



**SAN BERNARDINO
VALLEY** | A REGIONAL WATER
AGENCY SINCE 1954

**BOARD OF DIRECTORS WORKSHOP - RESOURCES/ENGINEERING
2:00 pm Tuesday, August 13, 2024**

In Person:

380 East Vanderbilt Way
San Bernardino, CA 92408

Online via Zoom:

<https://sbvmwd.zoom.us/j/82492309440>

Meeting ID: 824 9230 9440

PASSCODE: 3802020

By Telephone:

Dial-in Info: (877) 853 5247 US Toll-free

Meeting ID: 824 9230 9440

PASSCODE: 3802020

If you are unable to participate online or by telephone, you may also submit your comments and questions in writing for the District's consideration by sending them to comments@sbvmwd.com with the subject line "Public Comment Item #" (insert the agenda item number relevant to your comment) or "Public Comment Non-Agenda Item". Submit your written comments by **6:00 p.m. on Monday, August 12, 2024**. All public comments will be provided to the Board President and may be read into the record or compiled as part of the record.

IMPORTANT PRIVACY NOTE: Online participants **MUST** log in with a Zoom account. The Zoom app is a free download. Please keep in mind: (1) This is a public meeting; as such, the virtual meeting information is published on the World Wide Web and available to everyone. (2) Should you participate remotely via telephone, your telephone number will be your "identifier" during the meeting and available to all meeting participants; there is no way to protect your privacy if you elect to call in to the meeting.



SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
380 E. Vanderbilt Way, San Bernardino, CA 92408

BOARD OF DIRECTORS' WORKSHOP - RESOURCES/ENGINEERING
2:00 PM Tuesday, August 13, 2024

CALL TO ORDER

Chairperson: Director Hayes Vice-Chair: Director Harrison

1) INTRODUCTIONS

2) PUBLIC COMMENT

Members of the public may address the Board regarding any item within the subject matter jurisdiction of the Board; however, no action may be taken on off-agenda items except as authorized by law. Each speaker is limited to a maximum of three (3) minutes.

3) DISCUSSION AND POSSIBLE ACTION ITEMS

- 3.1 Consider an Agreement with Water Resources Economics to prepare a Cost of Service and Rate Design Study (30 min) - Page 2
[Staff Memo - Consider an Agreement with Water Resources Economics to prepare a Cost of Service and Rate Design Study](#)
[Proposal from Water Resources Economics](#)

4) FUTURE BUSINESS

5) ADJOURNMENT



DATE: August 13, 2024

TO: Board of Directors' Workshop – Resources/Engineering

FROM: Greg Woodside, Chief of Planning and Watershed Resilience
Cindy Saks, Chief Financial Officer/Deputy General Manager

SUBJECT: Consider an Agreement with Water Resources Economics to prepare a Cost of Service and Rate Design Study

Staff Recommendations

Staff recommends that the Board of Directors authorize the CEO/General Manager to execute an agreement with Water Resources Economics, LLC for an amount not to exceed \$192,120 to prepare a Cost of Service and Rate Design Study.

Summary

The District has a range of regional and collaborative activities and projects that do not currently have a defined funding mechanism to cover or recoup our costs associated with the activities (for example, basin management and Watermaster obligations, recharge of recycled water and new local stormwater capture). The District's volumetric rate at which it sells State Water Project (SWP) water has not been updated in over 20 years despite increasing costs. Staff has worked with the Cost of Service Study ad-hoc Committee to develop a proposed approach to move forward on these topics.

The purpose of the proposed Cost of Service and Rate Design Study is to (1) evaluate our expenses, revenues and current cost structure/business model considering our future revenue needs, especially in the General Fund, which is used for local projects, and (2) evaluate potential new approaches or structures to fund the District's local projects and programs that are necessary to meet our services area's long-term water supply needs and groundwater basin management responsibilities.

Motivation for Proposed Cost of Service and Rate Design Study

The District's two primary funds are a General Fund and a State Water Contract Fund. The General Fund is an unrestricted fund, while the State Water Contract Fund is restricted to expenses related to the State Water Contract.

The General Fund has been used to fund new local infrastructure capital improvement projects in recent years through a strategic approach. The District does not have adequate, long-term sources of revenue for multiple District responsibilities and long-term goals. These include responsibilities under 1969 Western and Orange County Judgments and goals and objectives identified in the District's Strategic Plan such as implementing new groundwater recharge and stormwater capture projects.

For example, the 1969 Western Judgment requires the District to provide supplemental water for the San Bernardino Basin Area under certain circumstances, such as if the San Bernardino Entities cumulative extractions exceed their cumulative allocation of adjusted safe yield or to provide replenishment when the average groundwater levels at three wells in the Colton and Riverside Basin Areas fall below a specified elevation. When the Judgment was approved in 1969, the District was able to impose a tax on property within the District to provide funding for the District's programs and projects. Voter approval of Proposition 13 in June 1978 significantly changed the District's ability to fund programs and projects through a tax assessment on property. Proposition 13 limited the use of property tax assessment revenues to the restricted State Water Contract Fund unless the voters approved an incremental increase in the property tax by a two-thirds vote. Since the approval of Proposition 13, there has not been a new mechanism developed to fund the District's projects and programs that previously could have been funded through a property tax assessment. The District is required to provide supplemental water under the 1969 Western Judgment and also administer both Western and Orange County Judgments but there is no identified revenue source for these responsibilities.

The District's Strategic Plan adopted in 2023 identifies the District's mission as 'To work collaboratively to provide a reliable and sustainable water supply to support the changing needs of our region's people and environment.' Through the Strategic Plan, the District identified objectives to ensure long-term groundwater sustainability, implement a regional stormwater capture program, develop opportunities for new recharge and/or storage within the region, and develop comprehensive, interdisciplinary strategies to address long-term uncertainties and adaptive management measures to ensure a reliable water supply.

Development of Proposed Scope of Work

Staff met internally to develop the preliminary concepts for the proposed scope of work. Staff then shared these concepts with the Cost of Service Study ad-hoc Committee, received the Committee's feedback, and further developed the concepts.

District staff also identified a consultant with extensive experience working with other State Water Project contractors. Previous experience providing consulting service to SWP contractors was an important consideration due to the unique and complex nature of the SWP contractors' financial commitments and responsibilities.

District staff and the Committee met with Mr. Sanjay Gaur of Water Resources Economics (WRE) and reviewed his qualifications. Mr. Gaur has consulted with San Geronimo Pass Water Agency, Alameda County Water District, Mojave Water Agency, Santa Clarita Valley Water District and Zone 7 Water Agency regarding their SWP contractor financial responsibilities and rate setting. Mr. Gaur has also conducted a wide range of cost of service studies and rate studies for water agencies throughout California. WRE was retained earlier this year with a Phase 1 contract under the General Manager's approval to assist with preliminary steps. Phase 1 included reviewing the District's financial structure, prior financial models, examining revenue streams, and services the District provides. WRE also began development of a Financial Framework that describes the services provided and how they are currently funded. The Financial Framework forms the basis for an updated financial model to be developed in the attached proposal from WRE.

Description of Proposed Scope of Work

The proposed Scope of Work is defined through ten tasks, which are summarized below.

Task 1: Develop Financial Model - Create a new financial model based on the Financial Framework that is being developed in Phase I. The financial model will incorporate scenario analyses to evaluate the financial impacts of multiple decision points, such as the ability to develop new revenue streams.

Task 2: Identify Cost Centers and Allocation Methodologies - Develop an inventory of District services and their associated expenses. Allocation of District services and their expenses to these cost centers will provide the basis for assessing the potential revenue streams to fund them.

Task 3: Review State Water Project Costs - Review the District's SWP costs and the various revenue streams that are in place to recover those costs. This review will inform the proposed rate structure and will determine how all SWP costs are allocated within the cost of service analysis in Taks 6.

Task 4: Assess New and Current Revenue Sources - Assess the District's ability to develop new sources of revenue and to use current revenues to fund expenses.

Task 5: Assess Need for Capital Reserve Funds - Assess the need for a Capital Improvement Project Fund for new non-SWP local infrastructure capital projects; assess the need for a Repair and Replacement Fund, which is for expenses related to maintaining existing District infrastructure.

Task 6: Conduct Cost of Service Analysis - Conduct a comprehensive cost of service analysis in accordance with industry standards. The cost of service analysis is necessary to ensure a strong "nexus" between the costs incurred by the District and the rates charged to customers.

Task 7: Develop Water Rates - Evaluate the current rate structure and identify potential rate structure alternatives based on the District's rate and policy objectives. The goal is to design water rates that can fund necessary operating and capital costs and meet the District's policy objectives.

Task 8: Document Findings in Long-Range Financial Plan and Rate Study Report - Prepare a report that describes the policy considerations, technical analyses, and results of the Water Cost of Service and Rate Design Study.

Task 9: Stakeholder Meetings - Prepare for and participate in stakeholder meetings, Committee meetings, and Board meetings.

Task 10: Additional Technical Analysis and Meetings - If needed, conduct additional technical analysis and attend up to two additional in-person meetings. The specifics of the additional technical analysis and meetings will be determined based on additional needs identified during the study.

The estimated cost associated with each task in the proposal from WRE is summarized in the table below:

Summary of Tasks for Cost of Service and Rate Design Study	
Task Description	Cost
Task 1: Develop Financial Model	\$21,120
Task 2: Identify Cost Centers and Allocation Methodologies	\$13,120
Task 3: Review State Water Project Costs	\$11,120
Task 4: Assess New and Current Revenue Sources	\$10,120
Task 5: Assess Need for Capital Reserve Funds	\$10,120
Task 6: Conduct Cost of Service Analysis	\$10,120
Task 7: Develop Water Rates	\$12,120
Task 8: Document Findings in Rate Study Report	\$24,000
Task 9: Stakeholder Meetings	\$62,880
Task 10: Additional Technical Analysis and Meetings	\$17,400
	Total: \$192,120

Staff anticipates that the Cost of Service and Rate Design Study will establish the financial foundation for the District to fulfill its mission. Outcomes from the Cost of Service and Rate Design Study are anticipated to include:

- Board consideration of development of a new SWP rate structure
- Board consideration of cost recovery for services provided, such as environmental permitting and compliance
- Board consideration of new revenue sources, such as a Replenishment Assessment levied on groundwater pumping
- Board consideration of a Capital Improvement Fund and a Repair and Replacement Fund
- Board consideration of the uses of Redevelopment Agency and Unitary tax revenues

Staff anticipates completion of each of the tasks in the Scope of Work will extend over a two-year time period. Tasks 1 through 5 will be completed within year one and Tasks 6 through 9 will be completed in year two.

District Strategic Plan Application

The Cost of Service and Rate Design Study aligns with the District's Strategic Plan. Goal 4.4 in the Strategic Plan: Goals and Objectives is 'Build affordable and equitable local water supply projects'; objective 1 within Goal 4.4 is 'Develop long-term financial strategy to construct local water supply projects.' Two actions identified under objective 1 are 'Complete cost of service study for local water supply projects (2023-2024)' and 'Develop portfolio of creative funding opportunities and partnerships to help fund project(s) (2023-2024).'

Fiscal Impact

The proposed study is included in the adopted General Fund budget under the Consultants (6360) category.

Attachment:

- Proposal from Water Resources Economics

August 5, 2024

Greg Woodside
Chief of Planning and Watershed Resilience
San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino CA 92408

Subject: Proposal for Cost of Service and Rate Design Study

Dear Mr. Woodside,

Water Resources Economics, LLC (WRE) is pleased to submit this proposal to the San Bernardino Valley Municipal Water District (District) for a Cost of Service and Rate Design Study.

WRE is well-qualified to provide this service. I have conducted hundreds of water rate studies over the last 25 years throughout California and am an expert in developing rates that can withstand different financial and legal challenges.

I have consulted the following State Water Contractors: Alameda County Water District, Mojave Water Agency, San Geronio Pass Water Agency, Santa Clarita Valley Water District and Zone 7 Water Agency. I understand the various technical, political, and regulatory standards associated with designing such rates.

It would be my pleasure to assist the District on this important project. If you have any questions, please contact me at 213-327-4405 or by email at sgaur@water-economics.com.

Sincerely,



Sanjay Gaur
Principal Consultant
Water Resources Economics, LLC

Project Understanding

The San Bernardino Valley Municipal Water District has not updated its rates for State Water Project (SWP) water for over 20 years, which presents challenges in a rapidly changing utility industry. The District faces rising, and often unpredictable, costs to secure the reliability of its imported water supply as a State Water Contractor and to serve its retail water agencies as a water wholesaler. Additionally, the District is tasked with managing the groundwater basins within its service area.

The key objective of the Water Cost-of-Service and Rate Design Study is to connect the dots between 1) the costs for all District activities, including SWP supplies, local groundwater/basin management and environmental compliance to build, operate and maintain water supply projects, and 2) the revenue streams the District currently has or may have access to in the future to fulfill its mission.

This objective is especially important as the District expects to face significant potential future costs associated with the Sites Reservoir and the Delta Conveyance Project, while being constrained by limited General Fund reserves and by restricted State Water Contract (SWC) Fund reserves.

WRE proposes the following scope of work to assist the District with evaluating potential solutions for its key challenges. This scope represents Phase II of our work with the District and builds off the financial framework currently being developed in collaboration with District staff in Phase I.

Scope of Work

Task 1: Develop Financial Model

WRE will create a new, non-proprietary financial model in Microsoft Excel based on the financial framework that is being developed as part of Phase I. The financial framework provides a basis for a financial planning model based on the District's long-term needs. The financial model will incorporate scenario analyses to evaluate the financial impacts of multiple decision points, such as the ability to develop new revenue streams (as part of Task 4).

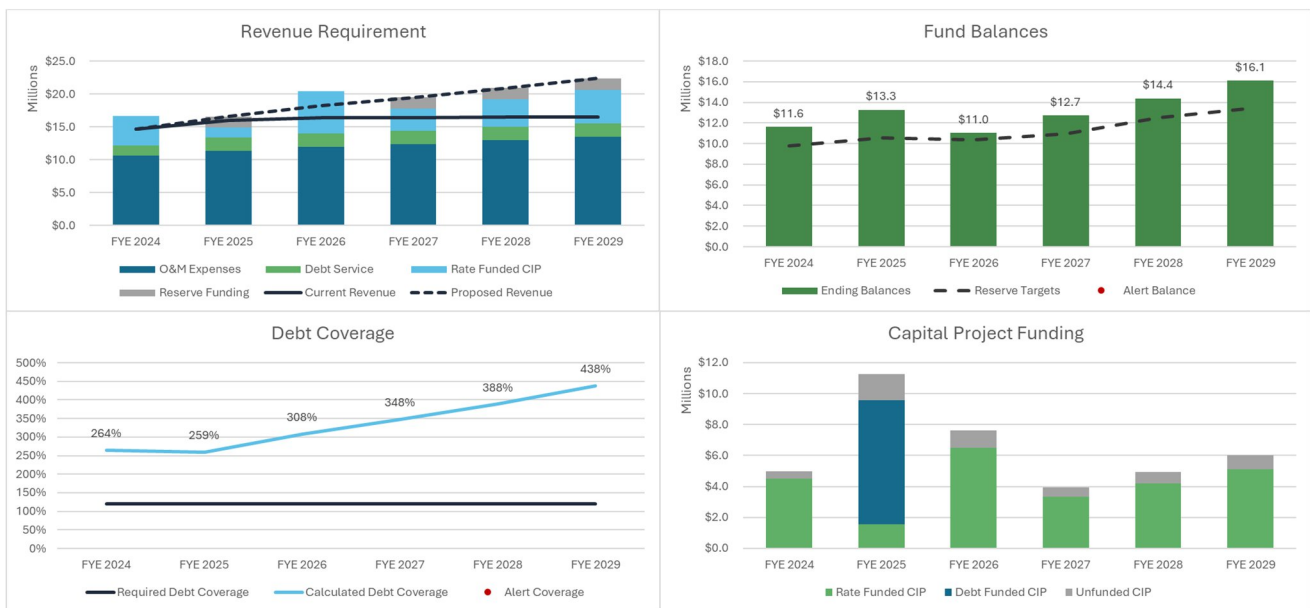
WRE will work closely with District staff to understand and identify the various assumptions that drive the model, such as expense inflation. The financial model will be projected out for over 20 years, allowing the District to plan for its long-term financial obligations more accurately. When possible, the model will include the results of Tasks 2-6 in this scope of work.

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San Bernardino Valley Municipal Water District

WRE understands the importance of developing a user-friendly, transparent, and flexible Excel-based model that District staff can use for future financial planning. The financial model will be custom-built for the District’s needs and will include a financial plan dashboard. The dashboard is an effective tool to visually assess how each assumption or scenario impacts the financial plan and is instrumental in the decision-making process. The dashboard can:

- Change various assumptions such as CIP spending, projected changes, magnitude and timing of revenue and expenditure adjustments, etc.
- Flag errors and problematic results such as failure to meet debt coverage, below target reserves, etc.
- Perform sensitivity analyses and various “what-if” scenarios, so that impacts can be viewed instantaneously with built-in screen graphics

Following are examples of graphics that may be included in the dashboard developed for the District:



Meetings: 4 virtual webinars with District staff

Deliverables: Financial plan model in Microsoft Excel

Task 2: Identify Cost Centers and Allocation Methodologies

The next step is to take an inventory of District services and their associated expenses. WRE will work closely with District staff to identify the relevant cost centers to categorize the expenses of various District services. However, we must consider the benefit of developing cost centers (recovering expenses that the District does not currently have a revenue stream

Cost of Service and Rate Design Study

San Bernardino Valley Municipal Water District

for) in relation to its cost (the level of effort to track expenses, including staff time, in each cost center).

Based on prior discussion with District staff, potential cost centers include 1) environmental permitting and compliance services, 2) administration and management of groundwater basins, and 3) construction, operations, and maintenance of recharge basins for recycled and stormwater but can include others as various cost centers are evaluated as part of the study. Allocation of District services and their expenses to these cost centers will provide the basis for assessing the potential revenue streams to fund them.

Meetings: 4 virtual webinars with District staff

Deliverables: Cost center allocation in Microsoft Excel

Task 3: Review State Water Project Costs

WRE will review the District's SWP costs and the various revenue streams that are in place to recover those costs, such as the SWP water sale rate charged to retail water agencies, the SWP contract property tax assessment, and the SWC Fund Admin Fee. The District's SWP water sale rate has not changed for over 20 years, which presents a challenge considering potential future costs related to SWP.

Upcoming costs for SWP may include those related to the Sites Reservoir and the Delta Conveyance Projects. WRE will work with District staff to review the relevant Board resolutions and to determine the funding capabilities (and restrictions) of these potential costs. WRE understands that the District has built up significant reserves and plans on cash finance for at least a portion of the Projects. This review will inform the proposed rate structure and will determine how all SWP costs are allocated within the cost-of-service analysis in Taks 6.

WRE will review the statement of charges from the Department of Water Resources and evaluate how to assess these charges between property tax assessment and water rates. In addition, WRE will conduct a survey of the East Branch Extension of the SWP to see how other agencies have assessed these statements of charges. Task 8 of the study will include these considerations in the SWP water sale rate calculations.

Meetings: 4 virtual webinars with District staff

Deliverables: Review of SWP costs; survey of East Branch Extension of SWP in Microsoft Excel

Task 4: Assess New and Current Revenue Sources

Cost of Service and Rate Design Study

San Bernardino Valley Municipal Water District

This task involves further investigation into the District's ability to develop new sources of revenue and to use current revenues to fund expenses. WRE will work with District staff to assess current sources of revenue, such as Redevelopment Agency (RDA) funds and unitary taxes, and to determine how they can be utilized. This may involve reviewing the relevant regulations and/or ordinances to understand the District's revenue source restrictions and discussing with the District's legal counsel on potential paths forward.

One potential source of revenue is a Replenishment Assessment on groundwater pumping that correlate to the amount of water pumped. This source of revenue would allow the District to fund important capital projects related to local groundwater and basin management and operations. WRE will also evaluate other potential new sources of revenue as part of this task based on further discussions with District staff and policymakers.

Meetings: 4 virtual webinars with District staff

Deliverables: Analysis of potential revenue sources

Task 5: Assess Need for Capital Reserve Funds

The District currently has two funds: the General Fund and the SWC Fund. SWC Fund reserves are entirely restricted to SWP-related costs and are currently funded by the SWP property tax assessment. The District uses General Fund reserves for all other service functions, including capital project expenses. The use of General fund reserves is flexible, but the reserves are limited. The use of SWP fund reserves is restricted, but the reserves are much more substantial.

WRE will work with the District to assess the need for a Capital Improvement Project (CIP) Fund, which is for new non-SWP capital projects, and for a Repair and Replacement (R&R) Fund, which is for capital spending related to existing District infrastructure. The development of a CIP Fund will provide transparency in capital spending by showing retailers and the public how the District collects and uses capital funds. The R&R Fund will provide more stable reserves for the District to maintain and refurbish its facilities over time.

Meetings: 4 virtual webinars with District staff

Deliverables: Analysis of capital reserve funds

Task 6: Conduct Cost-of-Service Analysis

Based on the results of Tasks 1-5, WRE will conduct a comprehensive cost-of-service analysis in accordance with industry standards and methodologies outlined in the American Water Works Association (AWWA) in its *Manual of Water Supply Practices M1: Principles of Water*

Cost of Service and Rate Design Study

San Bernardino Valley Municipal Water District

Rates, Fees and Charges, Seventh Edition (M1 Manual) and any other relevant industry best practices and/or state regulatory requirements, including, but not limited to, Proposition 26. The cost-of-service analysis is necessary to ensure a strong “nexus” between the costs incurred by the District and the rates charged to customers.

The cost-of-service analysis will be utilized to allocate the water rate revenue requirements (identified in Task 1) to “cost causation components” and then to the associated rates and charges. This ensures that water system costs are distributed equitably and that customers will be charged commensurate with the cost incurred by the District to provide water services.

Meetings: 4 virtual webinars with District staff

Deliverables: Cost-of-service analysis in Microsoft Excel

Task 7: Develop Water Rates

WRE will work with District staff to evaluate the current rate structure and identify potential rate structure alternatives based on the District’s rate and policy objectives. Certain rate structures better address specific policy objectives. For example, an inclining tiered water rate structure is typically more effective in sending a price signal to moderate water demand. WRE will develop an Excel-based rate model to calculate proposed water rates based on the rate revenue requirement determination (in Task 1) under both the current and alternative rate structure(s) selected for consideration. The water rates will include the results of Tasks 2-5, as applicable. The goal is to design water rates that can fund necessary operating and capital costs and meet the District’s policy objectives, such as reducing water usage and incentivizing water efficiency. In addition, WRE will discuss different policy options available to assist retail agencies in promoting water efficiency and reducing water usage.

Meetings: 4 virtual webinars with District staff

Deliverables: Water rate model in Microsoft Excel

Task 8: Document Findings in Long-Range Financial Plan and Rate Study Report

WRE will draft a report that presents a detailed description of all policy considerations, technical analyses, and results of the Water Cost-of-Service Study. The report will highlight the key issues and decisions reached during the rate study and will provide detailed explanations of the financial plan projections, any proposed rate and fee structure changes, and proposed rate calculations. The rate study report will serve as the District’s administrative record, which is a technical document that describes the assumptions, methodologies, results, cost allocations, and calculations that are used to develop the proposed wholesale water rates.

Cost of Service and Rate Design Study

San Bernardino Valley Municipal Water District

District staff and legal counsel will review and provide input on the draft report, which WRE will incorporate into a final report version. If necessary, WRE will schedule two virtual meetings with District staff and legal counsel to discuss comments and feedback on the draft report.

Meetings: 2 virtual webinars with District staff

Deliverables: Draft and final reports in Microsoft Word and PDF

Task 9: Stakeholder Meetings

WRE will attend four (4) in-person stakeholder meetings, eight virtual Ad-Hoc Committee meetings, and six in-person Board meetings. WRE will prepare presentations for each meeting, which may include discussions on policy decisions, key issues, preliminary results, and final results. WRE will be available to answer any questions from the District's Board, Ad-Hoc Committee, stakeholders, and/or the public that may arise during the meetings.

Meetings: 4 in-person stakeholder meetings, 8 virtual Ad-Hoc Committee meetings, 6 in-person Board meetings

Deliverables: Presentation materials

Task 10: Additional Technical Analysis and Meetings

As directed by District staff during the course of the study, WRE will conduct additional technical analysis and attend up to two additional in-person meetings. The specifics of the additional technical analysis and meetings will be determined based on additional needs identified during the study. Up to two additional virtual meetings will also be conducted to review and discuss the additional analysis with District staff.

Meetings: 2 in-person meetings, 2 virtual meetings

Deliverables: Additional technical analyses (TBD), presentation materials

Water Cost-of-Service Study

San Bernardino Valley Municipal Water District

Fees

WRE proposes to complete the proposed scope of work based on the fee table shown below, with a not-to-exceed value of \$192,120. WRE will invoice the District based on time and materials. The three individuals staffed on this project are Sanjay Gaur, the Project Manager with an hourly rate of \$320 per hour, and Nancy Phan and Charles Diamond, the Project Analysts with an hourly rate of \$200 per hour. The billing rates for this project will not change over a two-year period.

Project Tasks	Number of Meetings		Billable Hours		Proposed Fees		
	Virtual Meetings	In-Person Meetings	Sanjay Gaur	Nancy Phan/ Charles Diamond	Reimbursed Expenses	Consultant Fees	Total Fee
Task 1: Develop Financial Model	4	0	16	80	\$0	\$21,120	\$21,120
Task 2: Identify Cost Centers and Allocation Methodologies	4	0	16	40	\$0	\$13,120	\$13,120
Task 3: Review State Water Project Costs	4	0	16	30	\$0	\$11,120	\$11,120
Task 4: Assess New and Current Revenue Sources	4	0	16	25	\$0	\$10,120	\$10,120
Task 5: Assess Need for Capital Reserve Funds	4	0	16	25	\$0	\$10,120	\$10,120
Task 6: Conduct Cost-of-Service Analysis	4	0	16	25	\$0	\$10,120	\$10,120
Task 7: Develop Water Rates	4	0	16	35	\$0	\$12,120	\$12,120
Task 8: Document Findings in Rate Study Report	2	0	25	80	\$0	\$24,000	\$24,000
Task 9: Stakeholder Meetings	8	10	134	90	\$2,000	\$60,880	\$62,880
Task 10: Additional Technical Analysis and Meetings	2	2	25	45	\$400	\$17,000	\$17,400
Total	40	12	296	475	\$2,400	\$189,720	\$192,120

Fee Details

Est. Reimbursed Expenses per In-Person Meeting: \$200

Hourly Billing Rate - Sanjay Gaur: \$320

Hourly Billing Rate - Nancy Phan: \$200

Hourly Billing Rate - Charles Diamond: \$200

References

Mojave Water Agency

13846 Conference Center Drive
Apple Valley, CA 92307

Reference(s):

Adnan Anabtawi, General Manager
aanabtawi@mojavewater.org
(760) 946-7000

San Geronio Pass Water Agency

1210 Beaumont Avenue
Beaumont, CA 92223

Reference(s):

Lance Eckhart, General Manager
leckhart@sgpwa.com
(951) 845-2577

Santa Clarita Valley Water Agency

27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173

Reference(s):

Valerie Pryor, Finance Director (Former)
See reference below

Zone 7 Water Agency

100 N Canyons Parkway
Livermore, CA 94551

Reference(s):

Valerie Pryor, General Manager
vpryor@zone7water.com
(925) 454-5000

Resumes

Resume – Sanjay Gaur, Principal Consultant

TECHNICAL SPECIALTIES

- Financial analysis
- Cost of service studies
- Conservation rate structure design
- Connection fee studies
- Public outreach
- Proposition 218 rates

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Principal Consultant (2021-present)
- **Raftelis Financial Consultants, Inc.**, Vice President (2015-2021); Senior Manager (2012-2014); Manager (2009-2012)
- **Red Oak Consulting**, Division of Malcolm Pirnie (2007-2009)
- **MuniFinancial** (2005-2006)
- **A & N Technical Services**, (1999–2003)
- **United States Peace Corps**, Bulgaria (1995-1997)

EDUCATION

- Master in Public Administration - International Development, Kennedy School of Government - Harvard University (2003)
- Master of Science, Applied Economics - University of California, Santa Cruz (1994)
- Bachelor of Arts, Economics and Environmental Studies - University of California, Santa Cruz (1992)

PROJECT EXPERIENCE

- **Alameda County Water District (CA)** - Financial Plan Study and Annual Updates, Conservation Tiered Rate Feasibility Analysis, Drought Rate Study, Water Cost of Service and Rate Study, and other Ad-hoc Support
- **Amador Water District (CA)** – Water and Wastewater Rate Study
- **American Water Company (CA)** - Water Rate Study
- **City of Buckeye (AZ)** – Water Rate Study and Capacity fee
- **Borrego Water District (CA)** – Financial Planning Study, Groundwater Sustainability Plan, Water Rate Study, and Basin Management Evaluation
- **City of Calexico (CA)** - Water and Sewer Rate Study
- **City of Camarillo (CA)** – Water and Wastewater Rate Study, Financial Plan Study, and Cost of Service Study,
- **Carpinteria Sanitary District (CA)** – Sewer Rate and Fee Study
- **Castaic Lake Water Agency (CA)** – Wholesale Water Rate Study, Drought Rates, Rate Analysis, and Facility Capacity Fees
- **Central Basin Municipal Water District (CA)** – Financial Plan
- **City of Chino (CA)** – Water Budget Rate Design, Financial Plan Study and Cost of Service and Rate Design

Cost of Service and Rate Design Study
San Bernardino Valley Municipal Water District

- **City of Chowchilla (CA)** – Water and Wastewater Rate Study
- **Coastside County Water District (CA)** – Water Rate Study
- **Contra Costa Water District (CA)** – Financial Plan Study, Water Rate Study and Drought Rates Study
- **City of Corona (CA)** – Water Budget Rate Study, Wastewater Capacity Fees Study
- **Cucamonga Valley Water District (CA)** – Financial Plan, Water Conservation Rate Study, and Drought Rates
- **East Bay Municipal Utility District (CA)** – Water and Wastewater Cost of Service and Rate Study
- **Eastern Municipal Water District (CA)** – Water Budget Study and Financial Plan Study
- **East Orange County Water District (CA)** - Water Budget Study, Sewer Capacity Fees Study, and Financial Plan Study
- **Elsinore Valley Municipal Water District (CA)** – Financial Model, Drought Rate Analysis, Water and Recycled Water Rate Study, Capacity Fee Study, and Wastewater Rate Study
- **El Toro Water District (CA)** – Water Budget Study and Recycled Water Financial Plan Study
- **City of Escondido (CA)** – Water and Wastewater Rate Study and Capacity Fees Study
- **Fallbrook Public Utilities District (CA)** – Water, Wastewater and Recycled Water Rate Study
- **City of Florence (AZ)** – Water and Wastewater Rate Study
- **City of Gilbert (AZ)** – Fire Financial Plan
- **City of Glendora (CA)** – Water Budget Feasibility Study
- **City of Gridley (CA)** – Water Rate Study
- **Helix Water District (CA)** – Water Rate and Cost of Service Study
- **Hi-Desert Water District (CA)** – Water Rate Study
- **City of Hollister (CA)** - Sewer Rate and Impact Fee Study, Water Rates Study, and Capacity Fee Study
- **City of Huntington Beach (CA)** - Sewer Rate Study, Water Budget Rate Study, and Financial Plan Study
- **Imperial County Gateway County Service Area (CA)** – Water and Wastewater Rate Study
- **Indio Water Authority (CA)** - User Fee Study and Water Rate Study
- **Inland Empire Utilities Agency (CA)** – Conservation Rate Structure Workshop and Financial Plan Study
- **Inyo County Water Department (CA)** – Water Rate Study
- **Irvine Ranch Water District (CA)** - Conservation Study
- **Jurupa Community Services District (CA)** – Water Budget Study
- **La Habra Heights County Water District (CA)** – Wheeling Rate Study and Financial Plan Study
- **La Puente Valley County Water District (CA)** – Water Rate and Fee Study
- **Las Virgenes Municipal Water District (CA)** – Water Budget Rate Study, Water, RW and WW Financial Plan and Rate Studies, Capacity Fees Study
- **City of Livermore (CA)** – Water Cost of Service Study
- **City of Livingston (CA)** - Water Rate Study
- **City of Lomita (CA)** - Water Rate Workshop
- **City of Long Beach (CA)** - Water, Recycled Water and Wastewater Financial Plan and Rate Studies

Cost of Service and Rate Design Study
San Bernardino Valley Municipal Water District

- **Los Alamos Community Services District (CA)** – Water and Wastewater Rate Study
- **Los Angeles Department of Water and Power (CA)** - Daily Demand Estimates
- **City of Lynwood (CA)** - Cost Allocation Plan
- **City of Malibu (CA)** – Wastewater and Recycled Water Rate Study
- **Mammoth Community Water District (CA)** – Water Rate Study
- **City of Merced (CA)** - Water and Sewer Rate and Impact Fee Study
- **Mesa Consolidated Water District (CA)** – Financial Plan Study, Cost Comparison Study, Water and Recycled Water Cost of Service and Rate Design Study
- **Metropolitan Water District of Southern California (CA)** – Drought Allocation Model, Long Range Financial Plan, and Cost of Service Evaluation
- **Mill Valley - Tamalpais Community Services District (CA)** – Financial Plan Study
- **Mojave Water Agency (CA)** – Financial Plan Study, Financial Impact Analysis for Water Exchange and Leasing Programs and Water Reliability Rate Development
- **Modesto Irrigation District (CA)** – Stormwater Fee Study
- **Monterey Peninsula Water Management District (CA)** - Water Budget Study
- **Municipal Water District of Orange County (CA)** - Conservation Potential Study and Rate Study
- **City of Newport Beach (CA)** – Water Rate Study
- **City of Palo Alto (CA)** – Water Cost of Service and Rate Study
- **Pasadena Water and Power (CA)** - Water Cost of Service and Rate Design Study
- **Placer County Water Agency (CA)** – Cost of Service, Rate, and Financial Plan Study
- **City of Pomona (CA)** – Rate Study
- **City of Port Hueneme (CA)** - Water and Solid Waste Rate Study
- **City of Orange (CA)** – Water and Sanitation Rate Study
- **Rancho California Water District (CA)** – Water Budget Rate Study, Water Demand Offset Fees, Commercial Water Budget Revision Study, Alternative Water Supply Feasibility Analysis
- **City of Reno (NV)** – Wastewater Rate Study
- **City of Rio Vista (CA)** - Water and Sewer Rate and Impact Fee Study
- **Rubidoux Community Services District (CA)** – Rate Advisor
- **Salton Community Services District (CA)** – Sewer Rate Study
- **San Benito County Water District (CA)** – Water Rate Study
- **City of San Clemente (CA)** – Water and Wastewater Rate Study
- **San Diego County Water Authority (CA)** - Indexing Model and Wholesale Water Rate
- **San Geronio Pass Water Agency (CA)** – Long Range Strategic Financial Plan
- **City of San Juan Capistrano (CA)** – Water Rate Study
- **Santa Clara Valley Water District (CA)** - Project Evaluation - Water Conservation Project
- **Santa Clarita Water District (CA)** – Retail Water Rate Study
- **City of Santa Cruz (CA)** - Financial Plan, Water Budget Feasibility Analysis, Cost of Service and Rate Study,

Cost of Service and Rate Design Study

San Bernardino Valley Municipal Water District

- Drought Rate Study, Capacity Fees Update and Water Demand Offset Fees Analysis, and Alternative Water Supply Feasibility Analysis
- **Scotts Valley Water District (CA)** – Water and Recycled Water Rate Study
- **City of Shasta Lake (CA)** – Water Rate Study and Water and Wastewater Capacity Fee Study
- **City of Sierra Madre (CA)** – Water and Sewer Rate Study
- **City of Signal Hill (CA)** – Water Rate and Cost of Service Study
- **City of Simi Valley (CA)** – Sewer Rate Study
- **Soquel Creek Water District (CA)** – Water Rate Structure Study
- **South Coast Water District (CA)** – Water Budget Assessment
- **South Mesa Water Company (CA)** – Rate Structure and Recycled Water Rate Study
- **City of South Gate (CA)** - Water Impact Fee
- **Sunnyslope County Water District (CA)** – Water Rates and Capacity Fees
- **Temescal Valley Water District (CA)** – Water and Sewer Rate Study and Capacity Fee Study
- **Trabuco Canyon Water District (CA)** – Water Rate Study
- **City of Thousand Oaks (CA)** – Water and Wastewater Cost of Service and Financial Plan Study
- **City of Ventura (CA)** – Water and Wastewater Rate Study
- **City of Vista (CA)** - Sewer Rate and Connection Fee Study
- **Walnut Valley Water District (CA)** - Water Rate Study
- **City of Watsonville (CA)** – Utility Enterprise Rate Study
- **Western Municipal Water District (CA)** - Financial Plan, Capacity Fees, and Water Budget Rate Studies
- **Yorba Linda Water District (CA)** - Sewer and Water Budget Rate Study, Financial Plan Study, and Cost of Service Rate Study
- **Zone 7 Water Agency (CA)** – Cost of Service Study and Water Rate Study Update

PUBLICATIONS

- Wittern, M., Gaur, S., “**Protecting Against Water Rate Challenges with the Equivalent of Bear Spray,**” *Journal – American Water Works Association*, March 2022, Volume 114, Issue 2
- Harmon, K., Mukherjee, M., Gaur, S., Atwater D., “**Evaluating Water Saving from Budget-Based Tiered Rates in Orange County, California,**” *Water Economics and Policy*, 2021, Volume 07, No. 2, 2150007
- Gaur, S., Smith, V., Kostiuik, K., “**Mandates and Messaging: How Californians Responded to the State’s Historic Drought,**” *Journal – American Water Works Association*, March 2019, Volume 111, Number 3.
- Gaur, S., Magu, D. “**California Water Rate Trends: Maintaining Affordable Rates in a Volatile Environment,**” *Journal – American Water Works Association*, September 2017, Volume 109, Number 9.
- Contributing Author to “**M1 Principles of Water Rates, Fees and Charges**” 7th Edition, American Water Works Association, 2017.

Cost of Service and Rate Design Study
San Bernardino Valley Municipal Water District

- Gaur, S., Giardina, R.D., Kiger, M.H., Zieburtz, W., “**Committee Report: Ripples from the San Juan Capistrano Decision,**” *Journal – American Water Works Association*, September 2016, Volume 108, Number 9.
- Gaur, S., Alikhan, A., Kostiuk, K. “**The Drought is over – Now is the time to develop drought rates,**” *CSMFO Magazine*, July 1, 2016.
- Gaur, S., Alikhan, A., Crea, J. “**Developing Drought Rates: Why Agencies Should Prepare for a Not-So-Rainy Day,**” January 2016, Volume 108, Number 1.
- Gaur, S., Isaac, Habib “**There's Opportunity in the San Juan Capistrano Rates Decision,**” Source California-Nevada Section AWWA, Fall 2015, Volume 29, Number 4.
- Gaur, S., Atwater, D., “**California Water Rate Trends,**” *Journal – American Water Works Association*, January 2015, Volume 107, Number 1.
- Contributing Author to “**Water and Wastewater Finance and Pricing: The Changing Landscape,**” 4th Edition, 2015, CRC Press, Editor: George Raftelis.
- Gaur, S., Atwater, D., Cruz, J., “**Why do Water Agencies need Reserves?**” *Journal – American Water Works Association*, November 2014, Volume 106, Number 11.
- Gaur, S., Atwater, D., Lee, J., “**Conservation Rates Offer Options,**” CA/NV Section of American Water Works Association, Spring 2014, Volume 28, Number 2.
- Gaur, S., Lim, B., Phan, K., “**California Water Rate Trends,**” *Journal – American Water Works Association*, March 2013, Volume 105, Number 3.
- Contributing Author to “**Water Rates, Fees and the Legal Environment,**” 2nd Edition, American Water Works Association, 2010 Editor: C.(Kees) W. Corssmit.
- Hildebrand, M. Gaur, S. and Salt, K. “**Water Conservation Made Legal: Water Budgets and California Law,**” *Journal of American Water Works*, 101:4 April 2009, p.85-89.
- Gaur, S. “**Policy Objectives in Designing Water Rates,**” *Journal of American Water Works*, 99:5 May 2007, p.112- 116.
- Gaur, S., “**Adelman and Morris Factor Analysis of Developing Countries,**” *The Journal of Policy Modeling*, Vol. 19, Issue 4, pp. 407-415, August 1997.

Resume – Nancy Phan, Senior Consultant

TECHNICAL SPECIALTIES

- Excel-based financial models
- Cost of service studies
- Water and wastewater rate design
- Technical report writing
- Proposition 218 rates
- Data analysis

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Senior Consultant (2023-present)
- **Raftelis Financial Consultants, Inc.**, Manager (2022-2023); Senior Consultant (2020-2021); Consultant (2018-2019); Associate Consultant (2016-2017)

EDUCATION

- Bachelor of Arts, Business Economics - University of California, Irvine (2015)

PROJECT EXPERIENCE

- **Amador Water Agency (CA)** – Water and Wastewater Cost of Service and Rate Study, Water Capacity Fees
- **Antelope Valley East Kern Water Agency (CA)** – Water Cost of Service and Rate Study Update
- **Carpinteria Valley Water District (CA)** – Water Cost of Service and Rate Study, Water Cost of Service and Rate Study Update
- **Central Contra Costa Sanitation District (CA)** – Wastewater Cost of Service and Rate Study Update, Capacity Fee Calculation
- **Coastside County Water District (CA)** – Water Cost of Service and Rate Study and Updates, Water Shortage Rate Study and Updates
- **Contra Costa Water District (CA)** – Treated and Untreated Water Cost of Service and Rate Study
- **City of Corona (CA)** – Water Cost of Service and Rate Study
- **City of Covina (CA)** – Water Cost of Service and Rate Study
- **City of Escondido (CA)** – Water Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study
- **City of Hayward (CA)** – Water Rate Study and Update, Wastewater Rate Study, Water and Sewer Connection Fees, Water Drought Rates
- **King County Wastewater Treatment Division (WA)** – Wastewater Financial Model and Rate Design
- **City of La Habra (CA)** – Water Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study
- **City of La Habra Heights (CA)** – Water Cost of Service and Rate Study
- **Madera County (CA)** – Groundwater Sustainability Agency Rate Study, Groundwater Sustainability Agency Rate Study Update
- **Marin Municipal Water District (CA)** – Water Cost of Service and Rate Study, Water Financial Plan Update
- **Montecito Water District (CA)** – Water Cost of Service and Rate Study
- **City of Monterey Park (CA)** – Water Cost of Service and Rate Study
- **City of Ontario (CA)** – Water and Recycled Water Cost of Service and Rate Study and Update, Wastewater Cost of Service and Rate Study and Update

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- **City of Oxnard (CA)** – Water Cost of Service and Rate Study
- **City of Palo Alto (CA)** – Drought Rate Study Update, On-Call Financial Services
- **City of Pasadena (CA)** – Water Cost of Service and Rate Study
- **City of Pleasanton (CA)** – Water, Recycled Water, and Wastewater Cost of Service and Rate Study and Update
- **City of Pomona (CA)** – Water Cost of Service and Rate Study
- **City of Port Hueneme (CA)** – Water Cost of Service and Rate Study
- **Rainbow Municipal Water District (CA)** – Wastewater Cost of Service and Rate Study
- **City of Redlands (CA)** – Water, Wastewater, and Non-Potable Water Cost of Service and Rate Study
- **City of Reno (NV)** – Stormwater Financial Plan and Rate Design
- **City of San Gabriel (CA)** – Wastewater Property Tax Roll, Wastewater Property Tax Roll Update
- **City of Santa Cruz (CA)** – Water Cost of Service and Rate Study, Connection Fee Study, Wheeling Charge Calculation
- **City of Santa Fe Springs (CA)** – Water Cost of Service and Rate Study
- **Seattle Public Utilities (WA)** – Drainage and Wastewater Financial Model, Water Financial Model, Solid Waste Financial Model
- **Selma-Kingsburg-Fowler County Sanitation District (CA)** – Wastewater Cost of Service and Rate Study, Wastewater Cost of Service and Rate Study Update
- **Soquel Creek Water District (CA)** – Alternative Water Rate Design Evaluation
- **City of South Pasadena (CA)** – Water Cost of Service and Rate Study
- **Stanford University (CA)** – Water and Sewer Rate Analysis, Comprehensive Benchmarking Study
- **City of Tacoma (WA)** – Wastewater Rate Study, Solid Waste Rate Study, Solid Waste Rate Study
- **City of Torrance (CA)** – Water Cost of Service and Rate Study
- **Vallejo Flood and Wastewater District (CA)** – Wastewater Cost of Service and Rate Study Update, Property Tax Roll Update
- **Valley Water / Santa Clarita Valley Water District (CA)** – Recycled Water Cost Allocation Evaluation
- **County of Ventura (CA)** – Water Rate Studies (for four Waterworks Districts)
- **Walnut Valley Water District (CA)** – Domestic and Recycled Water Cost of Service and Rate Study
- **West Basin Municipal Water District (CA)** – Wholesale Drinking Water Rate Analysis
- **Zone 7 Water Agency (CA)** – Wholesale Treated Rate Study and Updates, Wholesale Untreated Rate Study and Updates

PUBLICATIONS

- Armstrong, J., Harmon, K., Phan, N., “**The Power of Data to Improve Water Use Efficiency and Conservation,**” *Journal AWWA*, June 2017, Volume 109, No. 6.

[Resume - Charles Diamond, Senior Consultant](#)

Cost of Service and Rate Design Study
San Bernardino Valley Municipal Water District

TECHNICAL SPECIALTIES

- Long-term financial plans
- Cost of service studies
- Rate design
- Capacity fee studies
- Excel-based financial models
- Data analysis

PROFESSIONAL HISTORY

- **Water Resources Economics, LLC**, Senior Consultant (2023-present)
- **Raftelis Financial Consultants, Inc.**, Manager (2023); Senior Consultant (2021-2022); Consultant (2019-2020); Associate Consultant (2017-2018)
- **The Nature Conservancy**, Science & Stewardship Practitioner (2013-2015)

EDUCATION

- Master of Environmental Science and Management – Water Resources Management, Bren School of Environmental Science & Management – University of California, Santa Barbara (2017)
- Bachelor of Science, Environmental Economics and Policy - University of California, Berkeley (2013)

PROJECT EXPERIENCE

- **Alameda County Water District (CA)** - Financial Plan Study, Conservation Tiered Rate Feasibility Analysis,
- **Antelope Valley-East Kern Water Agency (CA)** – Annual Water Rate Update Studies
- **Antelope Valley State Water Contractors Association (CA)** – Replacement Water Assessment Study
- **Borrego Water District (CA)** – Water Rate Affordability Assessment
- **City of Brentwood (CA)** – Water and Wastewater Rate Study
- **City of Burbank (CA)** - Water Rate Study
- **Cucamonga Valley Water District (CA)** – Financial Plan, Water Conservation Rate Study, and Drought Rates
- **City of Dixon (CA)** – Water Rate Study
- **City of El Monte (CA)** – Water Rate Study, Water Cost Allocation Plan Study
- **Goleta Water District (CA)** – Water Rate Study
- **City of Huntington Beach (CA)** – Water Rate Study
- **Inyo County Water Department (CA)** – Water Rate Study
- **Jurupa Community Services District (CA)** – Inland Empire Brine Line Rate Study
- **La Cañada Irrigation District (CA)** (CA) – Water Rate Study
- **Las Virgenes Municipal Water District (CA)** –Water, RW, and WW Financial Plan and Rate Studies
- **City of Lincoln (CA)** – Water Rate Study
- **City of Long Beach (CA)** - Water, Recycled Water, and Wastewater Financial Plan, Water and Wastewater Rate Survey
- **Marin Municipal Water District (CA)** – Miscellaneous Fee Study
- **Mojave Water Agency (CA)** – Financial Impact Analysis for Water Exchange and Leasing Programs
- **Municipal Water District of Orange County (CA)** – Core Service Charge Allocation Study

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- **National Water and Sewerage Authority of Grenada** (Eastern Caribbean) – Water and Sewer Rate Study
- **Olivenhain Municipal Water District** (CA) – Water Rate Study, Water Pass-Through Rate Annual Updates
- **Placer County Water Agency** (CA) – Cost of Service, Rate, and Financial Plan Study, Water Connection Charge Study
- **Rancho California Water District** (CA) – Water Capacity Fee Study, Water Rate Study
- **Sacramento Suburban Water District** (CA) – Water Rate Study
- **San Francisco Public Utilities Commission** (CA) – Water and Wastewater Rate Study
- **Santa Ana Watershed Project Authority** (CA) – Inland Empire Brine Line Rate Model, Inland Empire Brine Line Reserve Policy Study
- **Santa Clarita Valley Water Agency** (CA) – Water Capacity Fee Study
- **Santa Rosa Plain, Sonoma Valley, & Petaluma Valley Groundwater Sustainability Agencies** (CA) - Groundwater Sustainability Agency Fee Analysis and Rate Setting Services
- **Scotts Valley Water District** (CA) – Water and Recycled Water Rate Study
- **South Mesa Water Company** (CA) – Water Rate Study and Connection Fee Update
- **City of Simi Valley/Ventura County Waterworks District No. 8** (CA) - Water Rate Study
- **City of Sonoma** (CA) – Water Rate Study
- **City of Thousand Oaks** (CA) – Water and Wastewater Cost of Service and Financial Plan Studies
- **City of Ventura** (CA) – Water and Wastewater Rate Study, Water and Wastewater Annual Financial Plan Updates, Water Net Zero Fee Study
- **Victor Valley Wastewater Reclamation Authority** (CA) - Sewer Rate and Connection Fee Study
- **City of Watsonville** (CA) – Utility Enterprise Rate Study