum day demand, maximum hour demand, peaking, conservation, and groundwater recharge cost causation components. Table 5-3 provides details of the unit cost ($/HCF) of water supply for each customer class. The Department has a net FY 2027 O&M revenue requirement of $47,738,051 and a net capital cost revenue requirement of $7,793,782 (see line 19 Table 4-1). As part of the cost allocation process, $2,274,272 of O&M costs and $784,460 of capital costs were allocated to the supply cost causation component, which results in a total FY 2027 water supply cost revenue requirement of $3,058,732 (see lines 1, 2, and 8 in the "Supply" column of Table 4-12). The value of $3,058,732 is shown in line 12 of Table 5-3. The supply costs for each customer class were determined based on the proportional share of the annual estimated FY 2027 demand.

Table 5-3: FY 2027 $/HCF Water Supply Costs by Customer Class

Line	Customer Class	Annual Use	Supply Cost	Supply Unit Cost
1	Single Family			
2	Tier 1 (0-13)	4,247,213	$840,394	$0.20
3	Tier 2 (13-23)	1,271,208	$251,533	$0.20
4	Tier 3 (23+)	1,114,895	$220,604	$0.20
5	Multi-Family	2,356,296	$466,239	$0.20
6	Commercial	2,533,002	$501,204	$0.20
7	Irrigation	3,031,398	$599,821	$0.20
8	Institutional	866,454	$171,445	$0.20
9	Other (All Consumption)	37,149	$7,351	$0.20
10	Golf Course	716	$142	$0.20
11	Fire Service	0	$0	$0.00
12	Total	15,458,332	$3,058,732	$0.00

Table 5-4 provides details of the unit cost ($/HCF) of peaking costs for each customer class. Based on the cost allocation process described in Section 4, the Department has total maximum day and maximum hour peaking costs of $16,469,376 ($9,503,810 for maximum day and $6,965,566 for maximum hour, as shown in line 8 of Table 4-12. The maximum day and maximum hour unit cost of service, expressed on a $/HCF basis, are shown in line 13 of Table 4-12. The peaking costs allocated to each customer class were determined by multiplying the unit COS values by the unique maximum day and maximum hour units of service estimated for each customer class (see Table 4-10). The peaking unit cost for each customer class is calculated by dividing the total peaking costs for that class by its annual usage, as shown in the last column of Table 5-4.

Table 5-4: FY 2027 $/HCF Peaking Costs by Customer Class

Line	Customer Class	A Annual Use (HCF)	B Max Day Costs	C Max Hour Costs	D = B+ C Total Peaking Costs	E = D / A Unit Cost ($/HCF)
1	Single Family					
2	Tier 1 (0-13)	4,247,213	$1,582,501	$1,572,203	$3,154,704	$0.74
3	Tier 2 (13-23)	1,271,208	$1,030,497	$655,482	$1,685,978	$1.33
4	Tier 3 (23+)	1,114,895	$1,577,181	$798,499	$2,375,680	$2.13
5	Multi-Family	2,356,296	$1,167,236	$968,301	$2,135,537	$0.91
6	Commercial	2,533,002	$1,176,712	$1,014,996	$2,191,708	$0.87
7	Irrigation	3,031,398	$2,350,837	$1,527,719	$3,878,556	$1.28
8	Institutional	866,454	$565,120	$401,193	$966,313	$1.12
9	Other (All Consumption)	37,149	$53,059	$26,775	$79,833	$2.15
10	Golf Course	716	$668	$398	$1,066	$1.49
11	Total	15,458,332	$9,503,810	$6,965,566	$16,469,376	$1.07

Table 5-5 provides a detail of how the final proposed FY 2027 $/HCF commodity rates were calcuated. The base delivery unit cost of $0.59/hcf (shown in Table 5-5) was determined as shown in line 13 of Table 4-12 (base delivery costs of $9,051,248 divided by estimated annual demand of 15,458,332 hcf). The conservation unit cost of $0.13/hcf was determined as shown in line 13 of Table 4-12 (conservation costs of $1,966,231 divided by estimated annual demand of 15,458,332 hcf). The groundwater recharge costs of $0.06/hcf were determined as shown in line 13 of Table 4-12 (groundwater recharge costs of $880,097 divided by estimated annual demand of 15,458,332 hcf).

Table 5-5: FY 2027 Proposed $/HCF Commodity Rates by Customer Class

Line	Customer Class	A Supply	B Base	C Peaking	D Conservation	E GW Recharge	F=A+B+C+D+E Final Proposed Rate
1	Single Family						
2	Tier 1 (0-13)	$0.20	$0.59	$0.74	$0.13	$0.06	$1.71
3	Tier 2 (13-23)	$0.20	$0.59	$1.33	$0.13	$0.06	$2.29
4	Tier 3 (23+)	$0.20	$0.59	$2.13	$0.13	$0.06	$3.10
5	Multi-Family	$0.20	$0.59	$0.91	$0.13	$0.06	$1.87
6	Commercial	$0.20	$0.59	$0.87	$0.13	$0.06	$1.83
7	Irrigation	$0.20	$0.59	$1.28	$0.13	$0.06	$2.25
8	Institutional	$0.20	$0.59	$1.12	$0.13	$0.06	$2.08
9	Other (All Consumption)	$0.20	$0.59	$2.15	$0.13	$0.06	$3.12
10	Golf Course	$0.20	$0.59	$1.49	$0.13	$0.06	$2.46

5.1.4. PROPOSED RATES FOR FY 2027 – FY 2031

After determining COS rates for FY 2027, the rates for the period FY 2028 - 2031 are calculated based on the overall financial planning increase originally shown in Table 1-1. Those increases were 6.25% for FY 2028 through FY 2031, and then 5% in FY 2031. The resulting proposed meter service charges for the entire FY 2027 - FY 2031 planning horizon are shown in Table 5-6.

Table 5-6: Proposed FY 2027 - FY 2031 Meter Service Charges ($/month)

Line	Meter Size	Current	FY 2027	FY 2028	FY 2029	FY 2031	FY 2031
1	5/8" or 1/2'	$23.97	$28.66	$30.46	$32.37	$34.40	$36.12
2	3/4"	$32.98	$39.02	$41.46	$44.06	$46.82	$49.17
3	1"	$50.91	$59.74	$63.48	$67.45	$71.67	$75.26
4	1 1/2"	$95.77	$111.53	$118.51	$125.92	$133.79	$140.48
5	2"	$149.62	$173.69	$184.55	$196.09	$208.35	$218.77
6	3"	$454.70	$525.90	$558.78	$593.71	$630.82	$662.37
7	4"	$903.35	$1,043.86	$1,109.11	$1,178.43	$1,252.09	$1,314.70
8	6"	$1,441.73	$1,665.41	$1,769.51	$1,880.11	$1,997.62	$2,097.51
9	8"	$2,518.50	$2,908.52	$3,090.30	$3,283.45	$3,488.67	$3,663.11
10	10"	$4,941.21	$5,705.50	$6,062.10	$6,440.99	$6,843.56	$7,185.74
11	12"	$4,941.21	$5,705.50	$6,062.10	$6,440.99	$6,843.56	$7,185.74

Proposed private fire line charges for the FY 2027 - FY 2031 planning horizon are shown in Table 5-7.

Table 5-7: Proposed FY 2027 - FY 2031 Private Fire Line Charges ($/month)

Line	Meter Size	Current	FY 2027	FY 2028	FY 2029	FY 2031	FY 2031
1	1"	$6.12	$7.99	$8.49	$9.03	$9.60	$10.08
2	1 1/2"	$6.24	$8.08	$8.59	$9.13	$9.71	$10.20
3	2"	$6.45	$8.23	$8.75	$9.30	$9.89	$10.39
4	3"	$7.25	$8.77	$9.32	$9.91	$10.53	$11.06
5	4"	$8.60	$9.70	$10.31	$10.96	$11.65	$12.24
6	6"	$13.44	$13.04	$13.86	$14.73	$15.66	$16.45
7	8"	$21.82	$18.80	$19.98	$21.23	$22.56	$23.69
8	10"	$34.43	$27.46	$29.18	$31.01	$32.95	$34.60
9	12"	$51.90	$39.47	$41.94	$44.57	$47.36	$49.73

Proposed commodity rates for the FY 2027 - FY 2031 planning horizon are shown in Table 5-8.

Table 5-8: Proposed FY 2027 - FY 2031 Commodity Rates ($/hcf)

Line	Customer Class	Current	FY 2027	FY 2028	FY 2029	FY 2031	FY 2031
1	Single Family						
2	Tier 1 (0-13)	$1.60	$1.71	$1.82	$1.94	$2.07	$2.18
3	Tier 2 (13-23)	$2.16	$2.29	$2.44	$2.60	$2.77	$2.91
4	Tier 3 (23+)	$2.73	$3.10	$3.30	$3.51	$3.73	$3.92
5	Multi-Family	$1.80	$1.87	$2.00	$2.13	$2.27	$2.39
6	Commercial	$1.94	$1.83	$1.95	$2.08	$2.21	$2.33
7	Irrigation	$2.72	$2.25	$2.39	$2.54	$2.70	$2.84
8	Institutional	$2.43	$2.08	$2.22	$2.36	$2.51	$2.64
9	Other (All Consumption)	$4.49	$3.12	$3.32	$3.53	$3.76	$3.95

5.1.5. CUSTOMER BILL IMPACTS

Table 5-9 shows the projected bill impacts for Single Family Residential customers under the new rates.

Table 5-9: Proposed FY 2027 Single Family Residential Bill Impacts

Line	Usage	Existing	Proposed	Increase/(Decrease)
1	7	$35.17	$40.63	$5.46
2	15	$49.09	$55.47	$6.38
3	25	$71.83	$79.99	$8.16

6. Wholesale Water Rate

The City is evaluating the potential sale of 5,000 acre-feet of wholesale water to four prospective customers. While the exact usage patterns for these customers are currently unknown, the City has projected the operational and capital costs necessary to support the additional demand. By utilizing historical cost data and assumed purchase volumes, the City established a wholesale water rate that can be implemented if these customers join the system.

Consistent with the methodology used for retail customers, Raftelis developed a specific revenue requirement for the wholesale customer class. This requirement is based on actual operating and capital expenditures, which were allocated proportionally based on demand and City assumptions.
Key allocation factors include:

- Administrative Costs: Wholesale customers are assigned 5% of total administrative costs.
- Production, Pumping, and Debt Service: These costs are allocated based on the percentage of total water attributed to the wholesale class. The projected 5,000 acre feet divided by total water production lead to an 11.66% allocation.
- Excluded Costs: Distribution costs are excluded from the wholesale revenue requirement, as wholesale customers are responsible for their own distribution infrastructure.

Table 6 1: Wholesale Revenue Requirement

Line	Description	Actual Expenditures	Allocation Percentage	Wholesale Revenue Requirement	Allocation Basis
1	Water Utility Operations Cost				
2	Water Operation Pumping	$4,054,399	11.66%	$472,763	Demand
3	Water Plant&Facility Maint	$1,900,494	11.66%	$221,607	Demand
4	Water - Administration	$798,449	5.00%	$39,922	Estimate
5	Water Operations Admin	$409,569	5.00%	$20,478	Estimate
6	Water Specialized Construction	$775,494	5.00%	$38,775	Estimate
7	Engineering	$1,355,238	5.00%	$67,762	Estimate
8	Water Quality/Backflow	$2,067,614	11.66%	$241,094	Demand
9	Elect Instrumental & Scada	$1,006,613	11.66%	$117,376	Demand
10	Total	$19,710,080		$1,219,779	
11					
12	Electrical				
13	Water Operation Pumping	$3,413,825	11.66%	$398,069	Demand
14	Water Consent Decree	$2,711,965	11.66%	$316,229	Demand
15	Water General Administrative	$75,881	11.66%	$8,848	Demand
16	Total	$6,201,671		$723,146	
17					
18	Administrative				
19	Water Board Of Commissioners	$51,993	5.00%	$2,600	Estimate
20	Administration/Gm Services	$602,503	5.00%	$30,125	Estimate
21	Human Resources	$546,451	5.00%	$27,323	Estimate
22	Information Technology	$1,089,969	5.00%	$54,498	Estimate
23	Fleet	$898,478	5.00%	$44,924	Estimate
24	Water Conserv/Public Affairs	$581,581	5.00%	$29,079	Estimate
25	Finance/Purchasing	$1,231,610	5.00%	$61,581	Estimate
26	Facility Maintenance	$437,082	5.00%	$21,854	Estimate
27	Environ & Regulatory Comp	$820,133	5.00%	$41,007	Estimate
28	Water General Administrative	$4,904,515	5.00%	$245,226	Estimate
29	Total	$11,164,314		$558,216	
30					
31	Capital Expenses				
32	Water Plant & Faciities Maintenance	$84,649	11.66%	$9,870	Demand
33	Finance/Purchasing	$0	5.00%	$0	Estimate
34	Environ & Regulatory Comp	$0	5.00%	$0	Estimate
35	Water Quality/Backflow	$111,458	11.66%	$12,997	Demand
36	Water Operation Pumping	$156,293	11.66%	$18,225	Demand
37	Water Specialized Construction	$162,048	5.00%	$8,102	Estimate
38	Water General Administrative	$2,575,141	5.00%	$128,757	Estimate
39	Total	$3,633,502		$177,951	
40					
41					
42	Total O&M	$40,709,568		$2,679,092	
43					
44					
45	Debt Expenses				
46	Total P&I	$3,026,085	11.66%	$352,857	Demand
47					
48	Total	$43,735,653		$3,031,948	

Table 6-2 presents the proposed wholesale rates derived from these cost allocations, along with the projected units of service. Table 6 3 shows the projected rates over the five-year period.

Table 6 2: Proposed Wholesale Rate

Line	Description	
1	Wholesale Rate Calculation	
2	Total Revenue Requirement	$3,031,948
3	Total Units (AF)	5,000
4	Proposed Rate ($/AF)	$606.39

Table 6 3: Wholesale Rate Projection

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Proposed Rate ($/AF)	$606.39	$621.55	$637.09	$653.02	$669.34

7. Geothermal Water Rates

In addition to potable and potential wholesale water sales, San Bernardino is known for its geothermal resources due to proximity to the San Jacinto, Loma Linda, and San Andreas faults. The Department sells geothermal water resources to three customers. The system is located at the south end of the City and consists of two groundwater wells and a distribution system approximately 65,000 linear feet long. To develop the rate for these customers, a revenue requirement was established.

The Department provided geothermal monthly usage summaries for all three customers and geothermal labor estimates. The labor estimates were derived from hourly rates for employees within operational divisions and from time spent on geothermal activities to estimate an annual cost requirement for operating divisions such as Water Production and Treatment, Water Quality, Finance, Plant and Facility Maintenance, and Electrical, Instrumental, & SCADA. In addition to labor estimates, geothermal was assigned electric costs from Water Production and Treatment equivalent to the percentage of water attributed to geothermal. Lastly, the Department has annual capital expenditures for the repair and rehabilitation of geothermal wells, which were added to the revenue requirement. Table 7-1 shows the revenue requirement components and the proposed rate. The proposed rate of $5.37 is derived by dividing the total revenue requirement of $417,886 by the total units of 77,837.

Table 7-1: Proposed Geothermal Rate

Line	Description	
1	Revenue Requirement	
2	Operating Expenses	$317,886
3	Capital Expenses	$100,000
4	Total Revenue Requirement	$417,886
5		
6	Units of Service	
7	Total Units (hcf)	77,837
8		
9	Proposed Rate ($/hcf)	$5.37
10		
11	Existing Rates ($/hcf)	
12	Job Options	$0.44
13	Animal Shelter	$0.25
14	Magic Laundry	$0.44

8. Wastewater Financial Plan

8.1.1. OVERVIEW OF THE FINANCIAL PLANNING PROCESS

This section describes the process used to develop the wastewater utility financial plan for the period FY 2027 - FY 2031. As noted previously, the overarching objective of the financial planning process is to project the revenue requirement from rates (i.e., rate revenues that must be collected from customers) based on a utility's desired capital funding strategy. Key steps in the development of a wastewater financial plan include:

- **Forecast of Billed Sewer Discharges (Demand Forecast)**: The demand forecast projects the level of billed wastewater discharges for each customer class based on anticipated customer account growth and projected per account water consumption (wastewater billed discharges are based on metered water consumption).

- **Projection of Wastewater Sales Revenues at Existing Rates**: This step in the financial planning process determines how much rate revenue will be earned from forecast billed wastewater discharges if there are *no rate increases*. This projected level of rate revenue can then be compared to projected expenditures to determine the annual funding shortfall (i.e., the difference between projected wastewater sales revenues and projected expenditures) that must be met by the appropriate combination of rate revenue increases or external debt financing.

- **Projection of Miscellaneous Non-Rate Revenue**: Miscellaneous non-rate revenue items can include interest income from cash reserves, grants, capacity fee receipts, and miscellaneous ancillary fees. Miscellaneous non-rate revenues assist in closing the in the annual funding shortfall. Miscellaneous non-rate revenues also reduce the revenue requirement from rates (i.e., the level of amount of rate revenue that must be earned from customers).

- **Projection of Expenditures (O&M, Cash Funded CIP Expenditures, Debt Service Payments)**: This step in the financial planning process determines the level of expenditures that will be incurred by the utility to provide service during each year of the planning horizon. Projected expenditures are compared against projected wastewater sales revenue at existing rates and projected miscellaneous non-rate revenue to determine the annual funding gap.

- **Identification of Cash Reserve and Debt Service Coverage Targets**: Utilities must not only have sufficient revenues to pay for projected expenditures, but they must also maintain prudent cash reserves and meet both contractually obligated and target debt service coverage requirements.

- **Determination of the Capital Financing Strategy**: In this final step in the financial planning process, the utility determines the optimal mix of annual rate revenue increases and external debt financing to cover the funding shortfall. As discussed previously, the funding shortfall is the difference between revenues at existing rates and projected expenditures (including funding for prudent cash reserves and debt service coverage levels).

8.1.2. PROJECTED CUSTOMER ACCOUNTS

Table 8-1 shows projected customer accounts for both Inside City and Loma Linda customers for the period FY 2027 - FY 2031. Based on discussions with Department staff, there is no projected growth in customer accounts through FY 2031.

Table 8-1: Projected Customer Accounts

Line	Customer Class	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Inside City					
2	Residential	33,959	33,959	33,959	33,959	33,959
3	Multi-Family (2 Units)	1,281	1,281	1,281	1,281	1,281
4	Multi-Family (3 Units)	390	390	390	390	390
5	Multi-Family, Mobile Home Parks (4 or more units)	993	993	993	993	993
6	Retail, Commercial, Light Industrial	1,445	1,445	1,445	1,445	1,445
7	Auto Repair, Car Wash	240	240	240	240	240
20	Office, Motels (without Restaurants)	631	631	631	631	631
21	Restaurants, Hotels	263	263	263	263	263
22	Laundromats	21	21	21	21	21
23	Hospitals, Convalescent Homes	42	42	42	42	42
24	Schools, Churches, Nursery Schools	244	244	244	244	244
25	Industrial	13	13	13	13	13
26	Total Inside City	39,520	39,520	39,520	39,520	39,520
27						
28	Outside City-Loma Linda					
29	Residential	2,352	2,352	2,352	2,352	2,352
30	Multi-Family (2 Units)	86	86	86	86	86
31	Multi-Family (3 Units)	26	26	26	26	26
32	Multi-Family, Mobile Home Parks (4 or more units)	198	198	198	198	198
33	Retail, Commercial, Light Industrial	41	41	41	41	41
34	Auto Repair, Car Wash	5	5	5	5	5
35	Office, Motels (without Restaurants)	31	31	31	31	31
36	Restaurants, Hotels	15	15	15	15	15
37	Laundromats	1	1	1	1	1
38	Hospitals, Convalescent Homes	15	15	15	15	15
39	Schools, Churches, Nursery Schools	3	3	3	3	3
43	Total Outside City-Loma Linda	2,774	2,774	2,774	2,774	2,774
44						
45	Total	42,294	42,294	42,294	42,294	42,294
46	Annual Percentage Change	0%	0%	0%	0%	0%

8.1.3. PROJECTED BILLED SEWER DISCHARGES

Table 8-2 shows projected billed sewer discharges for both Inside City and Loma Linda customers for the period FY 2027 - FY 2031. Similar to projected customer accounts, there is no growth in projected sewer discharges.

Table 8-2: Projected Billed Sewer Discharges

Line	Customer Class	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Inside City					
2	Residential	6,532,163	6,532,163	6,532,163	6,532,163	6,532,163
3	Multi-Family (2 Units)	313,635	313,635	313,635	313,635	313,635
4	Multi-Family (3 Units)	126,676	126,676	126,676	126,676	126,676
5	Multi-Family, Mobile Home Parks (4 or more units)	1,759,557	1,759,557	1,759,557	1,759,557	1,759,557
6	Retail, Commercial, Light Industrial	792,358	792,358	792,358	792,358	792,358
7	Auto Repair, Car Wash	108,515	108,515	108,515	108,515	108,515
8	Office, Motels (without Restaurants)	520,129	520,129	520,129	520,129	520,129
9	Restaurants, Hotels	172,165	172,165	172,165	172,165	172,165
10	Laundromats	71,648	71,648	71,648	71,648	71,648
11	Hospitals, Convalescent Homes	166,811	166,811	166,811	166,811	166,811
12	Schools, Churches, Nursery Schools	313,983	313,983	313,983	313,983	313,983
13	Industrial	273,538	273,538	273,538	273,538	273,538
14	Total Inside City	11,151,178	11,151,178	11,151,178	11,151,178	11,151,178
15						
16	Outside City-Loma Linda					
17	Residential	833,462	833,462	833,462	833,462	833,462
18	Multi-Family (2 Units)	40,018	40,018	40,018	40,018	40,018
19	Multi-Family (3 Units)	16,163	16,163	16,163	16,163	16,163
20	Multi-Family, Mobile Home Parks (4 or more units)	377,342	377,342	377,342	377,342	377,342
21	Retail, Commercial, Light Industrial	55,263	55,263	55,263	55,263	55,263
22	Auto Repair, Car Wash	9,104	9,104	9,104	9,104	9,104
23	Office, Motels (without Restaurants)	18,598	18,598	18,598	18,598	18,598
24	Restaurants, Hotels	10,810	10,810	10,810	10,810	10,810
25	Laundromats	5,765	5,765	5,765	5,765	5,765
26	Hospitals, Convalescent Homes	55,400	55,400	55,400	55,400	55,400
27	Schools, Churches, Nursery Schools	12,256	12,256	12,256	12,256	12,256
28	Total Outside City-Loma Linda	1,434,181	1,434,181	1,434,181	1,434,181	1,434,181
29						
30	Total	12,585,359	12,585,359	12,585,359	12,585,359	12,585,359

8.1.4. SUMMARY OF PROJECTED REVENUES EXISTING RATES

Table 8-3 shows a summary of the projection of wastewater revenues at existing rates during the FY 2027 - FY 2031 planning horizon. Note that only Inside City customers pay collection system-related rates and charges. This is because the City of Loma Linda maintains its own collection system operations. The amounts shown in Table 8-3 were calculated by multiplying projected customer accounts and billed sewer discharges from Tables 8-1 and 8-2 by existing FY 2026 wastewater rates and charges.

Table 8-3: Summary of Projected Revenues at Existing Rates

Line	Rate Revenue Component	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Fixed Charges					
2	Inside City	$25,003,660	$25,003,660	$25,003,660	$25,003,660	$25,003,660
3	Outside City-Loma Linda	$949,248	$949,248	$949,248	$949,248	$949,248
4	Total	$25,952,907	$25,952,907	$25,952,907	$25,952,907	$25,952,907
5						
6	Variable Usage Rates					
7	Inside City	$18,264,616	$18,264,616	$18,264,616	$18,264,616	$18,264,616
8	Outside City-Loma Linda	$1,573,967	$1,573,967	$1,573,967	$1,573,967	$1,573,967
9	Total	$19,838,583	$19,838,583	$19,838,583	$19,838,583	$19,838,583
10						
11	Total Revenues	$45,791,490	$45,791,490	$45,791,490	$45,791,490	$45,791,490

8.1.5. PROJECTED O&M EXPENSES

Projected O&M expenses for the FY 2027 - FY 2031 planning horizons were based on a starting point of the Department's FY 2026 budget. O&M expenses are projected forward based on the cost escalation factors shown in

the top half of Table 8-4. These cost escalation factors were developed in consultation with Department Staff. Actual projected O&M expenses are shown in the bottom half of Table 8-4.

Table 8-4: Projected O&M Expenses

Line	Expense	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	General	2.5%	2.5%	2.5%	2.5%	2.5%
2	Salary	4.0%	4.0%	4.0%	4.0%	4.0%
3	Benefits	6.0%	6.0%	6.0%	6.0%	6.0%
4	Utilities	8.0%	8.0%	8.0%	8.0%	8.0%
5						
6	O&M Expenditures					
7	Administrative Division	$14,950,638	$15,418,856	$15,903,629	$16,405,636	$16,925,585
8	Water Reclamation Division	$25,779,748	$26,992,473	$28,273,264	$29,626,507	$31,056,898
9	RIX	$5,910,984	$6,142,989	$6,386,171	$6,641,180	$6,908,707
10	Total Wastewater Utility O&M	$46,641,370	$48,554,318	$50,563,064	$52,673,323	$54,891,191
11	Annual % Change	2.31%	4.10%	4.14%	4.17%	4.21%

8.1.6. PROJECTED CIP EXPENDITURES

CIP expenditures made by the Department are generally paid in two primary ways: rate revenues (also known as PAYGO funding) and external debt financing. Table 8-5 shows projected CIP expenditures for FY 2027 - FY 2031 as provided by Department Staff.

Table 8-5: Projected CIP Expenses

Line	CIP Project Category	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Treatment					
2	Repair and Replacement Projects	$11,387,025	$8,633,493	$12,787,119	$9,292,214	$9,639,541
3	New Wastewater System Projects	$6,667,150	$10,183,529	$10,384,695	$9,472,645	$18,361,031
4	Other Funded Projects	$1,205,685	$2,774,293	$2,858,909	$0	$0
5	Total Treatment CIP	$19,259,860	$21,591,315	$26,030,722	$18,764,859	$28,000,573
6						
7	Collection					
8	Repair and Replacement Projects	$1,061,415	$1,396,438	$3,939,549	$4,099,174	$1,359,646
9	New Wastewater System Projects	$3,104,381	$6,398,130	$3,296,636	$0	$0
10	Other Funded Projects	$1,339,650	$8,017,573	$8,262,109	$56,385	$58,105
11	Total Collection CIP	$5,505,446	$15,812,141	$15,498,295	$4,155,559	$1,417,751
12						
13	RIX					
14	Repair and Replacement Projects	$883,757	$917,508	$1,002,396	$992,372	$1,069,123
15	New Wastewater System Projects	$1,504,530	$424,772	$875,455	$902,157	$464,836
16	Total RIX	$2,388,287	$1,342,280	$1,877,852	$1,894,529	$1,533,960
17						
18	Total CIP	$27,153,593	$38,745,736	$43,406,868	$24,814,947	$30,952,283
19	% of CIP in Financial Plan	70%	70%	70%	55%	55%
20	Total CIP Included in Financial Plan	$20,637,766	$28,238,900	$31,530,013	$14,025,012	$18,135,876

8.1.7. PROJECTED DEBT SERVICE PAYMENTS

Table 8-6 shows the Department's projected water utility debt service payments for the period FY 2027 - FY 2031. The proposed debt service payments shown in lines 3 and 4 of Table 8-6 reflect the Department's preferred capital financing plan for the wastewater treatment system, which includes issuing revenue bonds in the amount of $30,000,000 in FY 2028.

Table 8-6: Projected Debt Service Payments

Line	Debt Service	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Existing Debt Service	$1,964,400	$1,968,000	$1,968,897	$1,967,028	$1,967,213
2	Proposed Revenue Bond Debt Service	$0	$1,827,411	$1,827,411	$1,827,411	$1,827,411
3	Total Debt Service	$1,964,400	$3,795,411	$3,796,308	$3,794,439	$3,794,624

8.1.8. CASH RESERVES AND DEBT SERVICE COVERAGE

The Department's financial plan is based on the maintenance of the cash reserve and debt service coverage targets shown in Table 8-7.

Table 8-7: Cash Reserves and Debt Service Coverage Targets

Line	Description	Metric	Description
1	Operating Reserve	45	Days of Annual O&M Expenses
2	Rate Stabilization Reserve	20%	of Total Wastewater Sales
3	Emergency Reserve	2%	of Capital Assets
4	Capital Reserve	5	Year Average and Rate-Funded PAYGO CIP
5	Target Debt Service Coverage	175%	Annual Debt Service Coverage

8.1.9. PROJECTED WASTEWATER UTILITY FINANCIAL PLAN

Table 8-8 shows the proposed wastewater utility financial plan for the period FY 2027 - FY 2031. This financial plan reflects the Department's preferred capital financing strategy as determined by Department staff. Line 1 of Table 8-8 indicates the proposed annual revenue increases. Line 2 shows the proposed use of external debt financing in the amount of $30,000,000 in FY 2028. The derivation of key sections of Table 8-8 are described below:

- Lines 1 - 2 reflect the Department Staff's preferred wastewater utility financing strategy for the period FY 2027 - FY 2031. Specifically, it reflects the combination of revenue increases and external debt financing determined to best meet the financial needs of the wastewater utility.

- Lines 4 - 8 show the projection of rate revenues and miscellaneous non-rate revenues during the FY 2027 - FY 2031 planning horizon. The miscellaneous non-rate revenues shown in Rows 27-42 were developed in consultation with Department staff.

- Lines 11 - 15 show projected O&M expenses for the FY 2027 - FY 2031 planning horizon (as originally shown in Table 6-4).

- Lines 16 - 18 show projected debt service expenditures for the FY 2027 - 2031 planning horizon (as originally shown in Table 8-6).

- Line 20 shows, for the FY 2027 - FY 2031 planning horizon, projected CIP expenditures. The details of each proposed CIP project is summarized in Table 8-5.

- Lines 25 - 31 reflect the Department's projected beginning and ending cash reserves for the FY 2027 - FY 2031 planning horizon based on the projected net cashflow (line 22) and use of debt financing to fund CIP expenditures.

Table 8-8: Wastewater Utility Financial Plan for FY 2027 - FY 2031

Line	Description	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
1	Annual Rate Increase	7.0%	7.0%	7.0%	6.0%	5.0%
2	Proposed Revenue Bond Issue	$0	$30,000,000	$0	$0	$0
3	Revenues					
4	Revenues from Rates	$48,996,927	$52,426,712	$56,096,582	$59,462,377	$62,435,496
5	Service Charges and Other Revenue	$1,030,000	$1,030,000	$1,030,000	$1,030,000	$1,030,000
6	Interest Revenue	$451,317	$395,280	$376,728	$301,446	$220,339
7	Capacity Charges	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
8	Other Non-Operating Revenue	$310,000	$310,000	$310,000	$310,000	$310,000
9	**Total Revenues**	**$52,788,244**	**$56,161,992**	**$59,813,310**	**$63,103,823**	**$65,995,835**
10	Expenditures					
11	O&M					
12	Administration Division	$14,950,638	$15,418,856	$15,903,629	$16,405,636	$16,925,585
13	Reclamation Division	$25,779,748	$26,992,473	$28,273,264	$29,626,507	$31,056,898
14	RIX	$5,910,984	$6,142,989	$6,386,171	$6,641,180	$6,908,707
15	**Total O&M**	**$46,641,370**	**$48,554,318**	**$50,563,064**	**$52,673,323**	**$54,891,191**
16	Debt Service					
17	Existing Debt Service	$1,964,400	$1,968,000	$1,968,897	$1,967,028	$1,967,213
18	Proposed Revenue Bond Debt Service	$0	$1,827,411	$1,827,411	$1,827,411	$1,827,411
19	**Total Debt Service**	**$1,964,400**	**$3,795,411**	**$3,796,308**	**$3,794,439**	**$3,794,624**
20	**Rate Funded Capital**	**$19,387,766**	**$0**	**$14,768,913**	**$14,025,012**	**$18,135,876**
21	**Total Expenditures**	**$67,993,536**	**$52,349,729**	**$69,128,285**	**$70,492,775**	**$76,821,691**
22	**Net Cash Flow**	**-$15,205,292**	**$3,812,263**	**-$9,314,975**	**-$7,388,952**	**-$10,825,856**
23	**Beginning Balance**	**$53,466,615**	**$37,248,027**	**$42,203,285**	**$33,519,133**	**$27,071,536**
24	**Ending Balance**	**$64,534,418**	**$79,757,783**	**$63,344,342**	**$58,085,484**	**$49,401,461**
25	Target Balances					
26	Operating Reserve	$5,750,306	$5,986,149	$6,233,802	$6,493,971	$6,767,407
27	Rate Stabilization Reserve	$9,799,385	$10,485,342	$11,219,316	$11,892,475	$12,487,099
28	Emergency Replacement Reserve	$4,645,631	$4,785,000	$4,928,550	$5,076,406	$5,228,698
29	Capital Replacement Reserve	$12,576,229	$12,953,516	$13,342,121	$13,742,385	$14,154,656
30	**Total Target Balance**	**$32,771,551**	**$34,210,006**	**$35,723,790**	**$37,205,238**	**$38,637,861**
31	**Over/Under Target**	**$31,762,867**	**$45,547,777**	**$27,620,553**	**$20,880,247**	**$10,763,600**

Figure 8-1 provides a graphical representation of wastewater utility financial plan for the period FY 2027 - FY

Figure 8-1: FY 2027 – FY 2031 Wastewater Utility Financial Plan

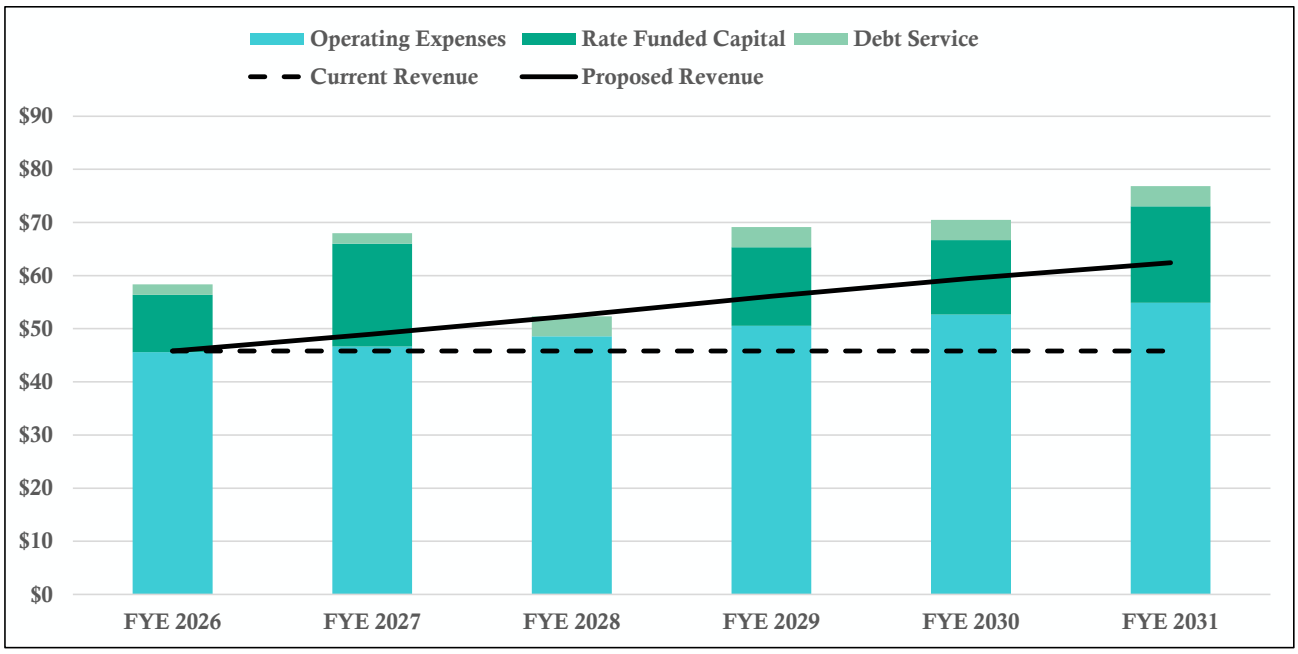
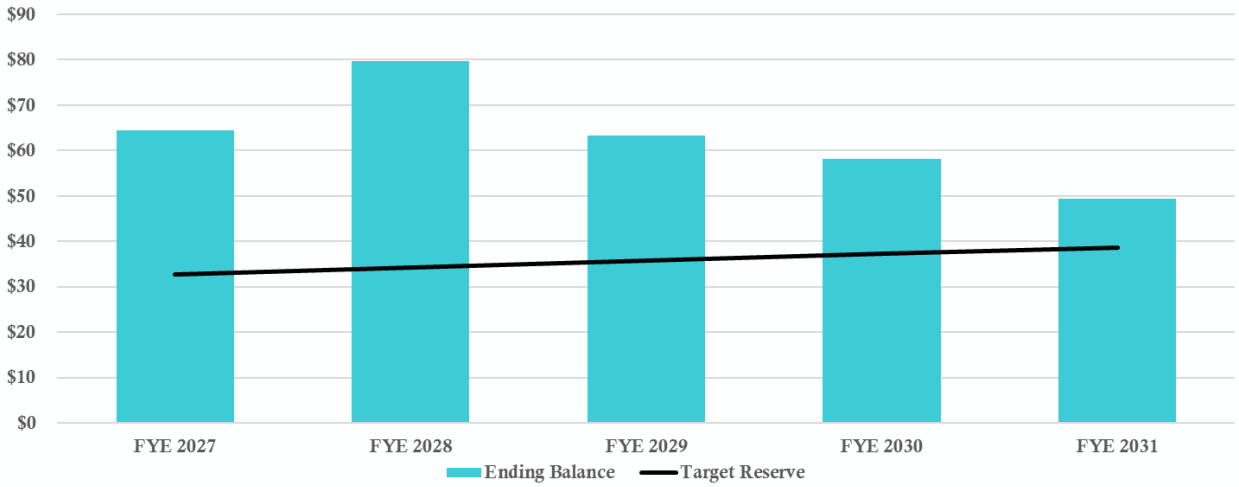


Figure 8-2 provides a graphical representation of wastewater utility cash reserves for the period FY 2027 - FY 2031 (as shown in line 24 of Table 8-8).

Figure 8-2: Wastewater Utility Cash Reserves (Millions)



9. Wastewater COS Analysis

9.1.1. COST OF SERVICE METHODOLOGY

A COS analysis distributes a utility's revenue requirements from rates (costs) to each customer class based on their proportionate share of total system wastewater demand. The COS analysis completed by Raftelis follows industry standard cost allocation principles as presented in WEF Manual 27.

9.1.2. REVENUE REQUIREMENT COST COMPONENTS

The starting point of the wastewater COS analysis is to identify the operating and capital cost components of the annual revenue requirement. Table 9-1 shows this for the Department's FY 2027 wastewater utility revenue requirement. All the information shown in Table 9-1 was derived from the FY 2027 column in Table 8-8. As shown on line 21, the total revenue requirement is $48,996,894. This matches line 4 of the FY 2027 column in Table 8-8.

Table 9-1: FY 2027 Revenue Requirement Cost Components

Line	Revenue Requirement	Operating	Capital	Total
1	Costs			
2	O&M Expenses	$46,641,370	$0	$46,641,370
3	Debt Service	$0	$1,964,400	$1,964,400
4	PAYGO Capital	$0	$19,387,766	$19,387,766
5	Gross Revenue Requirement	$46,641,370	$21,352,166	$67,993,536
6				
7	Revenue Offsets			
8	Service Charges and Other Revenue	$1,030,000	$0	$1,030,000
9	Interest Revenue	$0	$451,317	$451,317
10	Capacity Charges	$0	$2,000,000	$2,000,000
11	Other Non-Operating Revenue	$310,000	$0	$310,000
12	Total - Revenue Offsets	$1,340,000	$2,451,317	$3,791,317
13				
14	Net Revenue Requirement	$45,301,370	$18,900,849	$64,202,219
15				
16	Adjustments			
17	Net Cash Flow (Change in Cash Reserves)	($15,205,292)	$0	($15,205,292)
18	Adjustment to Annualize Rate Increase	$0	$0	$0
19	Total - Adjustments	($15,205,292)	$0	($15,205,292)
20				
21	Total Revenue to be Recovered from Rates	$30,096,078	$18,900,849	$48,996,927

9.1.3. COST CAUSATION COMPONENTS

After determining the FY 2027 operating and capital cost revenue requirement components, the next step in the cost of service process is to assign the revenue requirement from rates to specific functional categories and cost causation components. The assignment of costs to functional categories answers the question, what wastewater utility functions are supported (i.e., paid for) by the rate revenue provided by customers? Functional categories for wastewater utilities may include, but are not necessarily limited to:

- Volume of Flow
- Biochemical Oxygen Demand (a measurement of the strength of customer sewer discharges)
- Total Suspended Solids (also a measurement of the strength of customer sewer discharges)
- Supply
- Customer Service
- Customer Billing
- General

9.1.4. MASS BALANCE ANALYSIS

The Department originally created its wastewater customer classes to recognize differences in their service characteristics and demand patterns. The COS analysis calculates cost responsibility for those classes based on their demand, thereby establishing a nexus between costs and rates. The annual cost of providing wastewater service is distributed among customer classes in proportion to their service requirements as measured by the cost causation components described above in Section 9.1.3.

Wastewater cost causation components critical in defining the rates ultimately paid by different customer classes are related to the volume and strength loadings of the sanitary sewer flow they send to the wastewater treatment plant. The volume of flow is measured by estimating the amount of billed water consumption that will return to the wastewater treatment plant. For example, because of their outdoor irrigation usage, single family residential customers contribute significantly less flow to the wastewater treatment plant than their actual billed water consumption. The strength of sanitary sewer discharges is measured by Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) which reflect the pounds of pollutants in customer class sanitary sewer flows. BOD and TSS strength loadings can vary significantly by customer type with industrial customers generally having the highest strength loadings.

A "mass balance analysis" helps to identify the appropriate units of volume, BOD, and TSS demand that should be allocated to each customer class. This is accomplished by estimating the volume of flow and strength loadings contributed by each customer class to the influent stream monitored at the Department's water reclamation plant (WRP). The aggregate of all customer class contributed flows and strength loadings are compared to the metered volume of influent and the tested influent strength loadings received at the WRP. If these two totals approximate each other (i.e., if they are in approximate balance) it serves to verify the appropriateness of the total system units of service for each cost causation component and the units of service used to allocate the wastewater revenue requirement to customer classes. The assumptions made in the mass balance analysis are shown in Table 9-2.

Table 9-2: Mass Balance Analysis Assumptions

Item	Customer Class	Basis for Assumption
Return Flows	Residential	Estimate developed in consultations between Raftelis and Department Staff
	Multi-Family (2 Units)	Estimate developed in consultations between Raftelis and Department Staff
	Multi-Family (3 Units)	2019 Sewer Master Plan Update
	Non-Residential	Raftelis estimate made after consulting the 2019 Sewer Master Plan Update
	Industrial	100% return flow because all Industrial customers have sewer discharge meters
Strength Loadings	All	2017 Update of the Sanitation District of Los Angeles Revenue Program Report, 1998 State Water Control Board Revenue Program Guidelines, or estimates developed by Raftelis in consultation with the Department Staff.

Table 9-3 shows the reconciliation of the aggregate estimated customer class contributed flows and strength loadings compared to the metered and strength tested influent at the WRP. The source of the information presented in Table 9-3 is provided in the notes at the bottom of the table.

Table 9-4 shows a detail of the estimated flow and strength contributions of each customer class. The flow assumptions presented in Table 9-4 were based on actual billed water consumption data unless otherwise noted. The return flow assumptions used in Table 9-4 were developed by Raftelis in consultation with Department Staff. The source of the strength loadings assumed for each customer class are noted in Table 9-4.

Table 9-3: Mass Balance Reconciliation

Line	Flow Metric	Flow (mgd)	Flow (hcf/yr)	BOD (mg/L)	TSS (mg/L)	BOD (lbs/yr)	TSS (lbs/yr)
1	Inside City	13.55	6,609,251	305.35	260.87	12,601,749	10,765,891
2	Loma Linda	1.86	906,263	257.31	245.28	1,456,099	1,388,004
3	Estimated Flow Contributed by Customers	15.40	7,515,514	299.56	258.99	14,057,849	12,153,895
4							
5	Add Estimated Inflow and Infiltration (3%)	0.463	225,725	303	244	427,552	343,443
6	Total Estimated WRP Influent	15.87	7,741,239			14,485,400	12,497,338
7							
8	Total Plant Influent	15.42	7,524,190	303.41	243.72	14,251,717	11,448,110
9	Total Metered Plant Influent	15.42	7,524,190			14,251,717	11,448,110
10							
11	Difference	0.44	217,049			233,683	1,049,228
12	Percentage Difference	*2.9%*	*2.9%*			*1.6%*	*9.2%*

Note 1: Customer contributed flows, BOD poundage, and TSS poundage are based on billed water consumption, wastewater return flow, and strength loading assumptions detailed in Table 7-4.
Note 2: Estimate of 3% annual infiltration and Inflow (I/I) made by Raftelis.
Note 3: Water Reclamation Plant influent volumes, BOD poundage, and TSS poundage based on data provided by Department staff

Table 9-4: Mass Balance Analysis - Estimated Flow and Strength Contributions to the WRP

Line	San Bernardino (Inside City)	Water Use Before Return Flow		SBMWD 2019 Master Plan	Customer Flows to the Treatment Plant		Strength Loading Assumptions				Source of Strength Estimate
		Flow (mgd)	Flow (hcf/yr)	Return Factor (%)	Flow (mgd)	Flow (hcf/yr)	BOD (mg/L)	TSS (mg/L)	BOD (lbs/yr)	TSS (lbs/yr)	
1	All Residential Customers - Domestic Strength										
2	Residential	13.39	6,532,163	40.0%	5.35	2,612,865	250	240	4,077,883	3,914,768	Estimate
3	Multi-Family (2 Units)	0.64	313,635	55.0%	0.35	172,499	250	240	269,219	258,450	Estimate
4	Multi-Family (3 Units)	0.26	126,676	65.0%	0.17	82,339	250	240	128,507	123,366	Estimate
5											
6	Commercial Customers - Low Strength										
7	Laundromats	0.15	71,648	100.0%	0.15	71,648	150	110	67,092	49,201	1998 State Water Control Board Revenue Program Guidelins
8	Schools, Churches, Nursery Schools	0.64	313,983	85.0%	0.55	266,886	130	100	216,594	166,611	1998 State Water Control Board Revenue Program Guidelins
9											
10	Commercial Customers - Medium Strength										
11	Mutli-Family, Mobile Home Parks (4 or more units)	3.61	1,759,557	85.0%	3.07	1,495,623	250	240	2,334,211	2,240,842	Estimate
12	Retail, Commerical, Light Industrial	1.62	792,358	95.0%	1.54	752,740	258	276	1,210,638	1,295,101	LACSD 2017 Revenue Program Report (Store)
13	Auto Repair, Car Wash	0.22	108,515	85.0%	0.19	92,238	258	276	148,347	158,696	LACSD 2017 Revenue Program Report (Repair Shop)
14	Office, Motels (without Restaurants)	1.07	520,129	95.0%	1.01	494,123	258	270	794,701	831,664	LACSD 2017 Revenue Program Report (Office Building)
15	Hospitals, Convalescent Homes	0.34	166,811	85.0%	0.29	141,789	259	249	229,102	220,616	LACSD 2017 Revenue Program Report
16											
17	Commercial Customers - High Strength										
18	Restaurants, Hotels	0.35	172,165	85.0%	0.30	146,340	999	599	912,978	547,349	LACSD 2017 Revenue Program Report(Restautarnt)
19											
20	Domestic Liquid Waste	0.01	6,622	100.0%	0.01	6,622	5,400	12,000	223,227	496,059	1998 State Water Control Board Revenue Program Guidelins
21	Industrial	0.56	273,538	100.0%	0.56	273,538	1165	271	1,989,252	463,167	Actual Tested Strengths
22	Total Inside City	22.87	11,157,800		13.55	6,609,251			12,601,749	10,765,891	
23											
24		Water Use Before Return Flow			Customer Flows to the Treatment						
25	Loms Linda (Outsiude City)	Flow (mgd)	Flow (hcf/yr)	Return Factor (%)	Flow (mgd)	Flow (hcf/yr)	BOD (mg/L)	TSS (mg/L)	BOD (lbs/yr)	TSS (lbs/yr)	Source of Strength Estimate
26	All Residential Customers - Domestic Strength										
27	Residential	1.71	833,462	40.0%	0.68	333,385	250	240	520,312	499,499	Estimate
28	Multi-Family (2 Units)	0.08	40,018	55.0%	0.05	22,010	250	240	34,351	32,977	Estimate
29	Multi-Family (3 Units)	0.03	16,163	65.0%	0.02	10,506	250	240	16,397	15,741	Estimate
30											
31	Commercial Customers - Low Strength										
32	Laundromats	0.01	5,765	100.0%	0.01	5,765	150	110	5,398	3,959	1998 State Water Control Board Revenue Program Guidelins
33	Schools, Churches, Nursery Schools	0.03	12,256	85.0%	0.02	10,418	130	100	8,455	6,503	1998 State Water Control Board Revenue Program Guidelins
34											
35	Commercial Customers - Medium Strength										
36	Mutli-Family, Mobile Home Parks (4 or more units)	0.77	377,342	85.0%	0.66	320,741	250	240	500,578	480,555	Estimate
37	Retail, Commerical, Light Industrial	0.11	55,263	95.0%	0.11	52,500	258	276	84,436	90,327	LACSD 2017 Revenue Program Report (Store)
38	Auto Repair, Car Wash	0.02	9,104	85.0%	0.02	7,738	258	276	12,446	13,314	LACSD 2017 Revenue Program Report (Repair Shop)
39	Office, Motels (without Restaurants)	0.04	18,598	95.0%	0.04	17,668	258	270	28,416	29,737	LACSD 2017 Revenue Program Report (Office Building)
40	Hospitals, Convalescent Homes	0.11	55,400	85.0%	0.10	47,090	259	249	76,087	73,269	LACSD 2017 Revenue Program Report
41	Hospitals, Convalescent Homes - 20%	0.15	72,899	95.0%	0.14	69,254	259	249	111,900	107,755	
42											
43	Commercial Customers - High Strength										
44	Restaurants, Hotels	0.02	10,810	85.0%	0.02	9,189	999	599	57,325	34,367	1998 State Water Control Board Revenue Program Guidelins
45	Total Loma Linda	3.09	1,507,080	0	1.86	906,263	0	0	1,456,099	1,388,004	

Before the revenue requirement can be allocated to cost causation components and eventually distributed to customer classes, a basis for determining the annual amount of Inflow and Infiltration (I/I) received at the WRP must be determined. As shown in line 6 Table 9-5, Raftelis assumed that 3% of the volumes received at the Department's WRP were associated with I/I. Inflow is water introduced into the wastewater collection and conveyance system through direct connections such as manhole covers. Infiltration is water entering the wastewater collection system through leaky sewer pipelines. I/I volumes and strength loadings are allocated to customers because there is a cost to treat the I/I received at the wastewater treatment plant, and this cost must be borne by the customers whose rates pay for the wastewater utility system.

There is no industry standard, one-size-fits-all approach for the allocation of I/I in every situation. Methods for allocating I/I to customer classes range from relying entirely on the proportionate share of contributed volume from each customer class (100% volume) to relying entirely on the proportionate share of customer accounts/wastewater service connections (100% accounts). For this study, Raftelis has allocated I/I to customer classes based on 67% on accounts and 33% on contributed volumes. The rationale for this approach is that the majority of infiltration entering the wastewater system is from leaky connections from service lines that connect to individual customer premises. Table 9-5 shows this allocation.

Table 9-5: Allocation of Inflow and Infiltration Volumes

Line	Allocation of I/I Between Accounts & Volume	Percentage		
1	% of I/I Allocated on Accounts	67%		
2	% of I/I Allocated on Flow	33%		
3				
4	**FY 2022 Allocation of I/I Units**	**Estimated Flow (HCF)**	**Estimated COD Pounds**	**Estimated TSS Pounds**
5	Estimated I/I From Mass Balance	225,725	427,552	343,443
6				
7	Amount Allocated Based on Accounts	151,236	286,460	230,107
8	Amount Allocated Based on Flow	74,489	141,092	113,336
9	Total	225,725	427,552	343,443

9.1.5. ALLOCATION OF COSTS TO COST CAUSATION COMPONENTS

The process of allocating the wastewater revenue requirement to cost causation components begins with a review of the wastewater assets. The Department's WRP operations team maintains excellent asset records as part of its asset management process. Raftelis reviewed the Department's asset groupings to determine the percentage of assets that were used to meet demand in each cost causation component. The resulting percentages were used to allocate the capital cost portion of the FY 2027 revenue requirement and some of the Department's FY 2027 O&M costs. Table 9-6 shows outcome of this asset analysis.

Table 9-6: Allocation of Asset Values to Cost Component

Metric	Total	Flow	BOD	TSS	Customer Service	Billing	Admin
Asset Value	$182,612,850	$21,358,800	$80,049,985	$68,504,615	$0	$0	$12,699,450
% of Asset Value	100.0%	*11.7%*	*43.8%*	*37.5%*	0.0%	0.0%	*7.0%*

Table 9-7 shows the outcome of the process of allocating the FY 2027 revenue requirement to cost causation components. The total allocated revenue requirement for the treatment system is $37,969,524 as shown on line 9. The total allocated revenue requirement for the collection system is $11,027,370 as shown on line 20. These sum to the total system revenue requirement of $48,996,894 as shown on line 31.

Table 9-7: Allocation of FY 2027 Revenue Requirement to Cost Causation Components

Line	Treatment COS	Flow	BOD	TSS	CS	Billing	Admin/General (San Bernardino)	Admin/General (Loma Linda)	Total
1	O&M	$2,920,644	$10,946,190	$9,367,453	$476,313	$431,115	$12,345,247	$505,664	$36,992,626
2	Capital	$1,901,450	$7,126,386	$6,098,568	$0	$0	$917,282	$0	$16,043,686
3	Gross Revenue Requirement	$4,822,094	$18,072,575	$15,466,022	$476,313	$431,115	$13,262,530	$505,664	$53,036,312
4									
5	Less: Non-Rate Revenues	$237,409	$889,778	$761,448	$38,718	$35,044	$1,003,503	$41,104	$3,007,003
6	Net Revenue Requirement	$4,584,685	$17,182,797	$14,704,574	$437,595	$396,071	$12,259,027	$464,560	$50,029,309
7									
8	Add: Adjustments	($952,145)	($3,568,514)	($3,053,838)	($155,280)	($140,546)	($4,024,614)	($164,849)	($12,059,786)
9	Revenue Requirement from Rates	$3,632,540	$13,614,283	$11,650,736	$282,314	$255,526	$8,234,413	$299,711	$37,969,524
10									
11	Collection COS	Flow	BOD	TSS	CS	Billing	Admin/General (San Bernardino)	Admin/General (Loma Linda)	Total
12	O&M	$6,243,706	$0	$0	$125,958	$114,006	$3,165,075	$0	$9,648,744
13	Capital	$5,308,479	$0	$0	$0	$0	$0	$0	$5,308,479
14	Gross Revenue Requirement	$11,552,186	$0	$0	$125,958	$114,006	$3,165,075	$0	$14,957,224
15									
16	Less: Non-Rate Revenues	$507,529	$0	$0	$10,239	$9,267	$257,278	$0	$784,313
17	Net Revenue Requirement	$11,044,656	$0	$0	$115,719	$104,739	$2,907,797	$0	$14,172,910
18									
19	Add: Adjustments	($2,035,480)	$0	$0	($41,063)	($37,166)	($1,031,831)	$0	($3,145,540)
20	Revenue Requirement from Rates	$9,009,176	$0	$0	$74,656	$67,572	$1,875,966	$0	$11,027,370
21									
22	Combined Total System	Flow	BOD	TSS	CS	Billing	Admin/General (San Bernardino)	Admin/General (Loma Linda)	Total
23	O&M	$9,164,350	$10,946,190	$9,367,453	$602,270	$545,121	$15,510,322	$505,664	$46,641,370
24	Capital	$7,209,929	$7,126,386	$6,098,568	$0	$0	$917,282	$0	$21,352,166
25	Gross Revenue Requirement	$16,374,279	$18,072,575	$15,466,022	$602,270	$545,121	$16,427,605	$505,664	$67,993,536
26									
27	Less: Non-Rate Revenue	$744,938	$889,778	$761,448	$48,956	$44,311	$1,260,781	$41,104	$3,791,316
28	Net Revenue Requirement	$15,629,341	$17,182,797	$14,704,574	$553,314	$500,810	$15,166,824	$464,560	$64,202,220
29									
30	Add: Adjustments	($2,987,625)	($3,568,514)	($3,053,838)	($196,343)	($177,712)	($5,056,444)	($164,849)	($15,205,326)
31	Revenue Requirement from Rates	$12,641,716	$13,614,283	$11,650,736	$356,971	$323,098	$10,110,379	$299,711	$48,996,894

9.1.6. TREATMENT UNIT COST OF SERVICE

Table 9-8 shows the outcome of the process of allocating the FY 2027 treatment revenue requirement to cost causation components and the calculation of the unit cost of service for each of these components. Note that there is no cost causation component for Loma Linda customer service or billing. This is because these services are not performed by the Department. Rows 46 - 49 in Table 9-8 show the final unit cost of service calculation.

Table 9-8: Treatment Unit Cost of Service

Line	Units of Service San Bernardino (Inside City)	FLOW	BOD	TSS	San Bernardino (Inside City) CS	 Billing	 Admin	Loma Linda (Outside City) CS	 Billing	 Admin	 Admin
1	Residential	2,612,865	4,077,883	3,914,768	407,510	407,510	407,510				407,510
2	Multi-Family (2 Units)	172,499	269,219	258,450	30,752	30,752	30,752				30,752
3	Multi-Family (3 Units)	82,339	128,507	123,366	14,028	14,028	14,028				14,028
4											
5	Laundromats	71,648	67,092	49,201	248	248	248				248
6	Schools, Churches, Nursery Schools	266,886	216,594	166,611	2,924	2,924	2,924				2,924
7											
8	Mutli-Family, Mobile Home Parks (4 or more units)	1,495,623	2,334,211	2,240,842	11,915	11,915	11,915				11,915
9	Retail, Commerical, Light Industrial	752,740	1,210,638	1,295,101	17,336	17,336	17,336				17,336
10	Auto Repair, Car Wash	92,238	148,347	158,696	2,881	2,881	2,881				2,881
11	Office, Motels (without Restaurants)	494,123	794,701	831,664	7,570	7,570	7,570				7,570
12	Hospitals, Convalescent Homes	141,789	229,102	220,616	498	498	498				498
13											
14	Restaurants, Hotels	146,340	912,978	547,349	3,155	3,155	3,155				3,155
15											
16	Domestic Liquid Waste	6,622	223,227	496,059	168	168	168				168
17	Industrial	273,538	1,989,252	463,167	156	156	156				156
18	Total Inside City	6,609,251	12,601,749	10,765,891	499,141	499,141	499,141				499,141
19											
20	**LOMA LINDA**										
21	Residential	333,385	520,312	499,499				28,222	28,222	28,222	28,222
22	Multi-Family (2 Units)	22,010	34,351	32,977				2,067	2,067	2,067	2,067
23	Multi-Family (3 Units)	10,506	16,397	15,741				931	931	931	931
24											
25	Laundromats	5,765	5,398	3,959				14	14	14	14
26	Schools, Churches, Nursery Schools	10,418	8,455	6,503				37	37	37	37
27											
28	Mutli-Family, Mobile Home Parks (4 or more units)	320,741	500,578	480,555				2,379	2,379	2,379	2,379
29	Retail, Commerical, Light Industrial	52,500	84,436	90,327				491	491	491	491
30	Auto Repair, Car Wash	7,738	12,446	13,314				65	65	65	65
31	Office, Motels (without Restaurants)	17,668	28,416	29,737				377	377	377	377
32	Hospitals, Convalescent Homes	47,090	76,087	73,269				179	179	179	179
33	Hospitals, Convalescent Homes - 20%	69,254	111,900	107,755				61	61	61	61
34											
35	Restaurants, Hotels	9,189	57,325	34,367				178	178	178	178
36											
37	Domestic Liquid Waste	0	0	0				0	0	0	0
38	Industrial	0	0	0				0	0	0	0
39	Total Loma Linda	906,263	1,456,099	1,388,004				35,000	35,000	35,000	35,000
40											
41	Total Sytem Before I/I	7,515,514	14,057,849	12,153,895	499,141	499,141	499,141	35,000	35,000	35,000	534,141
42											
43	Infiltration and Inflow	225,725	427,552	343,443							
44	Total System After I/I	7,741,239	14,485,400	12,497,338	499,141	499,141	499,141	35,000	35,000	35,000	534,141
45											

46	UNIT COST OF SERVICE	FLOW	BOD	TSS	CS	Billing	Admin/General (San Bernardino)	Admin/General (Loma Linda)	Total
47	Revenue Requirement	$3,632,540	$13,614,283	$11,650,736	$282,314	$255,526	$8,234,413	$299,711	$37,969,524
48	Units of Service	7,741,239	14,485,400	12,497,338	499,141	499,141	499,141	35,000	
49	Unit Cost of Service	$0.47	$0.94	$0.93	$0.57	$0.51	$16.50	$8.56	

9.1.7. TREATMENT CUSTOMER CLASS REVENUE REQUIREMENTS

Table 9-9 shows the outcome of the process of allocating the FY 2027 treatment revenue requirement customer classes. This is accomplished by multiplying the unit cost of service for each causation component by the appropriate customer class units of service. Note that the total treatment COS of $37,969,524 (line 34) matches the treatment COS shown in line 9 of Table 9-7. This confirms the integrity of the cost allocation process.

Table 9-9: Allocation of FY 2027 Treatment Revenue Requirement to Customer Classes

			Flow and Strength (Variable)					Customer (Fixed)				
Line	Customer Class	Total	Total Flow and Strength	I/I Flow	Flow	BOD	TSS	Total Fixed	I/I Accounts	Inside CS	Inside Billing	Admin
	San Bernardino (Inside City)											
1	Residential	$16,388,359	$8,803,284	$94,988	$1,226,075	$3,832,649	$3,649,571	$7,585,075	$423,209	$230,488	$208,617	$6,722,761
2	Multi-Family (2 Units)	$1,153,580	$581,186	$6,271	$80,944	$253,028	$240,942	$572,394	$31,937	$17,393	$15,743	$507,321
3	Multi-Family (3 Units)	$538,525	$277,418	$2,993	$38,637	$120,779	$115,009	$261,106	$14,568	$7,934	$7,181	$231,422
4												
5	Laundromats	$149,767	$145,151	$2,605	$33,620	$63,058	$45,868	$4,616	$258	$140	$127	$4,091
6	Schools, Churches, Nursery Schools	$548,255	$493,830	$9,702	$125,235	$203,568	$155,324	$54,425	$3,037	$1,654	$1,497	$48,238
7												
8	Mutli-Family, Mobile Home Parks (4 or more units)	$5,260,841	$5,039,065	$54,372	$701,814	$2,193,837	$2,089,042	$221,777	$12,374	$6,739	$6,100	$196,564
9	Retail, Commerical, Light Industrial	$3,048,464	$2,725,785	$27,365	$353,220	$1,137,833	$1,207,367	$322,679	$18,004	$9,805	$8,875	$285,995
10	Auto Repair, Car Wash	$387,631	$334,007	$3,353	$43,282	$139,425	$147,946	$53,625	$2,992	$1,629	$1,475	$47,528
11	Office, Motels (without Restaurants)	$1,912,965	$1,772,062	$17,963	$231,865	$746,910	$775,325	$140,902	$7,862	$4,282	$3,875	$124,884
12	Hospitals, Convalescent Homes	$501,953	$492,684	$5,155	$66,534	$215,324	$205,671	$9,269	$517	$282	$255	$8,216
13												
14	Restaurants, Hotels	$1,501,059	$1,442,334	$5,320	$68,669	$858,074	$510,270	$58,725	$3,277	$1,784	$1,615	$52,049
15												
16	Domestic Liquid Waste	$678,732	$675,605	$241	$3,107	$209,802	$462,455	$3,127	$174	$95	$86	$2,772
17	Industrial	$2,442,618	$2,439,715	$9,944	$128,357	$1,869,623	$431,791	$2,904	$162	$88	$80	$2,574
18	Total Inside City	$34,512,748	$25,222,124	$240,273	$3,101,360	$11,843,910	$10,036,581	$9,290,623	$518,370	$282,314	$255,526	$8,234,413
19	Adjusted Revenue Requirement	$34,512,748	$25,222,124	$240,273	$3,101,360	$11,843,910	$10,036,581	$9,290,623	$518,370	$282,314	$255,526	$8,234,413
20			0%					0.0%				
21	**Loma Linda (Outside City)**											
22	Residential	$1,394,221	$1,123,243	$12,120	$156,439	$489,021	$465,662	$270,979	$29,309	$0	$0	$241,670
23	Multi-Family (2 Units)	$93,999	$74,156	$800	$10,328	$32,285	$30,743	$19,843	$2,146	$0	$0	$17,697
24	Multi-Family (3 Units)	$44,339	$35,397	$382	$4,930	$15,411	$14,674	$8,942	$967	$0	$0	$7,975
25												
26	Laundromats	$11,809	$11,679	$210	$2,705	$5,074	$3,691	$130	$14	$0	$0	$116
27	Schools, Churches, Nursery Schools	$19,636	$19,276	$379	$4,888	$7,946	$6,063	$360	$39	$0	$0	$321
28												
29	Mutli-Family, Mobile Home Parks (4 or more units)	$1,103,483	$1,080,642	$11,660	$150,506	$470,475	$448,001	$22,841	$2,470	$0	$0	$20,370
30	Retail, Commerical, Light Industrial	$194,826	$190,110	$1,909	$24,635	$79,358	$84,208	$4,716	$510	$0	$0	$4,206
31	Auto Repair, Car Wash	$28,641	$28,022	$281	$3,631	$11,697	$12,412	$619	$67	$0	$0	$552
32	Office, Motels (without Restaurants)	$66,980	$63,363	$642	$8,291	$26,707	$27,723	$3,617	$391	$0	$0	$3,226
33	Hospitals, Convalescent Homes	$165,345	$163,626	$1,712	$22,097	$71,512	$68,306	$1,719	$186	$0	$0	$1,533
34	Hospitals, Convalescent Homes - 20%	$241,227	$240,641	$2,518	$32,497	$105,170	$100,456	$586	$63	$0	$0	$522
35												
36	Restaurants, Hotels	$92,271	$90,562	$334	$4,312	$53,877	$32,039	$1,709	$185	$0	$0	$1,524
37		$0										
38	Domestic Liquid Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	Industrial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	Total Loma Linda	$3,456,776	$3,120,716	$32,946	$425,260	$1,368,533	$1,293,977	$336,059	$36,348	$0	$0	$299,711
41												
42	Total System	$37,969,524	$28,342,841	$273,219	$3,526,619	$13,212,444	$11,330,558	$9,626,683	$554,718	$282,314	$255,526	$8,534,125

9.1.8. COLLECTION SYSTEM UNIT COST OF SERVICE

Table 9-10 shows outcome of the process of allocating the FY 2027 collection system revenue requirement to cost causation components and the calculation of the unit cost of service for each of these components. Note that collection system costs are not allocated to Loma Linda. Rows 46 - 49 in Table 9-10 show the final unit cost of service calculation.

Table 9-10: Collection System Unit Cost of Service

	Units of Service				Inside			Outside			
Line	San Bernardino (Inside City)	FLOW	BOD	TSS	CS	Billing	Admin	CS	Billing	Admin	Admin
1	Residential	2,612,865	4,077,883	3,914,768	407,510	407,510	407,510				407,510
2	Multi-Family (2 Units)	172,499	269,219	258,450	30,752	30,752	30,752				30,752
3	Multi-Family (3 Units)	82,339	128,507	123,366	14,028	14,028	14,028				14,028
4											
5	Laundromats	71,648	67,092	49,201	248	248	248				248
6	Schools, Churches, Nursery Schools	266,886	216,594	166,611	2,924	2,924	2,924				2,924
7											
8	Mutli-Family, Mobile Home Parks (4 or more units)	1,495,623	2,334,211	2,240,842	11,915	11,915	11,915				11,915
9	Retail, Commerical, Light Industrial	752,740	1,210,638	1,295,101	17,336	17,336	17,336				17,336
10	Auto Repair, Car Wash	92,238	148,347	158,696	2,881	2,881	2,881				2,881
11	Office, Motels (without Restaurants)	494,123	794,701	831,664	7,570	7,570	7,570				7,570
12	Hospitals, Convalescent Homes	141,789	229,102	220,616	498	498	498				498
13											
14	Restaurants, Hotels	146,340	912,978	547,349	3,155	3,155	3,155				3,155
15											
16	Domestic Liquid Waste	6,622	223,227	496,059	168	168	168				168
17	Industrial	273,538	1,989,252	463,167	156	156	156				156
18	Total Inside City	6,609,251	12,601,749	10,765,891	499,141	499,141	499,141				499,141
19											
20	LOMA LINDA										
21	Residential										
22	Multi-Family (2 Units)										
23	Multi-Family (3 Units)										
24											
25	Laundromats										
26	Schools, Churches, Nursery Schools										
27											
28	Mutli-Family, Mobile Home Parks (4 or more units)										
29	Hospitals, Convalescent Homes										
30	Hospitals, Convalescent Homes - 20%										
31	Retail, Commerical, Light Industrial										
32	Auto Repair, Car Wash										
33	Office, Motels (without Restaurants)										
34											
35	Restaurants, Hotels										
36											
37	Domestic Liquid Waste										
38	Industrial										
39	Total Loma Linda										
40											
41	Total Sytem Before I/I	6,609,251	12,601,749	10,765,891	499,141	499,141	499,141	0	0	0	499,141
42											
43	Infiltration and Inflow	225,725	427,552	343,443							
44	Total System After I/I	6,834,976	13,029,301	11,109,334	499,141	499,141	499,141	0	0	0	499,141

Loma Linda does not use the Department's collection system. Therefore, Loma Linda has no collection sytem units of service

9.1.9. COLLECTION SYSTEM CUSTOMER CLASS REVENUE REQUIREMENTS

Table 9-11 shows outcome of process of allocating the FY 2027 collection system revenue requirement customer classes. This is accomplished by multiplying the units cost of service for each causation component by the appropriate customer class units of service. Note that the total collection system COS of $11,027,370 (line 42) matches the collection system COS shown in line 20 of Table 9-7. This confirms the integrity of the cost allocation process.

Table 9-11: Allocation of FY 2027 Collection System Revenue Requirement to Customer Classes

			Flow and Strength (Variable)					Customer (Fixed)				
Line	Customer Class	Total	Total Flow and Strength	I/I Flow	Flow	BOD	TSS	Total Fixed	I/I Accounts	Inside CS	Inside Billing	Admin
	San Bernardino (Inside City)											
1	Residential	$5,293,279	$3,482,831	$38,816	$3,444,015	$0	$0	$1,810,448	$162,749	$60,951	$55,167	$1,531,581
2	Multi-Family (2 Units)	$366,556	$229,934	$2,563	$227,371	$0	$0	$136,622	$12,282	$4,600	$4,163	$115,578
3	Multi-Family (3 Units)	$172,077	$109,755	$1,223	$108,531	$0	$0	$62,322	$5,602	$2,098	$1,899	$52,723
4												
5	Laundromats	$96,605	$95,504	$1,064	$94,439	$0	$0	$1,102	$99	$37	$34	$932
6	Schools, Churches, Nursery Schools	$368,737	$355,746	$3,965	$351,782	$0	$0	$12,990	$1,168	$437	$396	$10,990
7												
8	Mutli-Family, Mobile Home Parks (4 or more units)	$2,046,533	$1,993,598	$22,218	$1,971,380	$0	$0	$52,935	$4,759	$1,782	$1,613	$44,781
9	Retail, Commerical, Light Industrial	$1,080,387	$1,003,368	$11,182	$992,186	$0	$0	$77,019	$6,924	$2,593	$2,347	$65,155
10	Auto Repair, Car Wash	$135,748	$122,949	$1,370	$121,578	$0	$0	$12,799	$1,151	$431	$390	$10,828
11	Office, Motels (without Restaurants)	$692,274	$658,643	$7,340	$651,302	$0	$0	$33,631	$3,023	$1,132	$1,025	$28,451
12	Hospitals, Convalescent Homes	$191,211	$188,999	$2,106	$186,892	$0	$0	$2,212	$199	$74	$67	$1,872
13												
14	Restaurants, Hotels	$209,082	$195,065	$2,174	$192,891	$0	$0	$14,017	$1,260	$472	$427	$11,858
15												
16	Domestic Liquid Waste	$9,573	$8,827	$98	$8,728	$0	$0	$746	$67	$25	$23	$631
17	Industrial	$365,307	$364,614	$4,064	$360,551	$0	$0	$693	$62	$23	$21	$586
18	Total Inside City	$11,027,370	$8,809,832	$98,184	$8,711,648	$0	$0	$2,217,538	$199,344	$74,656	$67,572	$1,875,966
19												
20												
21	**LOMA LINDA**											
22	Residential	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	Multi-Family (2 Units)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Multi-Family (3 Units)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25		$0						$0	$0	$0	$0	$0
26	Laundromats	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Schools, Churches, Nursery Schools	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
28		$0						$0	$0	$0	$0	$0
29	Mutli-Family, Mobile Home Parks (4 or more units)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	Retail, Commerical, Light Industrial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	Auto Repair, Car Wash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Office, Motels (without Restaurants)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	Hospitals, Convalescent Homes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
34	Hospitals, Convalescent Homes - 20%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35		$0						$0	$0	$0	$0	$0
36	Restaurants, Hotels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
37		$0						$0	$0	$0	$0	$0
38	Domestic Liquid Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	Industrial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	Total Loma Linda	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
41												
42	Total System	$11,027,370	$8,809,832	$98,184	$8,711,648	$0	$0	$2,217,538	$199,344	$74,656	$67,572	$1,875,966

9.1.10. COMPARISON OF COS TO REVENUES AT EXISTING RATES

Customer classes are assigned costs based on the demands each customer class imposes on the wastewater utility system. Table 9-12 shows a summarized version of the outcome of the FY 2027 COS analysis. The FY 2027 COS revenue requirement is $48,996,894 (line 54). This is 7.0% more than projected FY 2027 revenues if existing rates remain unchanged. COS rate increases or reductions shown for various types of customers reflect changes in demand characteristics over the past three years as compared to the previous COS analysis.

Table 9-12: FY 2027 Customer Class COS vs. Revenue at Existing Rates

Line	Customer Class	Revenue at Existing Rates	FY 2027 COS	Difference $	Difference %
1	**San Bernardino (Inside City)**				
2	Residential	$21,557,279	$21,681,638	$124,359	0.6%
3	Multi-Family (2 Units)	$1,626,781	$1,520,135	($106,645)	-6.6%
4	Multi-Family (3 Units)	$742,034	$710,602	($31,433)	-4.2%
5	Total Residential	$23,926,094	$23,912,375	($13,719)	-0.1%
6					
7	Low Strength				
8	Laundromats	$214,168	$246,372	$32,205	15.0%
9	Schools, Churches, Nursery Schools	$981,096	$916,992	($64,104)	-6.5%
10	Total Low Strength	$1,195,263	$1,163,364	($31,900)	-2.7%
11					
12	Medium Strength				
13	Mutli-Family, Mobile Home Parks (4 or more units)	$6,837,293	$7,307,375	$470,081	6.9%
14	Retail, Commerical, Light Industrial	$806,151	$4,128,851	$3,322,700	412.2%
15	Auto Repair, Car Wash	$2,006,271	$523,380	($1,482,892)	-73.9%
16	Office, Motels (without Restaurants)	$797,355	$2,605,239	$1,807,884	226.7%
17	Hospitals, Convalescent Homes	$2,966,216	$693,164	($2,273,052)	-76.6%
18	Total Medium Strength	$13,413,287	$15,258,008	$1,844,721	13.8%
19					
20	High Strength				
21	Restaurants, Hotels	$1,609,539	$1,710,140	$100,601	6.3%
22	Total High Strength	$1,609,539	$1,710,140	$100,601	6.3%
23					
24	Domestic Liquid Waste	$494,318	$688,305	$193,987	39.2%
25	Industrial	$2,633,344	$2,807,926	$174,582	6.6%
26	Total Inside City	$43,271,846	$45,540,118	$2,268,273	5.2%
27					
28	**Loma Linda (Outside City)**				
29	Residential	$829,442	$1,394,221	$564,780	68.1%
30	Multi-Family (2 Units)	$60,718	$93,999	$33,281	54.8%
31	Multi-Family (3 Units)	$27,373	$44,339	$16,966	62.0%
32	Total Residential	$917,532	$1,532,559	$615,026	67.0%
33					
34	Low Strength				
35	Laundromats	$12,681	$11,809	($872)	-6.9%
36	Schools, Churches, Nursery Schools	$27,032	$19,636	($7,397)	-27.4%
37	Total Low Strength	$39,714	$31,445	($8,269)	-20.8%
38					
39	Medium Strength				
40	Mutli-Family, Mobile Home Parks (4 or more units)	$1,004,821	$1,103,483	$98,662	9.8%
41	Retail, Commerical, Light Industrial	$148,357	$194,826	$46,469	31.3%
42	Auto Repair, Car Wash	$24,303	$28,641	$4,339	17.9%
43	Office, Motels (without Restaurants)	$51,701	$66,980	$15,278	29.6%
44	Hospitals, Convalescent Homes	$146,096	$165,345	$19,249	13.2%
45	Hospitals, Convalescent Homes - 20%	$118,608	$241,227	$122,619	103.4%
46	Total Medium Strength	$1,493,886	$1,800,501	$306,615	20.5%
47					
48	High Strength				
49	Restaurants, Hotels	$72,082	$92,271	$20,188	28.0%
50	Total High Strength	$72,082	$92,271	$20,188	28.0%
51					
52	Total Loma Linda	$2,523,214	$3,456,776	$933,561	37.0%
53					
54	Total System	$45,795,060	$48,996,894	$3,201,834	7.0%

10. Wastewater Rate Design

10.1.1. WASTEWATER RATE DESIGN – NO CHANGES

Wastewater rates must be designed to recover the customer class cost of service determined by the COS analysis. This section of the report discusses the derivation of both monthly fixed charges and $/HCF commodity rates under the existing wastewater rate structure. The Department has a wastewater rate structure that includes both fixed charges and commodity rates designed to recover the costs of the wastewater treatment system. Because the Department provides wastewater treatment services to the City of Loma Linda (Loma Linda), wastewater treatment rates and charges are paid by both Inside City and Loma Linda customers.

10.1.2. STRENGTH LOADING BASED RATES

Under the existing wastewater rate structure, Residential customers (Single Family Residential and Multi-Family Residential customers of 3 units or less) do not pay a commodity rate. Instead, cost recovery from these customers is through a monthly fixed charge. Non-residential customers pay both a monthly fixed charge and a $/HCF commodity rate. It is important to note that the rates of all customers, regardless of the cost recovery mechanism used in the rate design, reflect the determination of customer class cost of service based on the return flow factors strength loadings presented in the mass balance analysis shown in Table 9-4. Table 10-1 shows a summary of the strength loading ranges and cost recovery mechanisms for wastewater customers.

Table 10-1: FY 2027 Customer Class Groupings

Line	Strength Range	BOD mg/L Range	TSS mg/L Range	Type of Cost Recovery
1	Residential Customers - Domestic Strength	0 - 250	0 - 240	Fixed
2	Non-Residential Customers - Low Strength	0 - 200	0 - 200	Fixed + Commodity
3	Non-Residential Customers - Medium Strength	201 - 400	201 - 400	Fixed + Commodity
4	Non-Residential Customers - High Strength	401 - 1000	401 - 1000	Fixed + Commodity

10.1.3. CALCULATION OF BLENDED VARIABLE TREATMENT RATES

Inside City and Loma Linda customers pay for the recovery of variable treatment costs on a proportional basis based on their respective demands. Table 10-2 shows the calculation of the blended variable treatment rate for each customer strength range. Because the treatment rate is shared between both Inside City and Loma Linda customers, the billed units of service are combined. Key items to note on Table 10-2 include:

- Both Inside City and Loma Linda Residential customers are billed on a fixed basis (i.e., residential customers do not pay a commodity rate). Therefore, the variable treatment costs allocated to residential customers are recovered via a monthly fixed charge. The FY 2027 blended treatment rate for both Inside City and Loma Linda Residential customers is $22.53 as shown in Column K, Line 5.

- In addition to paying for variable treatment costs, Inside City Residential customers must also pay for fixed treatment costs and variable and fixed collection system costs as part of their monthly service charge. La Loma Residential customers also pay for fixed treatment costs in their monthly fixed charge. Columns I – K on Lines 7 – 22 show the derivation of the total FY 2027 $/month fixed charges for both Inside City and Loma Linda single family, 2-unit, and 3-unit Residential customers.

- Column G, Lines 10, 19, and 22, show the proposed FY 2027 $/HCF rates that will be paid by Loma Linda non-residential customers to recover variable treatment costs. Specifically, $1.66/HCF for low strength customers (Column G, Line 10), $3.09/HCF for medium strength customers (Column G, Line 19), and $8.38/HCF for high strength customers (Column G, Line 22). As discussed below, these amounts are also incorporated into the final proposed FY 2027 $/HCF commodity rates for Inside City customers.

Table 10-2: Calculation of FY 2027 Blended Treatment Rates

Line	Customer Class	A Inside City Variable Treatment Costs	B Loma Linda Variable Treatment Costs	C = A +B Total Variable Treatment Costs	D Inside City Flow (HCF)	E Loma Linda Flow (HCF)	F - D + E Total Flow (HCF)	G = C / F $/HCF	H Inside Bills After Adjustmjent for Duplex & Triplex	I LL Bills After Adjustmjent for Duplex & Triplex	J - H + I Inside + LL Total Bills After Adjustmjent for Duplex & Triplex	K = C / J $/Bill/Mo
1	**Residential**											
2	Residential	$8,803,284	$1,123,243	$9,926,526	6,532,163	833,462	7,365,625	N/A	407,510	28,222	435,732	$22.79
3	Multi-Family (2 Units)	$581,186	$74,156	$655,341	313,635	40,018	353,653	N/A	30,752	2,067	32,819	$19.97
4	Multi-Family (3 Units)	$277,418	$35,397	$312,815	126,676	16,163	142,839	N/A	14,028	931	14,959	$20.92
5	**All Residential**	**$9,661,888**	**$1,232,795**	**$10,894,683**	**6,972,474**	**889,643**	**7,862,117**	N/A	**452,290**	**31,220**	**483,510**	**$22.53**
6												
7	**Non-Residential Low Strength**											
8	Laundromats	$145,151	$11,679	$156,830	71,648	5,765	77,413	$2.03				
9	Schools, Churches, Nursery Schools	$493,830	$19,276	$513,106	313,983	12,256	326,239	$1.58				
10	**All Low Strength**	**$638,980**	**$30,955**	**$669,936**	**385,631**	**18,021**	**403,652**	**$1.66**				
11												
12	**Non-Residential Medium Strength**											
13	MF, Mobile Home Parks (4 or more units)	$5,039,065	$1,080,642	$6,119,707	1,759,557	377,342	2,136,899	$2.87				
14	Retail, Commerical, Light Industrial	$2,725,785	$190,110	$2,915,895	792,358	55,263	847,621	$3.45				
15	Auto Repair, Car Wash	$334,007	$28,022	$362,029	108,515	9,104	117,619	$3.08				
16	Office, Motels (without Restaurants)	$1,772,062	$63,363	$1,835,425	520,129	18,598	538,727	$3.41				
17	Hospitals, Convalescent Homes	$492,684	$163,626	$656,310	166,811	55,400	222,211	$2.96				
18	Hospitals, Convalescent Homes - 20%		$240,641	$240,641		72,899	72,899	$3.31				
19	**All Medium Strength**	**$10,363,602**	**$1,766,404**	**$12,130,006**	**3,347,370**	**588,606**	**3,935,976**	**$3.09**				
20												
21	**Non-Residential High Stength**											
22	Restaurants, Hotels	**$1,442,334**	**$90,562**	**$1,532,896**	**172,165**	**10,810**	**182,975**	**$8.38**				
23												
24	**Domestic Liquid Waste**	**$675,605**		**$675,605**	**4,953,090**		**4,953,090**	**$0.1400**				
25					Gallons			$ per Gallon				
26	**Industrial**											
27	Discharge Flow	$ per MG										
28	Biochemical Oxygen Demand (BOD)	$ per 1,000 lbs.			**Calculated Separately**							
29	Suspended Solids Charge (TSS)	$ per 1,000 lbs.										
30	**Industrial**	**$2,439,715**										

Inside City Residential Monthly Service Charge	
Treatment Variable (From Line 5, this Table)	$22.53
Collection Variable (See Table 10-3)	$8.46
Treatment & Collection Fixed (FromTable 10-4)	$23.06
Total Single Family Residential	$54.05
Duplex	$108.10
Triplex	$162.16

Total Loma Linda Residential Monthly Service Charge	
Treatment Variable (From Line 5, this Table)	$22.53
Treatment Fixed (From Table 10-5)	$8.53
Total Single Family	$31.06
Duplex	$62.12
Triplex	$93.19

10.1.4. CALCULATION OF INSIDE CITY VARIABLE COLLECTION SYSTEM RATES

In addition to variable treatment costs, Inside City customers must also pay for variable collection system costs as part of their total $/HCF rate. Table 10-3 shows the calculation of the $/HCF variable collection system component for Inside City non-residential customers (Column C). Column E shows the calculated Inside City Residential customer monthly fixed charge of $8.46 used to recover variable collection system costs.

Table 10-3: Calculation of FY 2027 Variable Collection Rates

Customer Class	A Collection Variable	B Billed Units	C = A/B $/HCF	D Adjustmjent for Duplex & Triplex	E = A / D $/Bill/Mo
Residential					
Residential	$3,482,831	6,532,163	$0.54	407,510	$8.55
Multi-Family (2 Units)	$229,934	313,635	$0.74	30,752	$7.48
Multi-Family (3 Units)	$109,755	126,676	$0.87	14,028	$7.83
All Residential	**$3,822,519**	**6,972,474**	**$0.55**	**452,290**	**$8.46**
Non-Residential - Low Strength					
Laundromats	$95,504	71,648	$1.34		
Schools, Churches, Nursery Schools	$355,746	313,983	$1.14		
All Low Strength	**$451,250**	**385,631**	**$1.18**		
Non-Residential - Medium Strength					
MF, Mobile Home Parks (4 or more units)	$1,993,598	1,759,557	$1.14		
Hospitals, Convalescent Homes	$1,003,368	792,358	$1.27		
Retail, Commercial, Light Industrial	$122,949	108,515	$1.14		
Auto Repair, Car Wash	$658,643	520,129	$1.27		
Office, Motels (without Restaurants)	$188,999	166,811	$1.14		
All Medium Strength	**$3,967,557**	**3,347,370**	**$1.19**		
Non-Residential - High Strength					
Restaurants, Hotels	**$195,065**	**172,165**	**$1.14**		
Domestic Liquid Waste	**$8,827**	**4,953,090**	**$0.01**		
Industrial	**$364,614**		**Calculated Separately**		

10.1.5. CALCULATION OF INSIDE CITY MONTHLY SERVICE CHARGES

Fixed charges do not vary based on the volume of customer billed discharges. Therefore, all Inside City non-residential customers pay the same monthly service charge. Table 10-4 shows this calculation for FY 2027. This monthly fixed charge is $23.06 is for all Inside City non-residential customers.

Table 10-4: Calculation of FY 2027 Inside City Monthly Service Charges

Customer Class	Treatment Fixed COS	Collection Fixed COS	Total Inside City Fixed COS	Bills	$/Acct/Month
Residential - Domestic Strength					
Residential	$7,585,075	$1,810,448	$9,395,523	407,510	$23.06
Multi-Family (2 Units)	$572,394	$136,622	$709,016	30,752	$23.06
Multi-Family (3 Units)	$261,106	$62,322	$323,429	14,028	$23.06
All Residential	**$8,418,575**	**$2,009,393**	**$10,427,968**	**452,290**	**$23.06**
Non-Residential - Low Strength					
Laundromats	$4,616	$1,102	$5,718	248	$23.06
Schools, Churches, Nursery Schools	$54,425	$12,990	$67,416	2,924	$23.06
All Low Strength	**$59,041**	**$14,092**	**$73,133**	**3,172**	**$23.06**
Non-Residential - Medium Strength					
Multi-Family, Mobile Home Parks (4 or more units)	$221,777	$52,935	$274,711	11,915	$23.06
Hospitals, Convalescent Homes	$9,269	$2,212	$399,698	498	$23.06
Retail, Commercial, Light Industrial	$322,679	$77,019	$66,424	17,336	$23.06
Auto Repair, Car Wash	$53,625	$12,799	$174,533	2,881	$23.06
Office, Motels (without Restaurants)	$140,902	$33,631	$11,482	7,570	$23.06
All Medium Strength	**$748,252**	**$178,597**	**$926,849**	**40,200**	**$23.06**
Non-Residential - High Strength					
Restaurants, Hotels	**$58,725**	**$14,017**	**$72,741**	**3,155**	**$23.06**
Domestic Liquid Waste	**$3,127**	**$746**	**$72,741**	**168**	**$23.06**
Industrial	**$2,904**	**$693**	**$3,873**	**156**	**$23.06**
Total Inside City Fixed COS	**$9,290,623**	**$2,217,538**	**$11,508,162**	**499,141**	

10.1.6. CALCULATION OF LOMA LINDA MONTHLY SERVICE CHARGES

As noted previously, fixed charges do not vary based on the volume of customer billed discharges. Therefore, all Loma Linda non-residential customers pay the same monthly service charge. Table 10-5 shows this calculation for FY 2027. All Loma Linda non-residential customers will pay a monthly fixed charge of $8.53 which is based on their allocation of treatment fixed costs. This amount excludes monthly billing and customer service costs of $1.08 per month because Loma Linda customers do not receive the benefit of these services.

Table 10-5: Calculation of FY 2027 Loma Linda Monthly Service Charges

Customer Class	A Treatment Fixed	B Adjustment for Customer Service and Billing	C = A + B Total Fixed	D LL Bills After Adjustmjent for Duplex & Triplex	E = C / D $/Acct /Month
Residential					
Residential	$270,979	($30,410)	$240,569	28,222	$8.53
Multi-Family (2 Units)	$19,843	($2,227)	$17,616	2,067	$8.53
Multi-Family (3 Units)	$8,942	($1,003)	$7,938	931	$8.53
All Residential	**$299,764**	**($33,640)**	**$266,124**	**31,220**	**$8.53**
Low Strength					
Laundromats	$130	($15)	$115	14	$8.53
Schools, Churches, Nursery Schools	$360	($40)	$319	37	$8.53
All Low Strength	**$490**	**($55)**	**$435**	**51**	**$8.53**
Medium Strength					
Mutli-Family, Mobile Home Parks (4 or more units)	$22,841	($2,563)	$20,278	2,379	$8.53
Retail, Commerical, Light Industrial	$4,716	($529)	$4,187	491	$8.53
Auto Repair, Car Wash	$619	($70)	$550	65	$8.53
Office, Motels (without Restaurants)	$3,617	($406)	$3,211	377	$8.53
Hospitals, Convalescent Homes	$1,719	($193)	$1,526	179	$8.53
Hospitals, Convalescent Homes - 20%	$586	($66)	$520	61	$8.53
All Medium Strength	**$34,097**	**($3,827)**	**$30,271**	**3,551**	**$8.53**
High Strength					
Restaurants, Hotels	**$1,709**	**($192)**	**$1,517**	**178**	**$8.53**

10.1.7. CALCULATION OF INDUSTRIAL VARIABLE RATES

The Department provides service to approximately ten Industrial customers. The wastewater flow volumes discharged by these customers is monitored via separate discharge meters. Rates for Industrial customers are based on the same unit cost of service used for other customer classes and are charged on the following basis: $/million gallons for flow, $/thousand pound for BOD and TSS. Table 10-6 shows the calculation of FY 2027 Industrial customer rates.

Table 10-6: Calculation of FY 2027 Industrial Rates

Industrial COS	Total COS	I/I Flow	Flow	BOD	TSS
Treatment					
Industrial	$2,439,715	$9,944	$128,357	$1,869,623	$431,791
Units of Service		273,538	273,538	1,989,252	463,167
Unit COS		$0.0364	$0.4692	$0.9399	$0.9323
Collection					
Industrial	$364,614	$4,064	$360,551	$0	$0
Units of Service		273,538	204,620,378	205	1,989,252
Unit COS		$0.0149	$0.0018	$0.0000	$0.0000
Combined					
Industrial		$2,804,328.90	$14,007.80	$488,907.27	$1,869,623.10
Units of Service			273,538	273,538	1,989,252
Unit COS			$0.0512	$1.7873	$0.9399

Industrial Rate Design	Total	Flow (HCF)	Flow (Gallons)	Flow (MG)	BOD (Pounds)	BOD (1,000s of pounds)	TSS (Pounds)	TSS (1,000s of pounds)
COS	$2,804,329	$502,915	$502,915	$502,915	$1,869,623	$1,869,623	$431,791	$431,791
Units of Service	-	273,538	204,620,378	205	1,989,252	1,989	463,167	463
Unit Cost of Service		$1.84	$0.00246	$2,457.80	$0.94	$939.87	$0.94	$932.26

Rate Summary	$ Units	Existing Rates	Calculated Rates
Flow	$ per MG	$1,986.72	$2,457.80
BOD	$ per 1,000 lbs.	$906.48	$939.87
TSS	$ per 1,000 lbs.	$906.78	$932.26

10.1.8. PROPOSED COMMODITY RATES FOR FY 2027 - 2031

After determining COS rates for FY 2027, the rates for the period FY 2028 - 2031 are calculated based on the overall financial planning increase. These increases are 7% for FY 2028, 7% for FY 2029, and 6% in FY 2030 and 5% in FY 2030. The resulting proposed wastewater commodity rates for the entire FY 2027 - FY 2031 planning horizon are shown in Table 10-7. Note that the Inside City commodity rates shown in Table 10-7 are the sum of $/HCF variable treatment costs as shown in Table 10-2 and $/HCF variable collection rates shown in Table 10-3.

Table 10-7: Proposed FY 2027 - FY 2031 Wastewater Commodity Rates

Inside City	Billing Unit	Current	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Residential							
Residential	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Multi-Family (2 Units)	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Multi-Family (3 Units)	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Non-Residential Low Strength							
Laundromats	$/HCF	$3.01	$2.84	$3.04	$3.22	$3.38	$3.55
Schools, Churches, Nursery Schools	$/HCF	$3.01	$2.84	$3.04	$3.22	$3.38	$3.55
Non-Residential: Medium Strength							
Multi-Family, Mobile Home Parks (4 or more units)	$/HCF	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
Hospitals, Convalescent Homes	$/HCF	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
Retail, Commercial, Light Industrial	$/HCF	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
Auto Repair, Car Wash	$/HCF	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
Office, Motels (without Restaurants)	$/HCF	$3.79	$4.28	$4.58	$4.85	$5.10	$5.35
Non-Residential: High Strength							
Restaurants, Hotels	$/HCF	$8.98	$9.52	$10.19	$10.80	$11.34	$11.90
Domestic Liquid Waste	$/Gallons	$0.0998	$0.1500	$0.1605	$0.1701	$0.1786	$0.1876
Industrial							
Flow	$ per MG	$1,986.72	$2,457.80	$2,629.85	$2,787.64	$2,927.02	$3,073.37
Biochemical Oxygen Demand	$ per 1,000 lbs.	$906.48	$939.87	$1,005.66	$1,066.00	$1,119.30	$1,175.27
Suspended Solids	$ per 1,000 lbs.	$906.78	$932.26	$997.52	$1,057.37	$1,110.24	$1,165.75
Loma Linda	**Billing Unit**	**Current**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**
Residential							
Residential	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Multi-Family (2 Units)	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Multi-Family (3 Units)	$/HCF	N/A	N/A	N/A	N/A	N/A	N/A
Non-Residential Low Strength							
Laundromats	$/HCF	$2.18	$1.66	$1.78	$1.90	$2.01	$2.12
Schools, Churches, Nursery Schools	$/HCF	$2.18	$1.66	$1.78	$1.90	$2.01	$2.12
Non-Residential: Medium Strength							
Multi-Family, Mobile Home Parks (4 or more units)	$/HCF	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
Hospitals, Convalescent Homes	$/HCF	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
Retail, Commercial, Light Industrial	$/HCF	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
Auto Repair, Car Wash	$/HCF	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
Office, Motels (without Restaurants)	$/HCF	$2.61	$3.09	$3.31	$3.54	$3.75	$3.94
Non-Residential: High Strength	$/HCF	$6.53	$8.38	$8.97	$9.59	$10.17	$10.68

10.1.9. PROPOSED MONTHLY SERVICE CHARGES FOR FY 2027 - 2031

Proposed wastewater monthly wastewater service charges for the entire FY 2027 - FY 2031 planning horizon are shown in Table 10-8.

Table 10-8: Proposed FY 2027 - FY 2031 Wastewater Monthly Service Charges

Inside City	Billing Unit	Current	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Residential							
Residential	$/Account/Month	$52.90	$54.05	$57.84	$61.31	$64.37	$67.59
Multi-Family (2 Units)	$/Account/Month	$105.80	$108.11	$115.67	$122.61	$128.74	$135.18
Multi-Family (3 Units)	$/Account/Month	$158.69	$162.16	$173.51	$183.92	$193.12	$202.77
All Non-Residential	$/Account/Month	$23.16	$23.06	$24.67	$26.15	$27.46	$28.84

Loma Linda	Billing Unit	Current	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Residential							
Residential	$/Account/Month	$29.39	$31.06	$33.24	$35.56	$37.70	$39.58
Multi-Family (2 Units)	$/Account/Month	$58.79	$62.13	$66.47	$71.13	$75.39	$79.16
Multi-Family (3 Units)	$/Account/Month	$88.18	$93.19	$99.71	$106.69	$113.09	$118.75
All Non-Residential	$/Account/Month	$8.39	$8.53	$9.13	$9.77	$10.35	$10.87

Robert D. Niehaus, Inc.

Olivehurst Public Utility District

Proposal for

Water and Sewer Rates for Prop 218 Study

May 22, 2026

Submitted By:

Robert D. Niehaus, Inc.
140 East Carrillo Street
Santa Barbara, CA 93101

Authorized Representative: Jack Lyon
Title: Director of Business Development
Email: Jack@rdniehaus.com
Phone: 805.618.1356

Submitted To:

Attn: Swarnjit Boyal
Public Works Engineer
1970 9th Avenue
Olivehurst, CA 95961

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May 22, 2026

Swarnjit Boyal
Public Works Engineer
Olivehurst Public Utility District
1970 9th Avenue
Olivehurst, CA 95961

Jack Lyon, Director of Business Development
(805) 618-1356 | jack@rdniehaus.com
Robert D. Niehaus, Inc.
140 E Carrillo Street
Santa Barbara, CA 93101

Subject: Proposal for Water and Sewer Rates for Prop 218 Study

Dear Mr. Boyal and the Olivehurst Public Utility District,

Robert D. Niehaus, Inc. (RDN) is pleased to submit this proposal to the Olivehurst Public Utility District (District) to conduct a Water and Sewer Rates for Prop 218 Study (Study). We understand the District is seeking an experienced team with a strong track record developing cost of service studies and rate recommendations in California that comply with Proposition 218. RDN is highly motivated and qualified to assist the District in this effort.

RDN is an employee-owned economic and financial consultancy specializing in rate- and fee-setting services for California utilities. Founded in 1983, RDN has 43 years of experience and has completed more than 1,000 successful projects. Through this experience, our team has developed a deep understanding of the economic, financial, political, and regulatory challenges involved in designing and adopting utility rates in California.

Our team is particularly adept and experienced working with smaller utilities similar to the District. RDN has worked with over 40 utilities across California with fewer than 10,000 connections. This includes over 20 utilities in northern California, where we have taken the lead in data collection synthesis to alleviate the burden from utility staff.

Dr. Robert Niehaus will serve as Project Director and brings more than 45 years of experience. He will provide overall accountability for the Study and ensure the project is completed on time, withing budget, and to the District's satisfaction. Anthony Elowsky will serve as Project Manager with 10 years of consulting experience and more than 50 rate studies managed. Ichiko Kido will serve as QA/QC Consultant and brings more than 20 years of experience in utility financial analysis. In addition, RDN will draw upon a bench of 20 highly skilled California-based consultants to support analyses and deliverable preparation as needed.

Please coordinate with Jack Lyon if you would like to discuss our proposal, which is valid for a 90-day period. Jack is authorized to negotiate and execute contracts. We have reviewed the District's RFP and Professional Services Agreement and confirm that the terms are acceptable without exception. RDN meets or exceeds District insurance requirements. We appreciate your consideration and would be honored to assist the District on this important project.

Sincerely,

Robert D. Niehaus, Ph.D.
Managing Director, Principal Economist

Jack Lyon
Director of Business Development

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CONSULTANT IDENTIFICATION AND QUALIFICATIONS

IDENTIFICATION

Requested Company Information

Official Name: Robert D. Niehaus, Inc.
Corporate Address: 140 E Carrillo Street, Santa Barbara, CA 93101
Primary RFP POC: Jack Lyon, Director of Business Development, jack@rdniehaus.com, 805.618.1356
Proposed Project Manager: Anthony Elowsky, Project Manager, anthony@rdniehaus.com, 805-972-9715
Corporate Telephone: 805.962.0611
Corporate Fax: 805.962.0097

Company Overview

RDN is an employee-owned economic and financial consulting firm with 24 consultants, headquartered in Santa Barbara, delivering solutions to California utilities and Federal agencies since 1983. Our utility rate practice group specializes in financial planning, cost-of-service analysis, and rate and connection fee design for California water and wastewater utilities.

RDN BY THE NUMBERS

- $8M Annual Revenue | 24 Consultants
- 1,000+ Projects Accomplished Worldwide
- 100+ Years of Project Team Experience
- 50 States Served | 16 Countries Served
- 43 Years Consulting for Utility Systems

Project Team Experience & Qualifications

Our proposed project team has decades of experience conducting California rate and fee studies. Dr. Robert Niehaus, proposed Project Director, has successfully assisted over 1,000 government projects and over 100 water and wastewater agencies in California with financial planning and rate-setting consulting for over 45 years. Anthony Elowsky, proposed Project Manager, has managed over 50 California rate and fee studies over 10 years of consulting. Ichiko Kido, proposed QA/QC Consultant, has assisted over 100 agencies with more than 20 years of industry experience.

Our team has a deep understanding of the economic, financial, political, and regulatory challenges for adopting rate and fee studies in California under Proposition 218. We are adept at facilitating policy discussions to understand project goals and objectives and presenting at public meetings with elected officials and customers throughout the rate-setting process. This includes rate workshops, customer outreach, and Proposition 218 hearings. We also excel at distilling complex technical concepts and data into easy-to-understand presentations, reports, and models. We think big picture while paying close attention to details. Finally, we are an outcome-based team: your utility rate success is our success.

RELATED EXPERIENCE

Presented below is a partial list of water, recycled water, and wastewater financial planning, cost of service rate studies, or capacity fee studies that our proposed project manager, Anthony Elowsky, recently served in the role of Project Manager or Lead Analyst for RDN. Various rate structures include uniform, increasing block (tiered), water budget, and drought rates.

#	Agency	Project
1	**City of Alhambra**	Water Rate Study
2	**City of California City**	Water and Wastewater Rate Study; Capacity Fee Study
3	**City of Corona**	Water Budget, Recycled Water, Wastewater, Electric Rate Study
4	**City of Greenfield**	Water and Wastewater Rate Study
5	**City of Huntington Beach**	Wastewater Rate Study
6	**City of Loyalton**	Wastewater Rate Study
7	**City of Lynwood**	Water and Wastewater Rate Study
8	**City of San Fernando**	Water and Wastewater Rate Study
9	**City of Santa Ana**	Water, Recycled, and Wastewater Rate Study
10	**Costa Mesa Sanitary District**	Wastewater Rate Study
11	**Greenfield CWD**	Water Rate Study
12	**Hi-Desert MWC**	Water Rate Study
13	**Hilton Creek CSD**	Wastewater Rate Study
14	**Juniper Riviera CWD**	Water Rate Study
15	**Jurupa CSD**	Water and Wastewater Rate Study
16	**Lake Arrowhead CSD**	Water and Wastewater Rate Study
17	**Lone Pine CSD**	Wastewater Rate Study
18	**Lost Hills Utility District**	Wastewater Rate Study
19	**Mammoth Community Water District**	Water and Wastewater Rate Study
20	**Meiners Oaks Water District**	Water Rate Study
21	**Mid Peninsula Water District**	Water Capacity Fee Study
22	**Montecito Sanitary District**	Wastewater Rate and Fee Study
23	**Moulton Niguel Water District**	Water, Wastewater, Recycled Water Cost of Service Peer Review
24	**Napa County (LBRID/NBRID)**	Water and Wastewater Rate Studies
25	**Orosi Public Utility District**	Wastewater Rate Study
26	**Palmdale Water District**	Water Budget Rate Study
27	**Patterson Tract CSD**	Water Rate Study
28	**Quartz Hill Water District**	Water Rate Study
29	**Rand CWD**	Water Rate Study
30	**Redway CSD**	Water and Wastewater Rate Study
31	**Rosamond CSD**	Water and Wastewater Rate Study
32	**Santa Clarita Valley Water Agency**	Ratepayer's Advocate for Water, Recycled Water, Wholesale Rate Study
33	**Serrano Water District**	Water Budget Rate Feasibility Study
34	**Sheep Creek WC**	Water Rate Study
35	**South Coast Water District**	Water, Recycled, and Wastewater Rate Study; Water Budget Feasibility Study
36	**Thunderbird CWD**	Water Rate Study
37	**Ventura River Water District**	Water Budget Rate Study
38	**Victor Valley Wastewater Reclamation Authority**	Wastewater Financial Plan
39	**West Valley CWD**	Water Rate Study
40	**West Valley Water District**	Development Impact Fee Study

PROJECT UNDERSTANDING AND APPROACH

Task Summary

1) **Project Management:** Guide project administration. We will request District data prior to project kickoff to support an informed kickoff meeting. At the kickoff meeting, we will solidify the project timeline and priorities. Bi-weekly progress meetings will be held as appropriate.

2) **Financial Plan:** Review District data for the Olivehurst and Plumas Lake Systems to develop 10-year financial plans, carefully considering current and projected water demands and supply availability, future wastewater connections, operations and maintenance expense, capital needs, debt, and reserves.

3) **Cost of Service:** Follow the American Water Works Association (AWWA) Manual M1, Water Environment Federation M27, and Proposition 218 and 26 to allocate costs equitably to District customers (and carefully consider recent California case law: Dreher v. District of Los Angeles Department of Water and Power; Patz v. District of San Diego; and Coziahr v. Otay Water District for tiered rates).

4) **Rate Design:** Offer rate options for each utility for District leadership to evaluate, highlighting the pros and cons of each option relative to District policy objectives and risk while ensuring sufficient revenues.

5) **Reports & Models:** Draft comprehensive, detailed reports clearly demonstrating the nexus between District costs and proposed rates and fees, serving as the District's Administrative Record. Easy to use Excel model built for annual financial planning and executive review.

6) **Public Meetings:** Attend two remote meetings to explain the study assumptions, methodologies, and results.

Task 1. Project Management

Task 1.1. Data Collection & Review

Our data request will include audits, budgets, general plans, capital improvement plans, customer billing records, debt service schedule, reserve policies, among other information. For data validation and quality assurance, RDN may request additional data throughout the study to reconcile any inconsistencies.

Task 1.2. Kickoff Meeting

We propose a kickoff meeting to discuss project objectives, approach, work plan, schedule, and priorities. During this meeting, District staff will provide insights into the key policy objectives that are most important to the District. RDN and District staff will also review the available data and identify any additional data requirements.

Task 1.3. Project Management

RDN incorporates best practices from the Project Management Institute's Project Management Body of Knowledge to establish processes that guide management procedures. We take pride in high-quality work that is on schedule, within budget, and error-free. Our project manager, Anthony Elowsky, will prepare a Project Management Plan (PMP) to define project goals, scope, deliverables, budget, schedule, and administrative procedures.

Task 1.4. Bi-Weekly Progress Meetings

Our project team will meet with District staff biweekly, or as often as necessary, to ensure full Study transparency, timeliness, and success.

Task 2. Financial Plan

Task 2.1. Demand Projections/Revenue Analysis

RDN will conduct demand and growth projections to ensure the District's revenue forecast and cash flow analysis are accurate for each utility. We will also identify any changes to other revenues such as miscellaneous charges, property taxes, and investment income and ensure that other revenues are allocated to the appropriate utility.

Task 2.2. Operation and Maintenance Expenses

Using the District's budgetary documents, we will project operating and maintenance (O&M) expenses and develop reasonable inflationary factors for relevant itemized expenses using reliable published sources or the District's historical data. We also incorporate any known changes to personnel, level of service, or projected growth. We will pay particular attention to possible changes in future wholesale water source costs. Each expense item will be categorized as either fixed or variable and direct or indirect to ensure that costs are allocated to the correct rate structure components when designing rates.

Task 2.3. Capital Improvement Funding

RDN will review the District's capital improvement plans and explore financing options based on the timing of proposed revenue adjustments and scheduled repairs and replacements. We will incorporate long-term replacement needs detailed in the District's Master Planning documents as well as review past and future depreciation. Funding sources to achieve capital improvement goals may include cash reserves, grant funding, debt proceeds, or PAYGO (pay as you go), each with different rate impacts.

Task 2.4. Debt Service Funding

RDN will ensure that the District's financial plan includes consideration of all current and future planned debt issuances. This analysis will allow the District to be confident that future revenue levels will comply with existing bond covenants. If capital funding requires additional debt, RDN will assist the District to plan debt issuance schedules to reduce overall impacts on customers.

Task 2.5. Reserve Funding

We will review the District's reserve policies and develop an implementation plan that maintains recommended balances consistent with the District's financial goals, risk tolerance, and capital improvement projects.

Task 2.6. Revenue Requirements

The cash flow analysis will project revenues, expenses, debt obligations, and future funding needs to determine necessary revenue adjustments for the study period. The total cost will be offset by other sources of revenue such as property taxes, investment earnings, rental income, and other water service charges. RDN will assess if revenue adjustments are needed to reconcile cumulative revenue deficiency or surplus by the end of the study period. Revenue adjustments will also meet debt covenants by maintaining the required debt service coverage ratio. The objective is to minimize customer impacts while achieving a healthy cash flow mechanism for the next five years.

Task 3. Cost of Service Analysis

Task 3.1. Review of Customer Classes

RDN will evaluate the District's customer classifications and recommend any necessary adjustments. Properly assigning costs to customer classes based on their specific service requirements is essential for designing rates that comply with both Proposition 218 and Proposition 26. We will explore various cost allocation methods to determine the approach that best aligns with the District's objectives, ensuring compliance with regulatory requirements.

Task 3.2. Cost Functionalization

A utility system is composed of various facilities that serve a particular function. With input from District staff, each expense identified in the financial plan will be carefully allocated to the industry standardized functions of each system in our models. These functions can be customized based on the District's organizational structures and account for fixed and variable costs.

Task 3.3. Cost Allocation to Cost Causative Components

RDN will employ cost allocation methods from the AWWA M1. The water utility cost causative components include delivery capacity components such as base and capacity delivery. For wastewater utilities, cost causative components include flow, strength (BOD and TSS), and customer-related services. Both utilities also have components such as meter and customer billing services.

Task 3.4. Cost Allocation to Customer Classes

As a final step of the cost of service analysis, the costs of each component are allocated back to each customer class commensurate with their service requirements. This analysis ensures the District adheres to the principle of cost proportionality, which is particularly relevant under Proposition 218.

Task 4. Rate Design

Task 4.1. Evaluate the Current Rate Structures & Identify Rate Alternatives

We will perform a comprehensive review of the District's current rate structures to assess their tradeoffs. This will include an evaluation of links between cost parameters with a particular focus on compliance with Proposition 218. Our review will also identify whether the existing rates optimize fixed and variable rate recovery to enhance stability while ensuring affordability. Based on the financial planning and cost of service analyses, we will evaluate rate adjustment alternatives designed to recover the revenue requirements identified in the financial plan. We will provide up to three draft rate options that adequately address the District's financial needs, allowing the District to select the option that best aligns with its objectives.

Task 4.2. Develop Recommended Rates

We will recommend rate alternatives that best align with the District's objectives and are supported by the cost-of-service analysis.

Recommendations

We will ensure that all recommended rates comply with Proposition 218 and will work with District legal counsel as appropriate. To align with recent California case law, including *Dreher v. District of Los Angeles Department of Water and Power (2025), Coziahr v. Otay Water District* (2024), and *Patz v. District of San Diego* (2025), RDN may recommend that customer classes have the same tiers and tier widths, unless there is a cost-based reason to justify different rates.

Task 5. Reports & Models

Task 5.1. Rate Models

All models will be developed in Microsoft Excel format designed to allow District staff to conduct sensitivity scenarios by testing various assumptions through an interactive dashboard. Factors that may easily be adjusted in the rate models include staff levels and salaries, operating expense levels, CIP spending, capital equipment funding, impacts of rate increases, and pass-through charges. The models will be introduced to District staff early in the study process. We will add worksheets gradually as we perform key analyses through the study and ask for the District's review. By the time the study is complete, District staff will be fully familiarized with the models and

be able to use the models to make data-driven decisions. Any changes to the underlying models will appear instantly in a dashboard for quick executive evaluation.

Task 5.2. Rate Study Reports

The preliminary rate study report will contain an overview, study objectives, assumptions, regulatory requirements, and methodologies. The report will discuss short- and long-term financial planning, capital planning, cost of services, rate-setting analysis, bill impacts, and comparison surveys. Key outputs of data, analysis, and rationale will be visualized in the reports. The tables and charts will be an effective tool to communicate conclusions to the Board, customers, and other stakeholders.

We will incorporate District feedback into the final report and clearly demonstrate the nexus between costs and recommended rates in simple terms to fulfill Proposition 218 reporting requirements.

Task 5.3. Rate Comparison Survey

We will prepare a rate comparison survey of comparable local agencies to benchmark the District's current and proposed rates. Comparisons will be made for users at high, average, and low consumption levels. We will request District input on cities/agencies to include in the survey and summarize the results for public outreach, presentations, and the report.

Task 6. Public Meetings – Proposition 218 Support

Task 6.1. Proposition 218 Notice

We will work with District staff and legal counsel to prepare a Proposition 218 Notice within the 45-day noticing period. The notice will outline the proposed rate changes, the reasons for the changes, and the right for customers to challenge the rates.

Task 6.2. Two Public Meetings

RDN will attend one remote public meeting with the District's Board of Directors to present the study recommendations and obtain their input. Generally, meetings with the Board occur during the financial planning and rate design tasks to ensure that proposals are aligned with District goals. The Second remote meeting will be held for the Proposition 218 Hearing.

Schedule

RDN will complete the scope of services within the timeframe scheduled below or as agreed upon with the City. The schedule assumes timely response to data requests and that RDN will be able to schedule necessary meetings. We have an exceptional track record of delivering rate and fee studies on schedule and invite you to connect with our references to validate our schedule control.

	Month						
TASKS	**Jun-26**	**Jul-26**	**Aug-26**	**Sep-26**	**Oct-26**	**Nov-26**	**Dec-26**
1. Project Management							
2. Financial Plan							
3. Cost of Service Analysis							
4. Rate Design							
5. Reports and Models							
6. Public Meetings - Proposition 218 Support							

- *Remote Meetings*
- *Board Meetings*
- *Proposition 218 Notice*

RELATED PROJECT/CIENT INFORMATION

With over 90 percent of our work resulting from repeat business, RDN prides itself on continuing relationships that we have developed over four decades of consulting. We invite you to contact our references to verify our quality of service on similar engagements.

City of Greenfield

Water/Wastewater Rate Study (May 2022 – July 2023)
Initial/Final Fee: $21,000/$21,000
Sewer Rate and Fee Study (June 2025 – December 2025)
Initial/Final Fee: $29,730/$29,730

Paul Wood
City Manager
831-674-5591
pwood@ci.greenfield.ca.us
Greenfield, CA 93927

The City of Greenfield retained RDN to conduct water and wastewater rate studies 2022. RDN supported the Proposition 218 hearing in June 2023 with successful rate adoption. The City again retained RDN to evaluate a series of potential private and public debt options in addition to or instead of grant funding. The rate structures for both water and sewer included a fixed and variable component based on the actual cost to provide Service. In October 2025, the City Council moved to adopt the rate study recommendations and move forward with the Proposition 218 Hearing in December 2025. Each study was on schedule and within budget.

Mammoth Community Water District

Water, Wastewater, and Recycled Water Connection Fee Study (August 2024 – January 2025)
Initial/Final Fee: $24,480/$24,480
Water, Wastewater, and Recycled Water Rate Study (March 2025 – March 2026)
Initial/Final Fee: $70,880/$70,880

Jeffrey Beatty
Finance Manager
760-934-2596
jbeatty@mcwd.dst.ca.us
Mammoth Lakes, CA 93546

Mammoth Community Water District retained RDN to develop water, recycled water (new), and wastewater connection fees and rates. We reviewed the District's current methodology and fees and determined that the District should introduce a comprehensive change to their rate and fee structures to improve customer equity by making the basis directly related to the total plumbing fixtures allowed in each permit, rather than hypothetical meter capacities. Additionally, source of supply costs were directly related to the tier price for each unit of water used. The Studies were on schedule and under budget with successful fee implementation in January 2025 and rate implementation in March 2026.

City of Corona

Tiered Water Budget, Reclaimed Water, Sewer, Electric Rates (April 2024 – January 2025)
Initial/Final Fee: $143,360/$148,360

Tom Moody
Director of Utilities
951-736-2477
Tom.Moody@CoronaCA.gov
Corona, CA 92882

The City of Corona retained RDN to develop tiered water budget, reclaimed water, sewer, and electric utility rates. RDN assisted the City with detailed financial plans for each utility. We recommended the District issue debt to fund long-term capital budgets to increase equity between current and future customers. The study was on schedule and within budget. New rates were implemented on January 1, 2025.

INDIVIDUAL STAFF EXPERIENCE AND PROJECT ORGANIZATION

We propose a project team of four as presented below. Our deep bench of 20 California consultants will be leveraged as needed, supporting any additional or contingency services. Requested team qualifications and information are highlighted below with approximate percentage of the total time for each team member (100% total). Full resumes are appended to this proposal. We propose no subconsultants.




Robert Niehaus	**Anthony Elowsky**	**Ichiko Kido**	**Zachary Van Dinther**
Project Director (8%)	Project Manager (37%)	QA/QC Consultant (8%)	Consultant (47%)

Robert Niehaus, Project Director

Key Tasks: Oversee project methodology, assumptions, deliverables; responsible for overall project staffing, budget, and schedule.

Summary of Qualifications: Robert has more than 45 years of consulting experience and has served as Project Director for more than 100 cost of service rate and capacity fee studies in California, and more than 1,000 economic and financial projects across all 50 states and 16 countries. He holds a Ph.D. in Economics from the University of Maryland.

Anthony Elowsky, Project Manager

Key Tasks: Serve as primary contact for District staff; manage project schedule and budget; lead data collection, project tasks, and analysis; review project deliverables; and ensure timely, on-budget, successful execution of the scope of work.

Summary of Qualifications: Anthony has 10 years of consulting experience, eight with RDN, managing over 50 California water, recycled water, and wastewater rate and fee studies. His expertise lies in water and wastewater financial planning, cost of service analysis, and rate and fee design. Anthony is well-versed in Proposition 218 requirements. He has also conducted comparative water rate analyses and compiled and analyzed data on water rates and financial information for more than 100 purveyors throughout California. He promotes best practices in the AWWA's *Manual M1 Principles of Water Rates, Fees and Charges* and the *WEF Manual of Practice Number 27*. Anthony received his M.A. from California State University, Fullerton.

Ichiko Kido, QA/QC Consultant

Key Tasks: Quality assurance and quality control; technical guidance; model and report review.

Summary of Qualifications: Ichiko has more than 20 years of public-sector consulting experience and specializes in financial planning and rate design for California utilities. Ichiko is passionate about fine-tuning customized Excel financial models to best meet each client's needs. She has reviewed water and wastewater rates and financial plans for more than 200 utilities in California. Ichiko received her MBA from the Martin V. Smith School of Business & Economics, California State University, Channel Islands.

Zachary Van Dinther, Consultant

Key Tasks: Conduct financial, economic, and rate analysis; collect and analyze data; draft reports; work with the Project Manager to complete project tasks.

Summary of Qualifications: Zachary has more than six years of economic and financial rate consulting experience, working with over 25 water, recycled water, and wastewater utilities. He is an expert in Excel and adept at econometric customer-demand projections and visualizing proposed bill impacts, leveraging coding skills. Zachary received his B.A. in Environmental Economics from Michigan State University, where he researched with Dr. Jan Beecher for the Institute of Public Utilities.

EXPECTED STAFF COMMITMENT

Olivehurst Public Utility District

	Hours				
Tasks	**PD**	**PM**	**QA/QC**	**C**	**Total**
1. Project Management	1	6	1	4	12
2. Financial Plan	2	6	2	8	18
3. Cost of Service Analysis	1	4	1	4	10
4. Rate Design	2	4	1	8	15
5. Reports & Models	1	8	2	12	23
6. Public Meetings - Proposition 218 Support	0	4	0	4	8
Total Estimated Meetings / Hours	**7**	**32**	**7**	**40**	**86**
Hourly Billing Rates	**$310**	**$240**	**$240**	**$200**	

Labor Category	Rate
Project Director	$310
Project Manager	$240
QA/QC Consultant	$240
Consultant	$200

EXCEPTIONS

RDN takes no exceptions to the District's RFP.

APPENDICES

The appendix includes full resumes.

Robert D. Niehaus, Ph.D.

Project Director

TECHNICAL SPECIALTIES

- Project Management
- Regional and Resource Economics
- Rate and Fee Comparison
- Economic Impact Studies
- Public Sector Water Economic and Planning Analysis
- Technical Report Review
- Cost of Service Rate Studies
- Development Impact Fees
- Resource Planning
- Econometric Modeling
- Survey Design and Implementation

PROFESSIONAL HISTORY

Robert D. Niehaus, Inc.
Managing Director
(1983-Present)

EDUCATION

Doctor of Philosophy in Economics (1979)
University of Maryland

Bachelor of Arts in Government (1972) Oberlin College

PROFESSIONAL MEMBERSHIPS

- American Water Works Association
- American Economic Association
- National Association for Business Economics

OVERVIEW & BIOGRAPHY

Dr. Niehaus is widely recognized for his expertise in the economics of water resources and the environment. He has broad experience managing public and private sector water and land resource economic analyses and planning efforts, with expertise in water and wastewater fee and rate analysis, cost-benefit evaluations, water demand econometric modeling and forecasting, and regional economics. His expertise extends to river basin planning, groundwater management, economic impacts of water and other resource-use projects, military base realignment, housing, energy, and global climate change. He has provided expert support to senior civilian and military decision-makers for numerous projects. Dr. Niehaus has published a wide range of applied studies in these fields and has directed the successful completion of projects at more than 200 locations worldwide, with much of this experience in Southern California.

RELEVANT PROJECT EXPERIENCE

- City of Alhambra, *Water Rate Study*
- Costa Mesa Sanitary District, *Wastewater Rate Study*
- Rosamond Community Services District, *Water and Wastewater Rate Studies*
- Napa County, *Water and Wastewater Rate Studies*
- Lake Arrowhead Community Services District, *Water & Wastewater Rate Study*
- *California City, Water and & Sewer Impact Fee Study*
- Mid-Peninsula Water District, *Capacity Fee Study*
- West Valley Water District, *Development Impact Fee Study*
- Quartz Hill Water District, *Water Rate Study*
- California City, *Water, Sewer, and Recycled Water Rate Study*
- Palmdale Water District, *Water Rate Study*
- Santa Clarita Valley Water District, *Water Rate Study*
- California Rural Water Association*, Water & Sewer Rate Studies*
- Ventura River Water District, *Cost of Service and Rate Setting Study*
- Moulton Niguel Water District*, Cost of Service Peer Review*
- Carpinteria Valley Water, *District Cost of Service and Rate Setting Study*
- Manatt, Phelps, & Phillips, *LLC, Rate Comparison Study*
- National Resources Defense Council*, LADWP Data Collection & Water Rate Analysis*
- West Basin Municipal Water District, *Landscape Irrigation Efficiency Program*
- *Las Virgenes Water Budget Model*
- Fremont Valley Preservation Project*, Water Rate, and Revenue Analysis Study*
- Golden State Water Company, *Comparative Water Rate Analysis*
- Goleta Sanitary District/Goleta West Sanitary District*, Economic Analysis of Development Projections*
- Santa Barbara County, *Economics of Groundwater Management*
- City of Santa Barbara, *Desalination Plant Environmental Impact Report*
- United States Army Corps of Engineers, *Flood Protection and Recreation Study*
- City of Santa Barbara, *Long-Term Water Sales and Revenue Requirements Forecast Analysis*
- Santa Ynez River Basin*, Planning and Cachuma Project Water Allocation Analyses*

Anthony Elowsky, M.A.

Project Manager

TECHNICAL SPECIALTIES

- Financial Planning
- Cost of Service Analysis
- Rate Design
- Database Management
- Rate Comparison
- Data Analysis
- Technical Report Review

PROFESSIONAL HISTORY

Robert D. Niehaus, Inc.
Project Manager/Analyst (2018-Present)
Market Researcher (2017-2018)

Dudek Environmental, Inc.
Technician (2016-2017)

EDUCATION

M.A. (2020) CSU, Fullerton

B.A. (2014) CSU, Los Angeles

PROFESSIONAL PRESENTATIONS

- *Wastewater Rate Changes and the Journey to Acceptance* California Rural Water Association Expo 2022, Stateline, NV. March.
- *Incorporating Customer Use Distributions when Calculating Drought Surcharges.* Paper presented at the ACWA Virtual Fall Conference, October 27-29, 2020.

OVERVIEW & BIOGRAPHY

Mr. Elowsky manages RDN's utility financial planning projects, including water and wastewater rate- and fee-setting studies. His expertise lies in water and wastewater financial planning, cost of service analysis, rate and fee design, and applied economic research. He manages water and wastewater rate studies, capacity fee studies, and builds customized financial models to help utilities meet their financial goals. He has also conducted comparative water rate analyses and compiled and analyzed data on water rates and financial information for more than 100 purveyors throughout California. He provides rate setting expertise to professional organizations for both water and wastewater concerns. Mr. Elowsky holds a bachelor's degree from California State University, Los Angeles as well as a master's degree from California State University, Fullerton.

RELEVANT PROJECT HIGHLIGHTS

- Mieners Oaks Water District, *Water Rate Study*
- City of San Fernando, *Water and Sewer Rate Study*
- City of Santa Ana, *Water and Sewer Financial Plans and Utility Rate Study*
- Costa Mesa Sanitary District, *Sewer Rate and Fee Studies*
- Moulton Niguel WD, *Water Recycled Water, and Sewer Rate Review*
- South Coast WD, *Water, Recycled Water, and Sewer Rate Studies*
- High Valleys Water District, *Water Rate Study*
- City of Alhambra, *Water Rate Study*
- Montecito Sanitary District, *Wastewater Rate Study*
- Rosamond CSD, *Water and Wastewater Rate Study*
- Ventura River Water District, *Water Rate Financial Plan and Rate Study*
- Loleta Community Services District, *Sewer Rate Study*
- Lone Pine Community Services District, *Sewerr Rate Study*
- Palmdale Water District, *Water Rate Study*
- Napa County – LBRID/NBRID, *Water and Sewer Rate Studies*
- Quartz Hill Water District, *Water Rate Study*
- Redway Community Services District, *Water and Sewer Rate Studies*
- West Valley Water District, *Development Impact Fee Study*
- Mid-Peninsula Water District, *Capacity Fee Study*
- City of California City, *Water and Sewer Rate and Capacity Fee Studies*
- Timber Cove County Water District, *Water Rate Study*
- Riebli Mutual Water Company, *Water Rate Study*
- Palm Ranch Irrigation District, *Water Rate Study*
- City of Greenfield, *Water and Sewer Rate Studies*
- Chester Public Utilities District, *Water and Sewer Rate Studies*
- Mammoth CWD, *Water and Sewer Rate and Fee Studies*
- SCV Water, *Water and Wholesale Water Rate and Fee Studies*
- Mendocino City Community Services District, *Sewer Rate Study*
- City of Huntington Beach, *Sewer Rate Study*
- Lake County Sanitation District, *Sewer Rate Study*
- Wynola Water District, *Water Rate Review*
- City of Corona, *Water, Recycled Water, Sewer, and Electricity Rate Study*
- San Simeon Community Services District, *Sewer Rate Study*
- City of Loyalton, *Sewer Rate Study*

Ichiko Kido, M.B.A.

QA/QC Consultant

TECHNICAL SPECIALTIES

- Financial Planning
- Cost of Service Analysis
- Rate Design
- Rate Comparison Analysis
- Housing Market Analysis
- Data Analysis
- Technical Report Review
- Survey Interviewing
- Statistical Analysis

PROFESSIONAL HISTORY

Robert D. Niehaus, Inc.
Senior Technical Advisor
(2022 – Present)
Program Manager
(2005 – 2022)

EDUCATION

Master of Business Administration (2014) Martin V. Smith School of Business & Economic, California State University, Channel Islands

Bachelor of Arts in Law (1989)
Fukuoka University, Japan

PROFESSIONAL MEMBERSHIPS

- American Water Works Association
- Association of California Water Agencies
- California Rural Water Association
- Association of California Water Agencies

OVERVIEW & BIOGRAPHY

Ms. Kido has over 20 years of experience in utility financial planning. Ms. Kido advises RDN as a leading expert in developing rates and fees that meet Proposition 218 requirements and other laws and regulations. She is widely recognized as a leading consultant for designing conservation-based water rates, including budget-based rate designs. She also managed capacity fee studies throughout the state, ensuring the fees are compliant despite the dynamic regulatory landscape. Her expertise is founded upon her experience working with more than 200 water utilities throughout California. Ms. Kido is a member of the American Water Works Association (AWWA) and promotes best practices in the AWWA's *Manual M1 Principles of Water Rates, Fees and Charges and the WEF Manual of Practice Number 27*.

RELEVANT PROJECT HIGHLIGHTS

- South Coast Water District, *Water, Recycled Water, and Sewer Rate Studies*
- City of Alhambra, *Water Rate Study*
- Montecito Sanitary District, *Wastewater Rate Study*
- Ventura River Water District, *Water Rate Financial Plan*
- Napa County – LBRID/NBRID, *Water and Wastewater Rate Studies*
- Quartz Hill Water District, *Water Rate Study*
- Redway Community Services District, *Water and Sewer Rate Studies*
- West Valley Water District, *Development Impact Fee Study*
- Mid-Peninsula Water District, *Capacity Fee Study*
- Timber Cove County Water District, *Water Rate Study*
- Riebli Mutual Water Company, Water *Rate Study*
- Palm Ranch Irrigation District, *Water Rate Study*
- City of Greenfield, *Water and Sewer Rate Studies*
- Chester Public Utilities District, *Water and Sewer Rate Studies*
- Lost Hills Utility District, *Water and Sewer Rate Studies*
- North Edwards Water District, *Water Rate Study*
- Mendocino City Community Services District, *Sewer Rate Study*
- Manatt, Phelps, and Phillips, LLC, *Water Rate Comparison Study*
- Lake County Sanitation District, *Sewer Rate Study*
- Wynola Water District, *Water Rate Review*
- Riverfront Mutual Water Company, *Water Rate Study*
- San Simeon Community Services District, *Sewer Rate Study*
- City of Loyalton, *Sewer Rate Study*
- Rand Community Services District, *Water Rate Study*
- Center Water Company, *Water Rate Study*
- Palmdale Water District, *Water Rate Study*
- Santa Clarita Valley Water, *Water Rate Review*
- West Valley Water District, *Construction Water Rate Study*
- Hi-Desert Mutual Water Company, *Water Rate Study*
- Apple Valley Heights County Water District, *Water Rate Study*
- Daggett Community Services District, *Water Rate Study*
- Mariana Ranchos County, *Water Rate Study*
- Apple Valley View Mutual Water Company, *Water Rate Study*
- Sheep Creek Water Company, *Water Rate Study*

Zachary Van Dinther, B.S.

Consultant

TECHNICAL SPECIALTIES

- Database Management
- Data Analysis
- Statistical Programming
- Data Visualization
- Technical Report Review
- Cost Indexes

PROFESSIONAL HISTORY

Robert D. Niehaus, Inc.
Consultant (2020-Present)
Market Researcher (2017)

Institute of Public Utilities at Michigan State University
Research Assistant (2018-2020)

EDUCATION

Bachelor of Science in Environmental Economics (2020)
Michigan State University

PROFESSIONAL MEMBERSHIPS

- National Association for Business Economics (NABE)

OVERVIEW & BIOGRAPHY

Mr. Van Dinther provides financial and economic consulting support throughout the rate study process. He is responsible for collecting and analyzing water and wastewater data from agency budgetary documents and customer billing records. He also forecasts urban water demand and account growth and produces powerful data visualization tools, which are used in reports and public outreach materials. Mr. Van Dinther leverages his experience conducting research with Dr. Jan Beecher for the Institute of Public Utilities at Michigan State University, where he received his B.S. in Environmental Economics.

RELEVANT PROJECT HIGHLIGHTS

Rosamond Community Services District, *Water and Wastewater Rate Study*

- Helped evaluate the Districts' rates and financial data, make recommendations and propose rates that meet the water industry's rate-making policies.
- Performed econometric customer-demand projections and bill impact study
- Assisted in preparation of Proposition 218 hearing process

Lake Arrowhead Community Services District, *Water* & *Wastewater Rate Study*

- Forecasted water demand and account growth over a 10-year period utilizing econometric methods.
- Calculated cost escalation factors for District expenses using local, state and federal data sources.
- Presented findings to Board of Directors at public meeting

ADDITIONAL PROJECT EXPERIENCE

- City of Alhambra, *Water Rate Study*
- Rosamond CSD, *Water and Wastewater Rate Study*
- Quartz Hill Water District, *Water Rate Study*
- California City, Water, Recycled Water, and Sanitary Sewer Rate Studies
- West Valley Water District, *Development Impact Fee Study*
- Lake Arrowhead CSD, *Water and Wastewater Rate Study*
- Lost Hills Utility District, *Wastewater Rate Study*
- Lake County Sanitation District, *Wastewater Rate Study*
- Mid-Peninsula Water District, *Capacity Fee Study*
- California City, *Water and Wastewater Capacity Fee Studies*
- City of Loyalton, Waste*water Rate Comparison Study*
- Palmdale Water District, *Water Rate Study*
- Santa Clarita Valley Water, *Water Rate Review*
- California Rural Water Association, *Water Rate Study*
- Mariana Ranchos County, *Water Rate Study*
- Apple Valley View Mutual Water Company, *Water Rate Study*
- Thunderbird County Water District, *Water Rate Study*
- Juniper Riviera Community Water District, *Water Rate Study*
- Orosi Public Utility District, Waste*water Rate Study*
- West Valley County Water District, *Water Rate Study*
- Napa County, *Water and Sewer Rate Study*