MARINA COAST WATER DISTRICT

Comprehensive Water, Wastewater, and Recycled Water Rate & Fee Study with a Cost Allocation Plan

PROPOSAL | JUNE 2017

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Engineers...Working Wonders With Water®

TITLE PAGE

MARINA COAST WATER DISTRICT

PROPOSAL FOR FEE STUDY AND OPTIONAL COST ALLOCATION PLAN

REQUEST FOR PROPOSAL'S SUBJECT:

Comprehensive Water, Wastewater, and Recycled Water Rate &

Fee Study with a Cost Allocation Plan

FIRM NAME: Carollo Engineers, Inc.

CONTACT PERSON: Pierce Rossum

3150 Bristol Street, Suite 500

Costa Mesa, CA 92626

(714) 593-5100 | prossum@carollo.com

DATE: 6/12/2017

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2700 Ygnacio Valley Road, Suite 300, Walnut Creek, California 94598
P. 925.932.1710 F. 925.930.0208

June 12, 2017

Ms. Kelly Cadiente, *Director of Administrative Services*
Marina Coast Water District
11 Reservation Road
Marina, CA 93933

Subject: Proposal to Provide Comprehensive Rate & Fee Study with a Cost Allocation Plan

Dear Ms. Cadiente:

Since the last study, the California water rate environment was significantly altered. In April 2015, in response to the on-going drought, the State Water Resources Control Board issued a 25-percent conservation mandate and an adverse ruling on the San Juan case was received. In a time of increasing litigation and water demand challenges, it is critical that the Marina Coast Water District (District) selects a team with not only proven utility finance and engineering expertise, but a firm understanding of the District mission and community stakeholders. Carollo Engineers (Carollo) is not only a leader in cost-of-service rate setting, but also possesses the knowledge, resources, and capabilities to provide the engineering backstop required to support this complex undertaking.

By carefully addressing several key issues and challenges, your study will provide a cohesive roadmap for the equitable recovery of costs from system users. MCWD's specific issues and challenges include:

- Understanding the impacts of the recent Proposition 218 and 26 court cases, and how District can continue to achieve customer equity through its rates.
- Communicating and addressing future fiscal, operational, and capital impacts and how continued and on-going conservation measures impact revenues and expenditures.
- Defining overhead costs and how to adequately allocate and appropriately recover costs from each enterprise fund.
- Providing that the entire rate-setting process is clearly communicated and presented to the community and key stakeholders.

We have recently addressed these issues throughout California, including Irvine Ranch Water District and South Coast Water District, and the City of San Francisco. We are pleased to submit this proposal as we view this Study as a continued partnership with the District, the District Board, Fort Ord Reuse Authority (FORA), and the local community. We are committed to finish the Study on time, and at the completion of this Study, we trust that you will move forward with confidence that the Study will provide a long-range financial roadmap, supporting the District's programs and reflecting the community values. Should you have any questions in regard to this proposal, please contact us at (925) 932-1710.

This proposal is firm and will be valid for 90 days from the due date.

Sincerely,

CAROLLO ENGINEERS, INC.

Lou Carella
Principal-in-Charge

Pierce Rossum
Project Manager

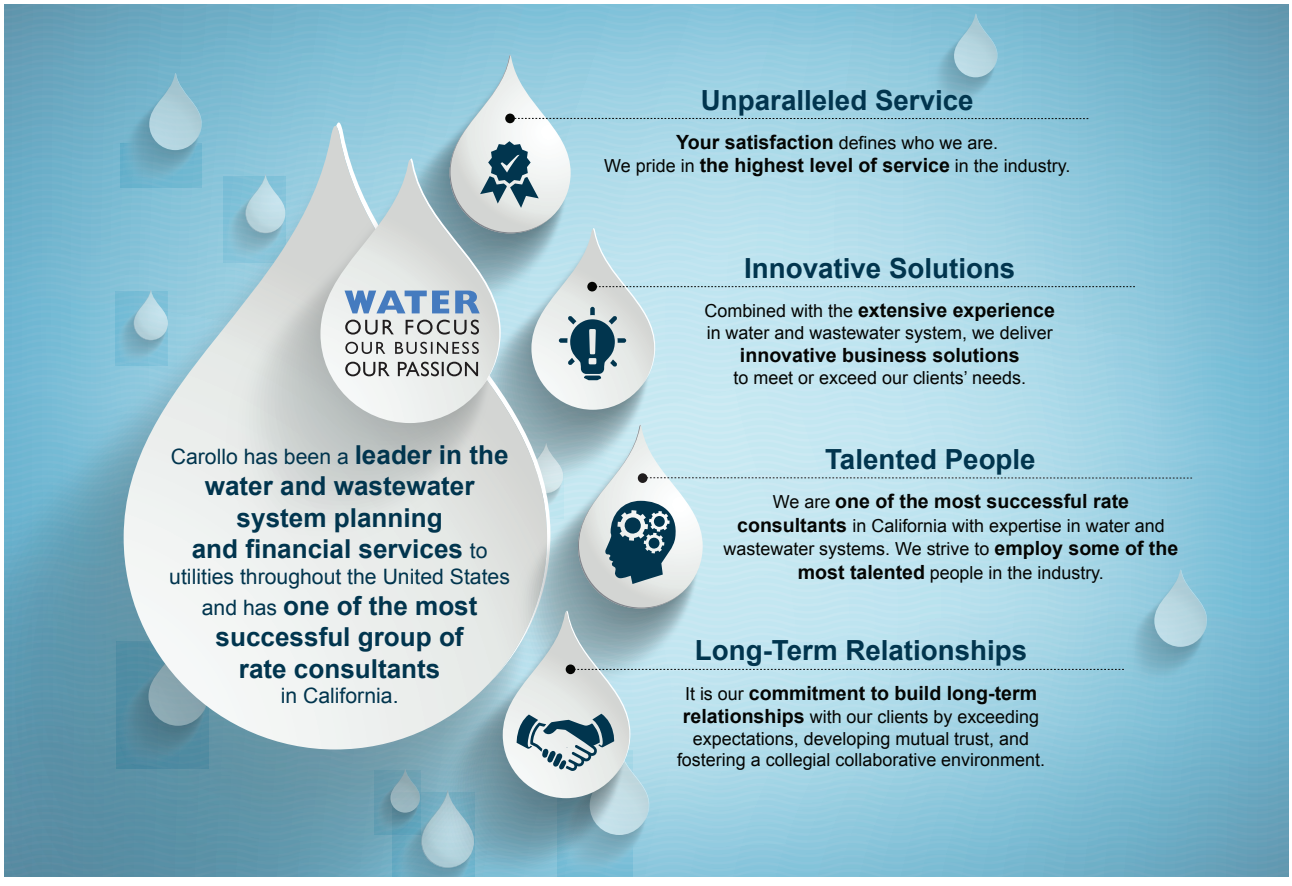
QUALIFICATIONS OF THE FIRM

National Water and Wastewater Experts

Carollo is the nation's largest environmental engineering firm specializing exclusively in the planning, design, and construction of water and wastewater facilities. Since 1933, Carollo has successfully completed more than 20,000 projects for public sector clients. Carollo is currently ranked within *Engineering News-Record's* (ENR) top 100 design firms and among the top firms for water and wastewater treatment plant design.

Water-Related Rate Study Leaders

For 84 years, Carollo has provided water and wastewater system planning and financial services to utilities throughout California and the United States. Over the past 5 years, Carollo has become one of the most successful and largest rate consultants in California. Collectively, the individuals assigned to manage and deliver this project have provided financial planning services for more than 300 utilities, including Orange County Sanitation District, Inland Empire Utilities Agency, San Francisco Public Utility Commissions, and Sacramento Regional County Sanitation District. We have successfully completed and delivered projects to clients with service area populations ranging in size from several hundred to 4 million residents. Our comprehensive financial studies for public agencies include financial modeling, cost allocations, and rate and fee developments.



The elements of Carollo BSG's core character move us toward our goal of delivering innovative, cost-conscious, and superior water-related business solutions to our clients.

Carollo Business Solutions Group

To achieve success in the cost-conscious and results-driven modern utility market, it is important for utilities to provide creative technical solutions executed within the context of sound business practices. Combined with the technical expertise in water and wastewater systems, the Business Solutions Group (BSG) has been successfully helping its clients like no other consultant can in the industry. The BSG works with utility managers to effectively administer business operations with creative solutions to evolving challenges. As a leading environmental consulting firm specialized in the utility market, our experts understand the unique hurdles that agencies face. The solutions must be executed within the context of sound, innovative business practices to be successful in the competitive and results-driven utility market. Our goal is to provide you with the information and advice to help you successfully implement the best solutions to fit your needs.

The BSG is a team of professionals with proven and practical experience in delivering innovative business solutions tailored to each client's needs. We provide a broad range of services in addition to rate studies. Our services are grouped into the following disciplines:

- Finance, Funding, and Economic Sustainability.
- Asset Management.
- Strategy and Business Case Evaluations.
- Information Management.
- Organizational Development.
- Operations and Maintenance Management.

Our mission is clear: we help our clients navigate their utility into the future with resiliency, efficiency, sustainability, and equity.

Location of Primary Office

Carollo currently maintains 42 offices in 17 states with more than 960 employees throughout the United States. Carollo's work on this project will be managed from Carollo's Walnut Creek office with support provided by others throughout the company as required.

Our Walnut Creek office is home of more than 80 professional, technical, and administrative staff and is located in:

2700 Ygnacio Valley Road, Suite 300
Walnut Creek, CA 94598

REFERENCES

Many firms can conduct a rate study or/and cost allocation. However, this study requires a consulting team that will partner with District staff, building on the internal knowledge and expertise. This team must also be industry leaders, have experience working with regional agencies, and have demonstrated the ability to clearly communicate complex issues to boards and public stakeholders.

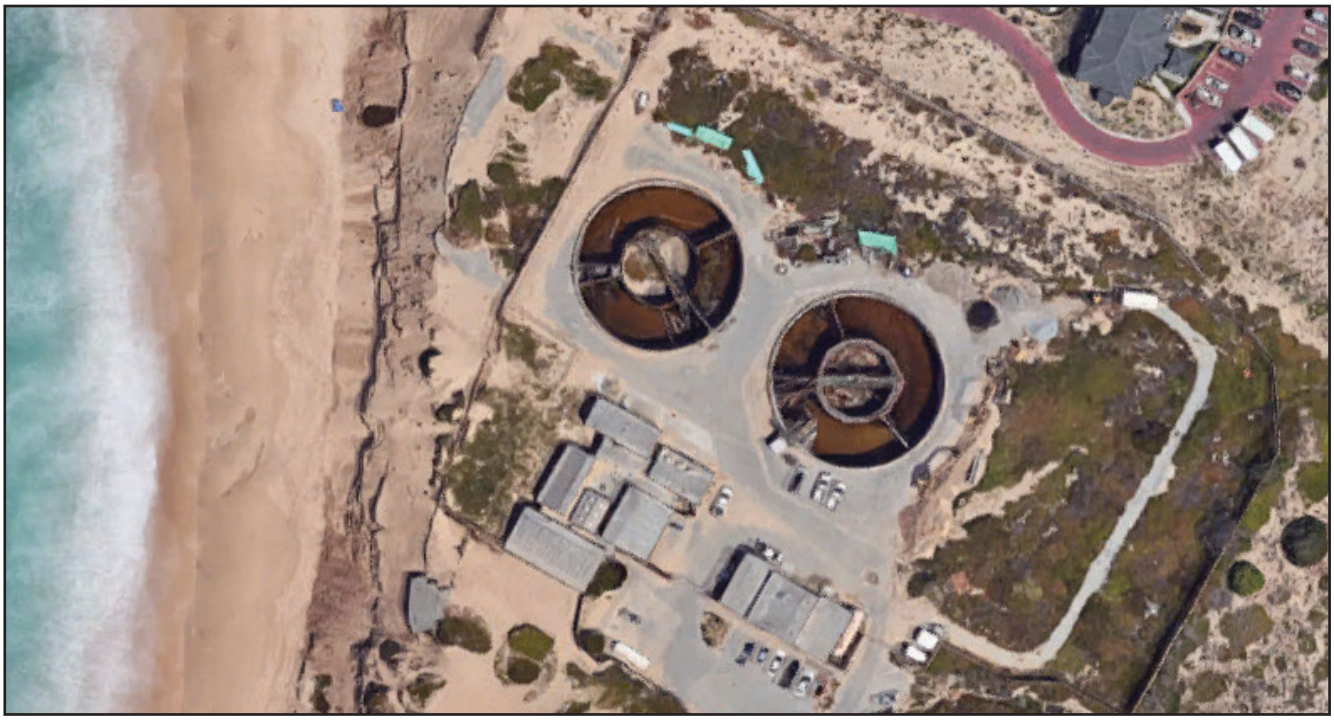
Comprehensive Financial Planning Experience

Our combined financial and engineering expertise provides us with the unique ability to efficiently allocate rates in a fair and equitable way, thus reducing potential Propositions 26 and 218 concerns. Our technical expertise, paired with proven financial strategies, allows us to anticipate and meet the specific objectives for this study. While not a complete list, the matrix on the following page demonstrates the breadth and depth of our financial services expertise.

On the following pages, we have provided references of clients for whom we have completed similar projects (rate and fee study, and cost allocation plan) within the last 2 years. We take pride in the continuing relationships we have developed with our clients. We encourage you to contact our references who will be happy to attest to the quality of service and responsiveness provided by our team members on similar projects.

Having successfully performed rate studies and financial planning for utilities of all sizes while undertaking complex legal and uncertain demand challenges, **Carollo has become one of the largest and most successful rate consultants in California.** Combined with the technical expertise, Carollo has provided its clients **with added confidence in the rate studies that will provide long-term support for the District and its community.**

	Capital Planning	Capital Funding Strategy	Cost-of-Service Rate Structure Analysis	Revenue Requirements	Fiscal Policy Review	Connection/ Impact Fee			Financial Modeling		Bond Coverage Evaluation		Stakeholder Involvement/ Public Outreach	
City of Carlsbad, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Chula Vista, CA	●	●	●	●	●	●	●	●	●	●		●	●	●
City of Del Mar, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Las Vegas, NV	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Reedley, CA	●	●	●	●								●	●	●
City of Los Angeles, CA	●	●	●	●	●	●	●	●	●	●		●	●	●
City of Modesto, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Oceanside, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Omaha, NE	●	●		●	●	●	●	●	●	●	●	●	●	●
City of Portland, OR	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Lindsay, CA			●	●					●		●	●		
City of Riverside, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Sacramento, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of San José, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Scottsdale, AZ	●	●	●	●	●	●	●	●	●	●	●	●	●	●
City of Seattle, WA	●	●		●	●	●	●	●	●	●	●	●	●	●
City of Simi Valley, CA	●	●	●	●	●	●	●	●	●	●	●	●		●
City of Upland, CA			●	●	●	●	●	●	●	●	●	●		●
City and County of Honolulu, HI	●	●		●	●	●	●	●	●	●		●	●	●
Clean Water Service, OR	●	●	●	●	●	●	●	●	●	●	●	●	●	
Delta Diablo Sanitation District, CA	●	●		●	●	●	●	●	●	●	●	●		
Eastern Municipal Water District, CA	●	●	●	●	●	●	●	●	●	●		●	●	●
El Paso Water Utilities Public Service Board, TX	●	●	●	●	●	●	●	●	●	●	●	●	●	●
El Toro Water District, CA			●	●								●		
Inland Empire Utilities Agency, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Irvine Ranch Water District, CA	●		●	●	●	●	●	●	●	●	●	●		
King County, WA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Marin Municipal Water District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Marina Coast Water District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Monte Vista Water District, CA			●	●	●	●	●	●	●	●	●	●		●
Orange County Sanitation District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Palmdale Water District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sacramento County Department of Water Resources, CA	●	●	●	●	●	●	●	●	●	●		●	●	●
Sacramento Regional County Sanitation District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
San Diego County Water Authority, CA				●	●	●	●	●	●	●	●	●	●	●
San Francisco Public Utility Commission, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Santa Ana Watershed Project Authority, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Santa Margarita Water District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●
West County Sanitation District, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	
Western Riverside County Regional Wastewater Authority, CA	●	●	●	●	●	●	●	●	●	●	●	●		●



Marina Coast Water District, CA

Water, Sewer, and Recycled Water Financial Plan and Rate and Fee Study

Number of Years as Customer

11 years, last rate study performed in 2013.

Reference

Ms. Kelly Cadiente, *Director of Administrative Services*
11 Reservation Road, Marina, CA 93933
Ph: (831) 883-5950 | Fax: (831) 384-0197 | E: kcadiente@mcwd.org

Marina Coast Water District (District) hired Carollo to develop a comprehensive and tailored financial plan to provide a cost-of-service basis for defensible rates and capacity charges for the water, wastewater, and recycled water operations.

Carollo evaluated the existing rates and established the revenue requirements to meet the District's short- and long-term objectives, including operating and capital costs, and possible regulatory changes. In collaboration with the District staff, Carollo identified specific customer classes based on calculated demand factors and allocated the cost to each class.

At the end of the study, having worked with the staff, Board, and FORA, Carollo was able to provide recommendations and specific modifications to the existing rate structure to achieve defensible and equitable rates achieving the District's specific needs.

San Francisco Public Utilities Commission, CA
Utility Rate Study & Cost Allocation Plan

Number of Years as Customer
24 years, last rate study completed in 2014 and were reselected to prepare 2019 rates.

Reference
Mr. Crispin Hollings, *Director of Financial Planning*
525 Golden Gate Avenue, San Francisco, CA 94102
Ph: (415) 487-5235 | Fax: (415) 487-5258 | E: chollings@sfwater.org

San Francisco Public Utilities Commission (SFPUC) has aggressively sought to implement environmentally and socially conscious programs, while undertaking critical capital investments to maintain long-term system reliability. In upcoming years, SFPUC requires significant increases in rate revenue due to major improvements of the existing system to maintain long-term system reliability.

A detailed cost-of-service analysis and CAP evaluated expenses including O&M, administration costs, and existing and future debt service related to construction of facilities. These costs were categorized according to their benefit and attributed to various customer classes, based on existing billing data and demand patterns. As part of the study, Carollo developed a new connection fee. Based on the resulting analysis, Carollo recommended the water connection fee be imposed solely based on meter size for all customer classes. Similarly for wastewater, Carollo recommended modifications to the existing structure to provide streamlining and improved clarity.

After determining the annual revenue requirement, Carollo developed and evaluated multiple rate recovery alternatives along with acceptable levels of revenue increase, as discussed with SFPUC and the Rate Fairness Board, before ultimately delivering recommendations. Throughout this process, it was important that members involved in public outreach were actively engaged. The proposed water and wastewater rates were designed to provide sufficient funding of current annual costs in addition to the roughly $7.5 billion, multi-year Water and Sewer System Improvement Plans.

San Diego County Water Authority, CA

Cost-of-Service Rate and Charge Study & Cost Allocation Plan Review

Number of Years as Customer

25 years, have worked with the Authority over the past 5 years performing annual rate and cost of service review.

Reference

Mr. David Shank, *Financial Planning Manager*
4677 Overland Avenue, San Diego, CA 92123
Ph: (858) 522-6676 | Fax: (858) 522-6568 | E: dshank@sdcwa.org

San Diego County Water Authority (SDCWA) hired Carollo to develop an independent rate model as well as to review their existing cost-of-service methodology to confirm the appropriateness of the existing structure, and for compliance with AWWA cost-of-service standards and industry best practices. Additionally, we were requested to compare the rates and charges with Board policies and California legal requirements.

Carollo established the revenue requirement, allocated it to rate categories, and determined the rates to equitably collect these costs. Based on independent review, we determined that the amount of money reasonably anticipated to be generated through SDCWA's proposed water rates and charges, when combined with other SDCWA revenues, was reasonable to recover the costs of SDCWA's activities.

Ultimately, Carollo determined that the existing methodology yields an appropriate and reasonable method for allocating costs. The manner in which each of the rates and charges were allocated to SDCWA's member agencies bore a fair, reasonable, and logical relationship to each member agency's burdens on or benefits from SDCWA services.

South Coast Water District, CA
Water, Sewer, and Recycled Water Rate Study & Cost Allocation Analysis

Number of Years as Customer

25 years, have developed rates for the District over the past decade.

Reference

Ms. Carolyn Rathbone, *Chief Financial Officer*
31592 West Street, Laguna Beach, CA 92651
Ph: (949) 499-4555, x3151 | Fax: (949) 499-4256 | E: crathbone@scwd.org

Seeking to review the South Coast Water District's water, sewer, and recycled water rates, the District engaged Carollo to perform a comprehensive cost-of-service and rate design study. The review addressed recent changes to the California legal environment, notable the San Juan Decision, as well as mandates from the State to cut water use by 25 percent.

Through an extensive education and public input workshop process, Carollo developed various cost-of-service rate design alternatives to balance the District's competing objectives. Carollo held nine public workshops with the Board and community to develop rates in a open, transparent, and communicative process.

Facing declining revenues (due to the drought and conservation mandate) and a need to develop resilient revenues, Carollo developed a innovative rate design to provide greater fixed revenues while still providing an incentive to conserve. Based on the design and utilization of the system, a Demand Charge was developed to align the cost to carry/support capacity year-round based on a customer's peak demand from the system.

Carollo's keen understanding of engineering and finance, also provided cost based refinements to the District's Recycled Water and Sewer Rate. At the end of the process, the Board, Staff, and community unanimously approved and supported the updated rate analysis.

SOUTH COAST  **WATER DISTRICT**

July 27, 2016

Mr. B. Narayanan
Chief Executive Officer
Carollo Engineers, Inc.
2700 Ygnacio Valley Road #300
Walnut Creek, CA 94598

RE: **Letter of Appreciation**

Dear Mr. Narayanan:

In September of this year, South Coast Water District undertook a Cost of Service/Rate Design Study with your firm. Mr. Pierce Rossum was assigned to work with our District.

We cannot say enough about the preparation, quality, and professionalism that Pierce displayed during the entire study. Pierce was efficient at coming up to speed with the District's current rate model, requesting customer and financial information, as well as meeting with us to identify our concerns regarding the District's current rate structure.

Board Workshops, nine of them, were run as a learning environment for the District and the public. Pierce was always prepared and able to present the material for the workshop in a way that everyone could understand. He responded to questions from Directors with ease and was always respectful of any differences of opinion that came up. Pierce also answered all questions from public attendees in a friendly and direct manner and did an excellent job in representing the District.

At the Board of Directors meeting held on June 23, 2016, the District held a public hearing for the approval of the rates. Five years of rates and the Cost of Service Report were approved unanimously.

On behalf of our District, we want to express our deep appreciation for the great work that Pierce did for South Coast Water District - Outstanding Performance!

Mailing Address: *P.O. Box 30205, Laguna Niguel, CA 92607-0205*
Street Address: *31592 West Street, Laguna Beach, CA 92651*
Fax: *(949) 499-4256* ***Phone:*** *(949) 499-4555*

Sincerely,

Wayne Rayfield
President

Rick Erkeneff
Vice President

Richard Dietmeier
Director

Dennis Erdman
Director

William Green
Director

Andrew Brunhart
General Manager

cc: Mr. Kyle Rhorer
Vice President
Strategic Lead – Program Management Group

Mr. Robb Grantham
Vice President
Business Solutions Group

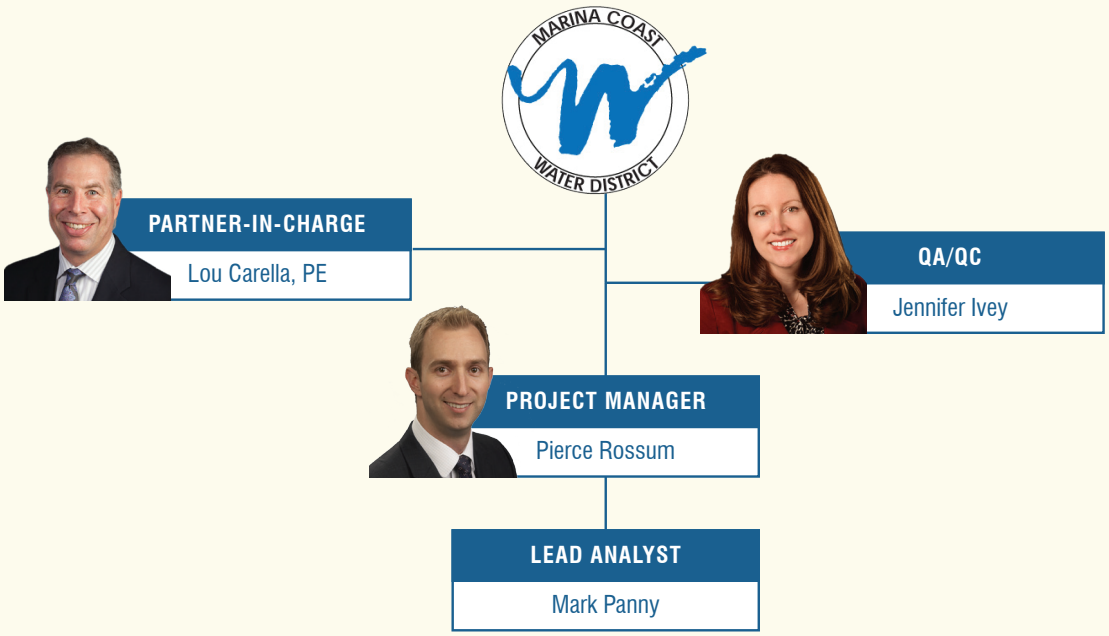
QUALIFICATIONS OF PROFESSIONAL STAFF

The success of this project lies in the experience and abilities of the project team. A successful project team must demonstrate practical and relevant experience in all of the technical aspects of the project, a well-conceived work plan and project approach, and a commitment to the project goals. We have dedicated a team to your project that will fulfill these requirements in totality. They possess full qualifications to accomplish both the Comprehensive Rate Study and Cost Allocation Plan.

Carollo has a depth of resources few other firms can match. Our team provides not only quality management and technical expertise, but also personal attention and the resources required to successfully complete the Water, Wastewater, and Recycled Water Rate and Fee Study with a Cost Allocation Plan.

More importantly, the proposed Principal-in-Charge, Lou Carella, and Project Manager, Pierce Rossum, have worked together on the District's previous rate study. The project demonstrated their technical abilities to deliver a successful program, but also the teamwork to deliver them in the most efficient and timely manner.

Upon receipt of the notice-to-proceed, our team is ready to begin work immediately with the water rate and complete it in an expedited manner, while meeting your needs. The organization chart presented below illustrates our proposed team. Each member was carefully selected based on his or her technical expertise and knowledge of your system and will not be reassigned without prior written approval from the District. We have included resumes at the end of this



TRUSTED EXPERTISE. PROVEN RESULTS.

Our team will be an extension of your staff and will work in close collaboration with you to peer-review the existing cost-of-service and rate design analyses, and develop comprehensive recommendations following our internal review and collaborative process.

section. Key personnel will not be substituted without written approval of the District.

Subconsultants

Carollo will not be using any subconsultants for this project.

Pierce Rossum
PROJECT MANAGER

Within Carollo's Business Solution Group (BSG), Pierce serves as the Financial Service Lead. Pierce has 10 years of experience and has performed over 75 financial planning studies. He brings a depth of knowledge and expertise in Propositions 218 and 26 compliance, rate structure design, and a strong financial modeling background.

Pierce also serves as the Chair of the Financial Management Committee for American Water Works Association (AWWA) CA-NV. He has provided rate consulting services to many of your peer agencies, as well as those with budget based rate structures. In addition to the leading the successful 2013 MCWD rate study, Pierce has led numerous agency's financial, cost-of-service, and rate design studies including San Diego County Water Authority (SDCWA), Irvine Ranch Water District (IRWD), and most recently South Coast Water District (SCWD). His economics and statistics background, as well as development of previous rate analyses work, provides a unique analytical and rational framework from which he can draw. The practical implementation of this understating (multivariate statistics) helps him understand the relationships between variables and their relevance to the actual problem being studied, such as water rates. His approach to developing financial plans and rate structures will help promote the overall defensibility of any recommended rate adjustment and the District's ownership of final decisions that can be easily communicated to the public.

As Project Manager, Pierce will manage the day-to-day aspects of the project ensuring it is within budget, on schedule, and effectively meets the District's objectives. He will also lead the project team in analyses and preparation of project deliverables. Piece will maintain communication with District staff during the work and will maintain the budget, schedule, and commitment of resources. He will not be reassigned without prior written approval from the District.

Lou Carella, P.E.
PRINCIPAL-IN-CHARGE

As a senior vice president with Carollo, Lou has 36 years of extensive experience in the planning and design of large water supply, treatment, and distribution projects. His experience includes planning studies for development of new water supply, treatment and transmission systems, as well as the evaluation and modification of existing systems.

More importantly, Lou has worked on the Design of the Recycled Water Distribution System and Water, Wastewater, and Recycled Water Financial Plan and Rate and Fee Study for the District and has thorough understating of the District's system.

As Principal-in-Charge, Lou will have ultimate responsibility for this project. He will participate in all contract matters, monitor procedures for quality control, and monitor the progress of the project to make sure the work is completed on schedule and within budget.

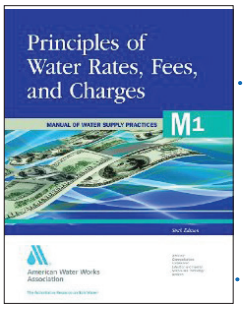
Lou is familiar with District staff through his recent projects: Design of the Recycled Water Distribution System and Water, Wastewater, and Recycled Water Financial Plan and Rate and Fee Study. In other recent and relevant work, Lou was project manager for the engineering effort associated with the development of the Pajaro Valley Water Management Agency (Agency) Basin Management Plan.

Jennifer Ivey
QA/QC

Jennifer is a vice president with Carollo with 18 years of extensive experience in civil and environmental engineering design projects as well as numerous multi-year financial planning, impact fee, bond feasibility, and cost of service, rate and charge studies throughout Texas and the U.S. Her combined financial and engineering expertise crosses over to provide accurate financial results based on sound engineering and cost causation foundation.

Jennifer is active in industry associations including the AWWA National Rates and Charges Committee and was a contributing author for AWWA's updated *Principles of Water Rates, Fees, and Charges M1 Rates Manual*.

Jennifer will bring her knowledge and expertise to check the accuracy of the review and to help deliver the rate study reflect the District's long-term goals and needs.



Jennifer was a contributing author in the industry standard, ***Principles of Water Rates, Fees, and Charges***.

Mark Panny
LEAD ANALYST

Mark is a financial analyst in Carollo's BSG with 5 years of extensive experience in cost-of-service analysis and rate design for water and wastewater utilities. He also has significant experience in statistical analysis for water usage planning. Mark is specialized in data management, financial analysis, and rate setting. He has contributed to a variety of financial and engineering planning projects for municipal utilities throughout California and across the U.S., including Los Angeles Bureau of Sanitation, City of Boynton Beach (FL.), Eastern Municipal Water District (EMWD), Monte Vista Water District (MVWD), IRWD, IEUA, Marin Municipal Water District, and Orange County Sanitation District (OCSD).

In addition, Mark has led the analysis on over a dozen cost-of-service studies and has developed data management and analysis plans for a number of agencies and municipalities. This experience will be utilized to accurately and efficiently review your data, and generate the insights needed to support this project and its recommendations.

As Lead Analyst, Mark will support Pierce and lead the team with data processing, financial analysis, capital funding, and rate setting alternatives.

Pierce Rossum

PROJECT MANAGER

FIELD OF EXPERTISE/WORK EXPERIENCE

With 10 years of experience, Pierce Rossum has served as project manager or lead financial consultant for over 50 cost-of-service studies. He brings a depth of knowledge and expertise in Proposition 218 and 26 compliance, rate structure design, and brings strong financial modeling, statistical, and economic background. His previous work developing financial and economical models has made him keenly aware that one rational decision cannot be made without affecting another. This approach helps promote the overall defensibility of any cost-of-service recommendation, recommended rate adjustments, and an agency's ownership of final decisions that can be easily communicated to the public.

YEARS OF EXPERIENCE: 10

EDUCATION

- BA Economics, Claremont McKenna College, CA, 2008
- BA Psychology, Claremont McKenna College, CA, 2008

RELEVANT PROJECT EXPERIENCE

- Project manager for the Water, Wastewater, and Reclaimed Water Rate Study and Financial Plan for the Marina Coast Water District, CA. Each of the four utilities was individually analyzed for its ability to sufficiently fund operations and maintenance, capital, reserves, and debt service. Cost centers were analyzed to provide equity between customers and the utilities. Despite large variability in potential customer growth and conservation, financial projections were specifically analyzed to ensure sufficient revenues and customer equity.
- Lead financial consultant for San Francisco Public Utilities Commission, CA, Utility Rate Consulting. Reviewing SFPUC's financial forecasts models and fiscal policies to update cost-of-service rates and charges. Developing analysis to separate costs of wastewater and stormwater charges within SFPUC's combined system to implement new stormwater charge in compliance with Prop 218.
- Project manager for the Water, Sewer, and Recycled Water Rate Study for the South Coast Water District, CA. Carollo completed a comprehensive cost-of-service and rate design study. The review addressed recent changes to the California legal environment, notably the San Juan Decision, as well as mandates from the State to cut water use by 25 percent. In addition, Carollo held nine public workshops with the Board and community to develop rates in an open, transparent, and communicative process.
- Lead financial consultant for San Diego County Water Authority, CA, CY2014 Cost-of-Service Rate and Charges Study. The study to analyzed and confirmed the appropriateness and legality of the water rates and charges methodology and calculated the CY2014 water rates and charges. Responsible for the development of an independent rate model and reviewed SDCWA's existing cost-of-service methodology for compliance with the AWWA cost-of-service standards and industry best practices.
- Project manager for the Water, Sewer, and Recycled Water Rate Study for the South Coast Water District, CA. Carollo completed a comprehensive cost-of-service and rate design study. The review addressed recent changes to the California legal environment, notably the San Juan Decision, as well as mandates from the State to cut water use by 25 percent. In addition, Carollo held nine public workshops with the Board and community to develop rates in an open, transparent, and communicative process.

- Technical advisor for 2016 Water and Recycled Water Cost-of-Service Study for the City of Carlsbad, CA. Carollo performed a cost-of-service and rate design for the City's water and recycled water system. In addition to the main financial tasks for a rate study, Carollo also helped the City develop a wholesale recycled water rate, updating its water and recycled water connection fees, and identifying any lost revenue situations concerning water leaks and fire protection meters.
- Project manager for a Comprehensive Cost-of-Service/Rate Study for the Padre Dam Municipal Water District, CA. Pierce led the project team to conduct a comprehensive potable water, recycled water, and wastewater Cost-of-Service Study (COSS) and to derive new utility rates and charges. The study provided an independent assessment of the District's cost to provide water, recycled water and wastewater services and to properly allocate those costs to the appropriate rates and charges based on sound cost-of-service principles.
- Lead financial consultant for the Cost-of-Service Rate Analysis for Irvine Ranch Water District, CA. He performed a detailed review of the agency's existing budget-based water, sewer, and recycled water rates. He was responsible for the development of an independent rate model and reviewed existing cost-of-service methodology for compliance with Prop 218 and industry best practices.
- Lead financial consultant for Orange County Sanitation District, CA, Wastewater Rate Study. Responsible for the development of a financial and rate model that updated and analyzed OCSD's cost-of-service wastewater rates.
- Project manager for the City of Arcadia, CA, Water and Sewer Rate Study. Analyzed the impact of potential water demand forecasts and developed an integrated source of supply analysis to reflect the different costs associated with various sources of supply. Created a budget-based rate structure, which integrated the source of supply analysis to reward customer conservation and water use efficiency.
- Financial support and technical advisor for the Sewer Rate and Fee Study for the Sacramento Regional County Sanitation District, CA. Provided additional review and played a role of "devil's advocate" to generate a thorough assessment of the findings prior to customer and stakeholder review.
- Project manager for Financial Master Plan for the Monte Vista Water District, CA. Carollo developed a 30-year financial plan and rate model for the District. Through an a collaborative rate setting process, Carollo provided the District with a user-friendly and efficient financial planning model to forecast short- and long-term impacts of capital, water supply, and operating needs. Carollo also developed updated budget-based rates and innovative demand management rates (drought rates) to mitigate financial risk.
- Project manager for the Cost-of-Service and Engineer's Report for the Pajaro Valley Water Management Agency, CA. Carollo developed a financial and rate model that updated and analyzed the Agency's pumping augmentation and delivered water charges. Carollo also facilitated monthly collaborative meetings with an Ad Hoc Finance Committee to prepare rate recommendations and designed a test program to implement time-of-use rates for recycled water users, which are designed to reduce pumping and increase recycled water usage.
- Project manager for a Water Rate Study for the City of Upland, CA. The City had been utilizing one-time revenues to offset revenue shortfalls from rates. In addition, the City had not increased its fixed customer charge in over 20 years. Water rates were analyzed and developed to provide sufficient revenues, which increased revenue predictability through an increased fixed charge and increased customer equity between ratepayers.

- Project manager for development of a Water Supply Fee for the Palmdale Water District, CA. Forecasting significant future growth, the calculated water supply fee will fund capital and acquisition costs of future water supplies. To limit possible double counting, existing water rates and connection fees were reviewed to account for existing water supply revenues.
- Project manager for development of a recycled water financial plan and recycled water rates for the Palmdale Recycled Water Authority, CA. As part of a Recycled Water Master Plan and creation of a new utility, Carollo developed a preliminary cost-of-service analysis and financial plan to analyze various financial scenarios and rate implications of expanding the recycled water system.
- Financial support and technical advisor for the Sewer Rate and Fee Study for the Sacramento Regional County Sanitation District, CA. Provided additional review and played a role of "devil's advocate" to generate a thorough assessment of the findings prior to customer and stakeholder review.
- Lead financial analyst for Financial Support and Capital Funding Strategy for the Sewerage Agency of Southern Marin, CA. Carollo developed a model that incorporated the Agency's growth projections with its financial realities and fiscal policies in order to forecast required revenue increases. Multiple forecasts were developed in order to analyze the benefits of utilizing either municipal bonds or state revolving fund loans.
- Technical advisor for the Comprehensive Rate Study for the City of Oceanside, CA. Carollo developed near- and long-term financial forecasts, updated capital facilities charges, and analyzed retail and wholesale rate structures for water, wastewater, and recycled water for the City. The project included a Citizen's Advisory Committee process designed to provide an overview of the facilities master plan and financial and rate program, facilitate open discourse, and garner buy-in from the Utilities Commission and Council.
- Technical financial advisor for the Comprehensive Master Plan for the Rodeo Sanitary District, CA. Provided oversight and quality assurance of a financial model used to analyze the impacts of proposed capital improvements on finances and rates.
- Lead financial analyst for the Recycled Water Feasibility Study for the Sewerage Agency of Southern Marin, California. Carollo developed a rate and funding model to analyze various capital and timing alternatives.
- Financial lead for the Recycled Water Feasibility Study for the Marin Municipal Water District, California. Carollo developed a rate and funding model to analyze various recycled water capital alternatives.
- Lead financial analyst for the Recycled Water Feasibility Study for the City of Mountain View, California. Carollo developed a rate and funding model to analyze various capital and timing alternatives.
- Lead financial analyst for the Desalination Feasibility Study for the City of Santa Barbara, California. Carollo developed a rate and funding model to analyze various capital and timing alternatives.

Lou Carella

PRINCIPAL-IN-CHARGE

FIELD OF EXPERTISE/WORK EXPERIENCE

As a senior vice president with Carollo, Lou has 36 years of extensive experience in the planning and design of large water supply, treatment, and distribution projects. His experience includes planning studies for development of new water supply, treatment and transmission systems, as well as the evaluation and modification of existing systems.

YEARS OF EXPERIENCE: 36

EDUCATION

- BS Civil Engineering, Santa Clara University, 1980

RELEVANT PROJECT EXPERIENCE

- Project director for the Water, Wastewater, and Reclaimed Water Rate Study and Financial Plan for the Marina Coast Water District, CA. Each of the four utilities was individually analyzed for its ability to sufficiently fund operations and maintenance, capital, reserves, and debt service. Cost centers were analyzed to provide equity between customers and the utilities. Despite large variability in potential customer growth and conservation, financial projections were specifically analyzed to ensure sufficient revenues and customer equity.
- Project manager for design of the Marina Coast Water District Recycled Water Distribution System in Marina, CA. The project included design of approximately 71,000 linear feet of 4-inch through 20-inch ductile iron and PVC pipe, a 4,500-gpm booster pump station, and a 1.5-MG prestressed concrete reservoir and customer turnouts. The project had an aggressive schedule for the first construction package, requiring that design be completed in five months. Additional project challenges included determining requirements for five jurisdictional agencies and coordination with ongoing development projects within the City of Marina.
- Project manager for the engineering effort associated with the development of the Pajaro Valley Water Management Agency (PVWMA) Basin Management Plan. Worked with the Agency to develop the best management practices (BMP) and environmental impact report (EIR), and provide an approach and schedule that allowed for concurrent BMP approval and EIR adoption by the PVWMA Board of Directors. This was accomplished by coordinating the BMP and EIR preparation through a parallel, integrated, and iterative public process. This tool was used to identify the relationship between the development of technical information and documentation, and interactions with various levels of the community process.
- Principal-in-charge for a Cost-of-Service Study for the Pajaro Valley Water Management Agency (PVWMA), CA. Worked with PVWMA to update water charges and provide documentation to meet Proposition 218 requirements. Work included equitably allocating capital and operations costs to the appropriate customer base, linking projects implemented and services received, and providing Proposition 218 implementation support. The resulting report became the basis of rate increases and PVWMA's Proposition 218 election plans.
- Principal-in-charge for the County of San Luis Obispo, CA, Los Osos Wastewater project, in Los Osos, California. Work involved providing feasibility-level planning and preliminary design of a wastewater system that includes collection, treatment, solids handling, and treated effluent disposal. The feasibility study identified system configuration options and prioritized alternatives by identifying water resources and seawater intrusion mitigation potential. Work also included providing technical/public presentation support to the client for a Proposition 218 election for assessment of individual parcels to help pay for the project. The election passed with an 80-percent approval from the community.

Jennifer Ivey

QUALITY ASSURANCE/QUALITY CONTROL

FIELD OF EXPERTISE/WORK EXPERIENCE

Jennifer is a vice president with Carollo with 18 years of extensive experience in civil and environmental engineering design projects as well as numerous multi-year financial planning, impact fee, bond feasibility, and cost of service, rate and charge studies throughout Texas and the U.S. Her combined financial and engineering expertise crosses over to provide accurate financial results based on sound engineering and cost causation foundation.

Jennifer is active in industry associations including the AWWA National Rates and Charges Committee and was a contributing author for AWWA's updated *Principles of Water Rates, Fees, and Charges M1 Rates Manual*.

YEARS OF EXPERIENCE: 18

EDUCATION

- MBA Finance, Southern Methodist University, 2003
- BSCE Civil Engineering, University of Texas, Austin, 1998

RELEVANT PROJECT EXPERIENCE

- Project manager for the Water and Wastewater Rate Study for the City of Tempe, AZ. She led the team to complete annual cost of service and rate studies for the City's Utilities Department and prepare a financial model to forecast revenues and expenses for a 10-year study period. The team she led designed increasing block rate structure to recover water cost of service and class-based rate structure to recover sewer cost of service. She also evaluated multiple alternatives to make recommendation to City Management for most appropriate rate structure and updated Utility ancillary charges based on cost of providing services.
- Project manager for the Development Fee Analysis for the City of Tempe, AZ. She updated water and wastewater development fees in accordance with Arizona Revised Statute §9-463.05. The study included development of Land Use Assumptions, Infrastructure Improvements Plan and recommended maximum development fees.
- Project manager for the Utilities Rate and Fee Study for the Town of Castle Rock, CO. She managed study to develop ten-year financial plans and conduct cost of service analyses for water, wastewater, water resource, and stormwater utilities. Updated system development fees for water, wastewater and stormwater.
- Project manager for the Development Fee Study for the Town of Castle Rock, CO. She managed study to calculate maximum supportable capital development fees for police, fire, transportation, parks and recreation, and municipal services. In addition to capital development fees, calculated cost- based non-capital development fees.
- Project manager for the Water and Wastewater Cost of Service, Rate Design and Associated Financial Planning Services for the Oklahoma City Water Utilities Trust, OK. Managed study to develop cost of service rates and system development charges. Analyzed customer billing and financial data to determine revenue requirements. Allocated revenue requirements to functional categories and rate components to determine class cost of service. Study also included transitioning rates toward cost of service, presenting study findings and recommendations to stakeholders and training staff on use of financial planning and rate models.

Mark Panny

LEAD ANALYST

FIELD OF EXPERTISE/WORK EXPERIENCE

Mark Panny is a financial analyst in Carollo's BSG with a specialization in cost-of-service analysis and rate design for municipal utilities. He has expertise in demand and supply planning for water and wastewater municipal utilities and has experience conducting statistical analysis for water usage planning.

Mark has served as lead analyst on several projects, including cost-of-service studies and financial master plans for Eastern Municipal Water District, Irvine Ranch Water District, and Monte Vista Water District. He has overseen the development of financial models, directed water usage analysis, and prepared reports and presentations for public outreach. In addition, Mark used his data analysis background to help a number of water and wastewater agencies plan around California's current drought. He is assisting multiple utilities mitigate the impacts of the ongoing drought in California, developing revenue risk assessments and alternative demand based rates to be implemented in the event of continued conservation.

YEARS OF EXPERIENCE: 4

EDUCATION

- MEM Water Resources Management, Duke University, 2014
- BA History, Lafayette College, 2010

RELEVANT PROJECT EXPERIENCE

- Lead analyst on Cost-of-Service and Rate Design Study for Eastern Municipal Water District, California. He is developing a comprehensive cost allocation for EMWD based on the District's various sources of supply. He is also preparing a full analysis of the District's current customer usage patterns, and modeling customer impacts based on changes to EMWD's budget-based rate structure.
- Lead analyst on Cost-of-Service and Rate Design Study for Monte Vista Water District, California. He conducted data analysis on usage and financial trends for the District, and developed water budget allocations to help the District meet its state mandated conservation goals. He calculated baseline water rates, as well as additional stages of drought rates to be implemented during increasing levels of water shortage.
- Lead analyst on Rebate Program Review for Orange County Sanitation District, California. He analyzed several years of rebate applications received and processed by OCSD, and calculated new usage factors for all customer classes. Mark modeled the ongoing impact of the rebate program, considering the revenue risk and administrative burden, and developed recommendations for adjusting the program to address these issues.
- Analyst on Cost-of-Service and Rate Design Study for Riverside Public Utilities, California. He led the data analysis stage of the Study, processing over a decade of usage and billing records to identify demand trends and the appropriateness of the RPU's current rates and tiers.
- Analyst on Cost-of-Service and Rate Design Study for Irvine Ranch Water District, California. He conducted data analysis of usage and financial records spanning over multiple years. He developed financial and rate models to project future cash flows, perform cost-of-service analysis, and determine necessary water, wastewater, and recycled rates.
- Analyst on Water Rates and Connection Fee Study for Inland Empire Utilities Agency, California. He developed financial model for potable and recycled water supply systems, and provided cost-of-service analysis to determine the necessary rates for IEUA to collect from its member agencies.

APPROACH

Understanding of California Legal Environment	• Legal challenges (San Juan Capistrano) and political fallout (recent recall at YLWD) demonstrate challenges • Unlike some other firms, Carollo has not lost a case on the grounds of cost-of-service
Cost-of-Service Nexus	• Carollo's Irvine Ranch Water District (IRWD) study is recognized by State Resources Water Control Board as a Best Practice example in cost of service • Combined financial expertise & engineering perspective
Trusted & Tested Advisor	• This team has worked for 300+ agencies • Successful projects with Riverside, IRWD, San Francisco Public Utilities Commission, San Jose, Sacramento, and Los Angeles among others. • Development of District's Comprehensive Facilities Master Plan

In light of increasing legal scrutiny, unpredictable water demand forecasts, and increasing rate payer awareness, **Carollo provides a comprehensive team with a proven record in addressing the following elements and delivering the best possible results** to you.

The success of this upcoming project will build on our continued work with the District and our development of the 2013 Cost of Service Study. Along with proven and innovative financial expertise, our thorough understanding of your system gives us the advantage to better define a defensible cost-of-service with equitable user rates compared to other consultants.

Rates studies cannot be performed in a vacuum and equally cannot be blindly founded on industry standards. We have developed a scope of work that is tailored to your project needs. We will perform a full cost-of-service study to allocate and collect appropriate water, wastewater and recycled water costs from appropriate users. We will perform an extensive customer billing analysis to understand existing trends and to determine how demands may impact expenditures. We will also analyze expenditures based on functions, determined by an engineering analysis – not generic factors published in the M1 Manual.

Our financial expertise combined with our engineering perspective allows Carollo to take our analysis further and to provide our clients with detailed and supportable rates based on the functional design of the utility system. This approach ultimately provides equity and defensibility to the rate analysis. Once the analysis is completed, Carollo will work with the District to develop a successful implementation plan and assist in the initiation of the Proposition 218 process.

STUDY REQUIREMENTS

Carollo will evaluate the District's current rate structure for water and wastewater services, and evaluate other potential rate structures that might provide increased revenue stability utilizing equitable and defendable rates.

Based on the District's RFP and Carollo's understanding of the District's needs, Carollo will perform a full cost-of-service study to allocate water, wastewater, and recycled water costs and appropriately recover rate revenues tailored for the District, including the following:

- ☑ Demand and Financial Forecasting
- ☑ Short- and long-term cost recovery
  - ✓ Review of fiscal policies, including reserves, cash flow, and debt coverage requirements
- ☑ Separately identify portions of system revenues that fund water, wastewater, and recycled system operating costs
- ☑ Flexible and adaptive rate structure to account for:
  - ✓ Variable demands/production
  - ✓ Capital needs (R&R)
  - ✓ Legal compliance
  - ✓ Existing billing system
- ☑ Development of additional rate alternatives (at least one)
  - ✓ Alternatives will weigh the benefits of any proposed system improvements/replacements against the financial impacts on ratepayers and evaluate financing alternatives
  - ✓ Alternative rates will also account for the District's billing system's capabilities
- ☑ Assist with the training of internal District staff to update, maintain, and analyze the rate models
- ☑ Assist the District with the rate setting and customer outreach process
- ☑ Development of Overhead Cost Allocation to define allocable costs to each enterprise fund.

Unlike the 2013 study, the development of the Cost Allocation Plan and on-going Master Plans will enable a greater understanding operations and facility needs to further delineate cost of service. This analysis will provide a ground up confirmation of the the District's existing cost of service foundation.

As part of this project, Carollo will work with the District to develop a user-friendly, flexible rate model that generates sufficient revenue under varying conditions to cover all internal, external, fixed and variable costs as well as to provide funding for capital projects and reserves. The developed model will be capable of running different scenarios including, but not limited to:

- Staff levels, salaries, and benefit costs by varying amounts
- Operating expense levels, by varying costs and percentage
- CIP spending, by varying costs and percentage

By understanding your capital needs, not only will the project define the needs, but our Team will work with the District and Master Plan Consultant to define the impacts of delaying or eliminating capital projects. This depth of resources and expertise is only provided by a true financial and engineering firm that is focused only on water.

- Capital equipment spending, by varying costs and percentage
- Rate impact of varying inputs
- Impact of varying rate increases on level of expenditures
- Easily update external pass-through within the model and determine the impact on rates

At the project onset, Carollo will meet with District staff to determine the best approach for evaluating rate structures. Carollo will also identify potential District Board and other stakeholders outreach alternatives based on input from staff. Combining our financial expertise with our engineering perspective allows Carollo to take our analysis further and to provide our clients with detailed, supportable rates based on the functional design of the utility system. This approach ultimately provides equity and defensibility to the rate analysis. Once the analysis is completed, Carollo will work with the District to develop a successful implementation plan and assist in the initiation of the Proposition 218 process.

Integrated Engineering & Financial Focus

Carollo is leading the way for utility rate setting in California. Although Carollo's name is widely known and recognized as a "go-to" engineering design firm, **in the last 5 years, Carollo has become one of the largest rate consulting groups in California**. Having successful completed projects for San Francisco, San Jose, City of Oceanside, Carlsbad, Sacramento, Los Angeles, San Diego County Water Authority (SDCWA), Orange County Sanitation District, and Irvine Ranch Water District, we have become their trusted advisor when it comes to rate setting and understanding the impacts of Proposition 218 and recent case law.

Our combined financial and engineering approach best addresses the public's (and court's) question of "who pays how much and why." Rate studies are increasingly on the court's and public's radar. San Juan Capistrano, Palmdale Water District, Glendale, Hillsborough, etc., resulted from consultants and agencies losing sight that rates are intended to recover the costs specific to a system and not based on some generic factors. Unlike other rate consultants, our thorough knowledge of the District's systems allows us to set rates based on those systems, which then comply with Proposition 218.

Complexity is a necessity. As the court pointed out, the calculations required by Proposition 218 **may be "complex," but "such a process is now required by the California Constitution."**

KEY CHALLENGES

Rate studies, in their purest form, are an elementary math equation, which can be performed by numerous consultants. However, in the light of increasingly litigious rate environment (Proposition 218), uncertain demand forecasting, and rate payer awareness/ sensitivity, it is absolutely necessary to have a team who can undertake the following challenges:

Challenge 1. California Legal Standing

The District needs a trusted and tested advisor to develop defensible cost-of-service analysis and transparent rates for its customers. ***Recent cases, such as Palmdale Water District and San Juan Capistrano, and the recent recall at Yorba Linda Water District, are prime examples of what not to do.*** Unlike some other firms, Carollo has not lost a case on the grounds of cost-of-service (Proposition 218 or 26) and rather have been the firm that agencies have leaned on to help navigate the legal landscape.

PROVEN LEGAL UNDERSTANDING

We understand Proposition 218 and recent legal opinions and the potential implications of these challenges. Our combined financial and engineering approach is necessary to achieve the District's desired result of detailing a defensible cost-of-service framework and validating the District's existing work. With a true engineering basis providing the foundation of the analysis, we can pinpoint the specific attributes of the system related to providing various water demands. This approach sets us apart as a winning team with sound track record.

Challenge 2. Cost-of-Service Nexus

Necessary to the cost-of-service process is the development of a nexus, which details how costs incurred relate to the benefits received. Too often, cost-of-service rate structures are only approached from a single (financial) lens. While this is a critical piece, this lens explains only the needs (costs) and not the why. Our team and approach address the full picture by combining both engineering and financial lenses.

COMPLETE UNDERSTANDING AND EXPLANATION

While this approach creates the foundation for the cost-of-service nexus (as required by Proposition 218), it also helps explain the original question of "who pays, how much, and why?" ***We do not simply rely on "the numbers" to tell the story to your ratepayers and Board. With our sound engineering basis to explain "why," ratepayers can understand the complexities, which could be easily ignored.***

No Learning Curve:
Having develop District's last rate study, our existing relation with the Board, staff, and FORA, and understanding of financial needs, will enable us to hit the ground running to focus on truly tailoring our approach and outreach strategy.

Challenge 3. Communication

As everything is on the table, once the numbers are developed, the final piece is to present the recommendations and garner Board and public support. This component, while the last step of the process, cannot be ignored until the end. Building on the two earlier challenges, if the team can explain the "why" from both a financial and engineering basis to the all stakeholders, the communication is largely defined. Our team is exceptional, even in challenging environments, at communicating and getting large increases and rate redesigns passed.

TRUSTED EXPERTS AND COMMUNICATORS

Our team is comprised of industry leaders in cost-of-service and rate design. The study team has worked with well over 300 agencies and their councils and boards to clearly communicate complex issues by translating them into terms that are understandable to the layperson. Our team has published extensively on cost-of-service rate setting and regularly presents at industry conferences. **Jennifer Ivey** is a member of the American Water Works Association (AWWA) Rates and Charges Committee and a co-author of the *M1 Rates Manual*.

A successful project team must demonstrate practical and relevant experience in all of the technical aspects of the project, a well-conceived work plan and project approach, and a commitment to the project goals. The map on the previous page illustrates our experience in delivering sound and legally defensible financial services nationwide.

SCOPE OF WORK/MANAGEMENT PLAN

The proposed scope of work outlines our proposed approach for undertaking your rate analysis.

Task 1. Project Kick-off and Data Request

Carollo will hold a project kick-off meeting with District staff. The meeting will outline key objectives, determine priorities, and, if necessary, modify the scope of work. The meeting will also serve as a review point for the study data. In advance of the kick-off meeting, Carollo will submit a detailed data request.

As with any data-driven analysis, our approach begins with gathering the necessary cost and consumption data to complete the rate study.

The District's existing and historical revenue and billing data will be analyzed as a proxy of future projections. However, past consumption or financial are not indicative of future results. This is especially true when developing and implementing new rate structures. Given the advancements in conservation efforts and other possible water demand/supply and financial factors, Carollo will build from our wealth of experience to provide greater context and perspective to the analyzed data and forecasts.

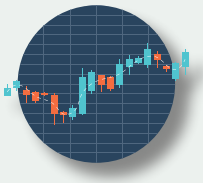
While Carollo envisions this project as a collaborative process with District staff, our goal is to provide a management plan that streamlines the process in order to adhere to the desired project schedule and to minimize time requirements placed on staff.

Task 2. Financial Forecast and Cost-of-Service

Carollo will develop a 10-year revenue requirement analysis and forecast for each system. The District's existing financial information will be analyzed and forecasted over a 10-year time horizon to determine District's annual revenue needs, including long-term maintenance and replacement costs. Carollo will use the developed model to run multiple scenarios and sensitivity analyses to determine the scenario that best meets District's desired objectives.

Revenue Requirement Analysis

Compares existing revenues of the utility to its operating, capital, and policy driven costs to establish the adequacy of the existing cost recovery levels.



Cost-of-Service Analysis

Identifies and apportions annual revenue requirements to functional rate components based on its application of the utility system.

Rate Design

Considers both the level and structure of the rate design to collect the distributed revenue requirements from each class of service.

The calculated revenue requirements will then be allocated to each customer class based on the calculated capacity and treatment requirements by billable constituent. For the domestic water and recycled water services, these billable constituents will likely include customer service, base water demand, peak water demand, and commodity. For the wastewater services, the calculated revenue requirements will be allocated to each customer class based on the calculated capacity and treatment requirements by billable constituent and correlated expenditures. As various revenue and demand projections are analyzed, the cost-of-service analysis will evaluate the impacts of these various scenarios. All proposed rate structures will adhere to Proposition 218 requirements and sound cost-of-service, rate-making principles.

TASK 2.1. POLICY REVIEW

Carollo believes that fiscal policies are a critical building block for any effective District financial plan and rate study. Moreover, in presenting any proposed rate plan to the District, we know that it is critical to provide context for any rate increases based on your fiscal policies. We will review and evaluate reserve policies and capital funding strategy with District staff, discussing the District's goals and potential rate impacts. A comparison of these policies and strategies to industry standards (and nearby agencies) could help provide context in determining possible enhancements or changes that would benefit the District's stakeholders and customers. As appropriate, we will work with District staff to refine its fiscal policies.

TASK 2.2. FINANCIAL NEEDS FORECAST

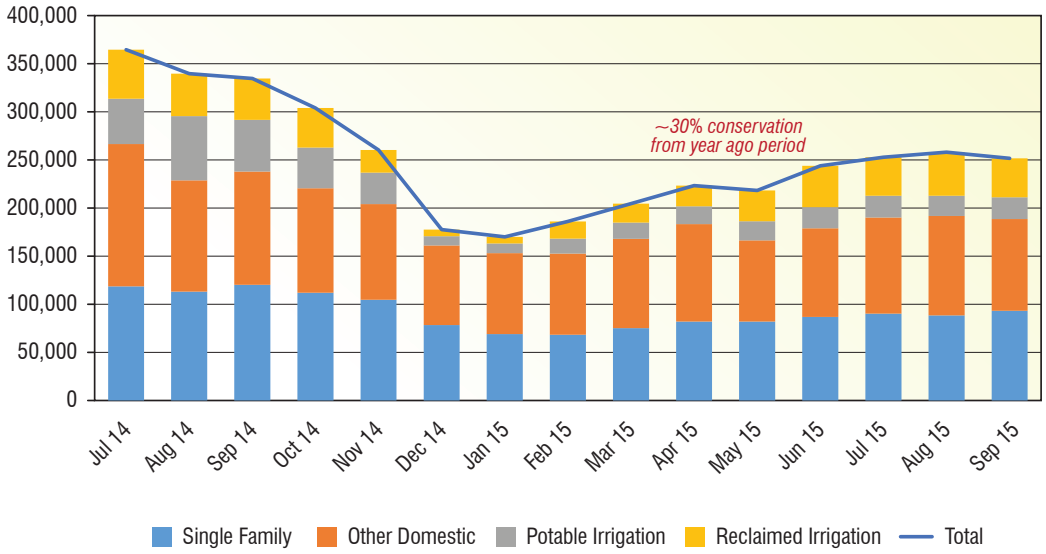
At the heart of any utility rate study is a revenue requirement, which uses projected cash flows and debt service requirements to project potential revenue shortfalls. We will incorporate data elements collected throughout the rate analysis process to develop a short- and long-range financial forecast that projects operating expenditures; repair, replacement, and other capital needs; and offsetting revenues. The analysis will focus primarily on revenue sufficiency over the next 10 years based on the projected operating, capital, policy, regulatory, and asset management needs.

Our evaluation of financial plans will consider the overall funding strategy including near- and long-term capital and operational needs, as well as potential customer usage changes due to modifications of the rate structures. Each system's capital improvement plan (CIP) will be analyzed at three levels of expenditures in order to demonstrate the overall financial implications and rates sensitivities. The results of the revenue requirement will determine what levels of rate increases are necessary in order to promote the financial stability of each system and to meet District's policy goals.

TASK 2.3. CUSTOMER DATA ANALYSIS

Carollo will conduct a statistical analysis of your past historical billing and consumption records. Due to the variable nature of the water demands, it is important to evaluate a multi-year trend and determine potential revenue lulls during low-usage years. We will use advanced statistical software to quickly and more efficiently analyze existing customer billing records and provide usable information, such as consumption breakpoints used in developing a recommendation. This step is essential to analyze potential inequities (i.e., the need for additional customer classes) and further potential reductions to water demands.

Example – Monthly Demands by Class



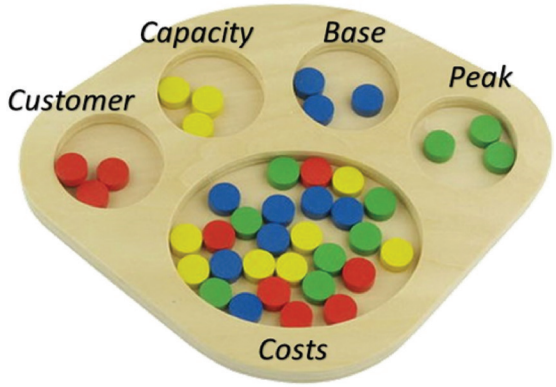
Data analysis is a critical component to **defining forecasted customer demands**. Without proposer analysis or understanding of current or potential trends can leave the District with significant challenges of underfunding or continued inequities.

In addition, we will perform sensitivity analyses related to possible water rationing or growth not occurring as projected. These results will flow through to the revenue requirements and funding analysis to determine potential impacts to revenues and overall revenue stability.

For wastewater, Carollo will review water usage and sewer discharge factors to confirm the appropriateness of existing rates and charges. Previous assumptions may need to be adjusted to reflect increased indoor efficiency (i.e., low-flow toilets and fixtures). This will make sure that each customer is paying their fair share of system costs.

TASK 2.4. COST ALLOCATION ANALYSIS

For water and recycled water, Carollo will develop a cost allocation based on the District's unique system and consider AWWA methodologies. For the water, these billable constituents will likely include customer service, base water demand, peak water demand, and commodity. These allocations will build on the existing allocations for rate consistency, account for collection and regional treatment costs, and incorporate the current District's asset and accounting records. Line-item expenditures will be allocated to customer service, base water usage, and peak water usage. As necessary to address specific customer factors or demands, Carollo will create additional cost allocation factors. Finally, these costs will be assigned to fixed and variable categories in order to develop defensible monthly fixed charges.



While the **allocation process is simple** in concept, Carollo does not rely on industry standards. Rather, Carollo will create **specific allocations based on your unique operations, supplies, demands, and infrastructure**. With an engineering focus and understanding your system, Carollo is uniquely able to define cost of service.

For the wastewater services, Carollo will build from the recommendations espoused by WEF. These allocations will define allocations to account for collection and regional treatment costs, and incorporate the current wastewater asset and accounting records. Costs will first be allocated to applicable unit processes (e.g., collection, treatment, recycled water) and then to flow, BOD_5, and TSS based on the capacity and treatment parameters of each respective unit process. Carollo will review and incorporate the District's current asset and accounting records. This will define existing relationships and provide a logical rationale for either maintaining or modifying existing practices.

TASK 3. Rate Design Recommendations

Carollo will provide an evaluation and analysis of emerging or expected future rate structures, technologies, and trends for domestic water, wastewater, and recycled water services that might impact or influence future rate structures, including how pricing and how those influences might effect of apply to the District. The evaluation will also provide an overview of known or potential risks, mandated drought restrictions, fixed versus variable revenues and expenses, and costs associated with implementation.

Carollo has worked with many similarly sized and complex agencies in developing innovative rate structures that meet the unique needs of our clients. Complexity and sophistication must be balanced with stakeholder understanding and administrative ease and costs. We will meet with District staff to review and evaluate potential rate structure alternatives that make sense for the District and the community.

TASK 3.1. OVERVIEW OF RATE STRUCTURES

Carollo will develop an easy to understand matrix that outlines:

- Advantages and disadvantages of each alternative
- Nexus between each rate structure and system costs and overall equity between customer classes
- Effect of rate structures on revenue stability
- Ability and effectiveness of rate structures to meet the District's policy objectives
- Administrative ease
- Customer acceptance
- Potential for legal challenges

For each proposed rate structure, the matrix will illustrate both qualitative and quantitative advantages, including achievement of policy objectives and revenue risk. This approach allows District staff and stakeholders to choose the rate structures that best meet stated objectives and is critical in explaining the recommendations to the public-at-large. Issues such as added administrative costs, tie-backs to the District's connection fees, and revenue impacts will all be illustrated in this matrix for straightforward communication.

Carollo's recommendation of a higher fixed charge in our 2013 study **help mitigate the financial impact of the State's drought mandate.**

Carollo's entire process will be designed to comply with Proposition 218 and recent case law, including Palmdale Water District, Hillsborough, and San Juan Capistrano. For each proposed rate structure, the matrix will illustrate both qualitative and quantitative advantages, including achievement of policy objectives and revenue risk.

TASK 3.2. RATE DESIGN RECOMMENDATIONS

Carollo will prepare a rate design analysis for each system that provides a clear, written overview of the basis upon which the rates are calculated, including an analysis of rate classes to eliminate and/or add classes as appropriate. As part of this review, Carollo will:

- Review composition and construction of all customer classes, and recommend any changes (See Task 2.3. Customer Data Analysis).
- Provide that the recommended rate structures comply with all laws, regulations, and agency policies, are documented, and are developed in compliance with Proposition 218 and 26.
- Consider the level of existing rates, social and economic factors of the community, and expense to implement.
- Determine fiscal impacts of demand reductions (mandatory drought restrictions), capital project funding requirements, and compliance with reserves and debt covenants.
- Address forecasted bill impacts of representative customers in each customer class.
- Provide rate comparisons of neighboring and comparable utilities.
- Develop a matrix that details the pros and cons of making a change, and make a recommendation based on the best and most appropriate approach.
- Prepare and provide the District with a user-friendly rate model in Microsoft Excel® for the associated rates and fees necessary to provide on-going updating and monitoring.

To account for the more detailed alternatives, Carollo will analyze the existing and planned infrastructure and system as it was designed and is being used to enhance equities and cost recovery. By creating a logical nexus between the infrastructure, its design, and use, Carollo can create a rate structure that complies with Proposition 218 and 26 and can be easily understood and communicated to the Board and overall community.

Carollo alone offers a holistic approach – providing both engineering and financial perspectives. In calculating a connection fee, ***it is critical to understand complex relationship between the existing infrastructure and planned capital projects and impacts to the calculations.***

Task 4. Model Development

Based on the collected data and feedback from the kick-off and subsequent meetings, Carollo will prepare a user-friendly tailored model in Microsoft Excel® to fit the District's expressed needs. Our model will allow us to include multiple "what-if" scenarios, which will let the District look at water supply costs, changes in demand, contract costs, etc. The four major components of the model consist of:

1. **Revenue Requirement.** Carollo will tailor this specifically around the District's line-item budget, which will include but not be limited to customer class data, operations and maintenance, CIP, and debt.
2. **Customer Analysis.** In order to develop sound revenue forecasts and equitable customer allocations, the statistical and analytical review of customer records (billing) is a critical component to the model development.
3. **Functional Allocation.** As addressed in Task 2.4., a cost allocation module will be built within each model to allocate costs specific to the District, which will then be used to form the rate structures.
4. **Rate Design.** The current rate structures for all three utilities will be reviewed and revised as outlined in Task 3.

The model is developed collaboratively with District staff throughout the study to provide constant feedback and input. The model will also serve as a complementary piece to the District's administrative record.

Task 5. Capacity Charges/Connection Fees

The capacity charges are a one-time charge imposed when a building or structure is newly connected to the District's system, or when an existing structure increases its capacity requirements due to expansion or change in service type.

To provide legal and cost justification, Carollo will review the District's capacity charges to determine the appropriate recovery of costs associated with the service provided. Althought the fees were addressed as part of the 2013 study, Carollo will re-review the existing and underlying methodology in order to better account for continued changes and investments to the systems. The updated capacity charges will continued to incorporate a "buy-in" component (as appropriate) to recover the value of existing capacity that is available to serve growth, as well as an "expansion" component to recover a proportionate cost of future capital improvements that will create capacity to serve future users. The methodology will be unified with the on-going Master Plan study to ensure consistency between planning and rate setting documents.

Our **dynamic and tailored financial models** will allow staff to **project cash flow needs, evaluate infrastructure alternatives**, and **visually present rate and financial forecast information**. Our integrated "what-if" scenario builder and dashboard will allow staff to **test multiple side-by-side financial scenarios**.

Similar to the user rate allocation, the unit process allocations developed previously will be used to allocate the capital expansion costs to the related cost factors. The capacity charges will be developed by applying the unit costs to each of the identified user categories or meter sizes. All proposed capacity charges will comply with California Government Code §66013 and §54999. A draft and final study report will be prepared to present the methodology, process, and recommendations. This report will document the need for any rate increases, multi-year revenue requirements, recommended rate scenarios for each system, an implementation plan for presenting and communicating District costs and the proposed rate structures to ratepayers and members of the public, and supporting calculations. Comments on the draft report will be incorporated in a final report.

Task 6. Cost Allocation Plan

In order to enhance cost of service methodolody, the District had requested the development of a Cost Allocation Plan (CAP). In parallel with the rate study, Carollo will work with the District to develop a reasonable, appropriate, and repeatable methodology for distributing the District's overhead or indirect costs do each operating department, division, or fund.

Indirect costs include shared administrative expenses where a department incurs costs for support that it provides to other departments (e.g., finance, human resources, legal, technology). The proposed Cost Allocation Plan provides both a full cost plan for internal charging and an OMB A-87 Plan for grant reimbursement.

Carollo will conduct on-site interview with select staff to understand the specific operations of the District. Critical to this process is understanding not only how current overhead is shared, but how future staffing and operations may change. A prime example of this is working with FORA and how certain timetable assumption can significantly alter overhead allocations. By understanding and identifying potential shifts, Carollo can limit and smooth overhead to be both fair and balanced.

This CAP model will be integrated into the Financial and Rate model (built in excel) to enable staff to not only update future allocations, but to understand the implications to rates (Marina vs Ord or Water vs Sewer). One model also streamlines the learning curve and the overall update process (one budget input, not two)

The resulting model and analysis will establish a full cost allocation methodology for specific administrative overheads that properly allocates costs among District cost centers and reimburses the District. The model will also be design in compliance with CRF, Title 2, Part 200, Subpart E – Cost Principles, Uniform Requirements, Cost Principles and Audit Requirements for Federal Awards.

Task 7. Study Report

A draft and final study report will be prepared to present the methodology, process, and recommendations. This report will document the need for any rate increases, multi-year revenue requirements, recommended rate scenarios for each system, an implementation plan for presenting and communicating District costs and the proposed rate structures to ratepayers and members of the public, and supporting calculations. Comments on the draft report will be incorporated in a final report.

Task 8. Meetings and Presentations

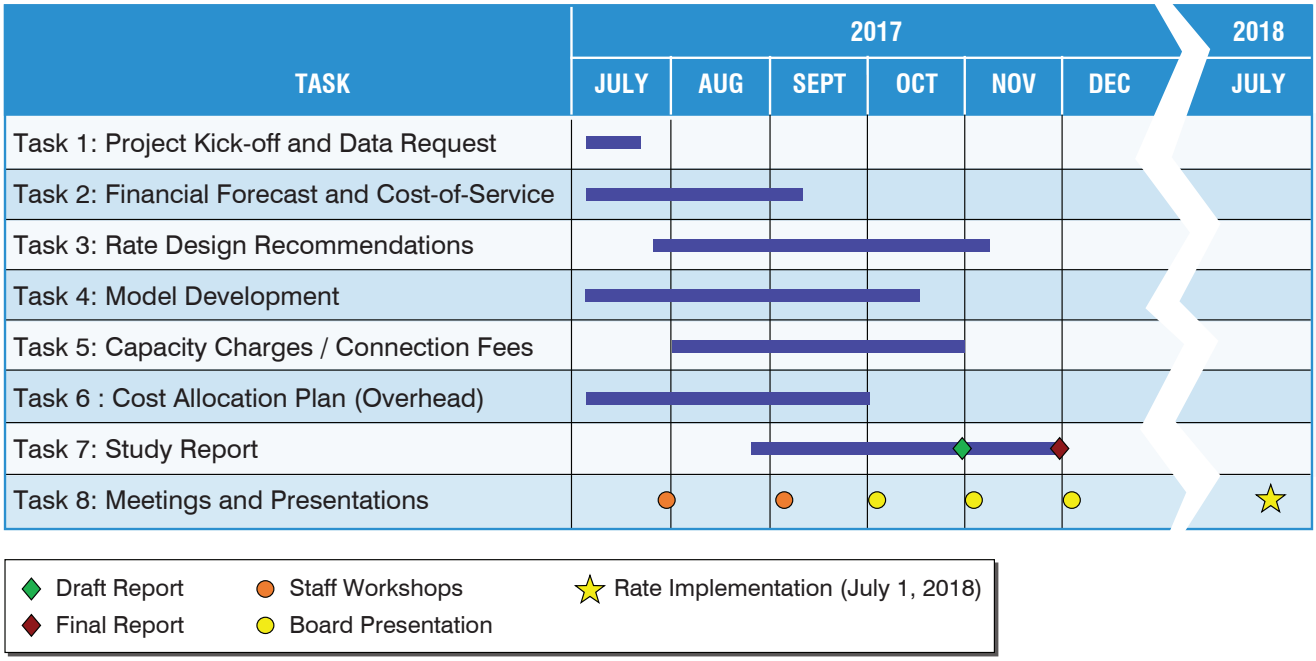
Carollo will hold two meetings with District staff during the course of the project, which include a kick-off meeting and a meeting to review draft results. In order to gain efficiencies, the Kick-off meeting will be performed following the data request and initiation of model development. This meeting could also serve as an opportunity to interview staff as part of the Cost Allocation Plan. At the final meeting (possibly coinciding with the November or December Board Presentations), Carollo will train staff on the model. The model will be available for review and discussion throughout the process, which allows for a streamlined and efficiency training meeting.

As outlined in the RFP, Carollo will also hold three public meetings/workshops. This includes one (1) presentation of draft rates, one (1) to present final rates, and one (1) final presentation at adoption. Carollo will assist District staff with the rate adoption process associated public hearings and attend at the request of the District. For added efficiencies and communication, Carollo will hold up to three progress meetings via WebEx, which will be both time and cost efficient for District staff and the project.

Our team understands the importance of face-to-face communication. Working directly with District staff, Carollo will **outline key objectives, determine priorities, and, if necessary, modify the scope of work.**

PROJECT SCHEDULE

We are committed to address the proposed scope of work within current year 2017. Carollo assumes a start of later July following award and execution of the contract. Our proposed project schedule is presented in the time table below. Carollo will work with the District to formalize the project schedule, including delivery of key deliverables, presentations, and workshops. As the District would like to implement rates for July 1, 2018, Carollo will work with the District to balance the desire for additional scenarios, financial planning, and outreach/ communication, with forecasted revenue impacts and Proposition 218 rate setting procedures.



AGREEMENT

Insurance Requirements

Carollo has continuously maintained errors and omissions insurance since mid-1960, and currently has errors and omissions insurance in excess of $5,000,000 with an A-rated American insurance company. Carollo will furnish a certificate of insurance to clients upon request prior to notice-to-proceed. Carollo also carries a comprehensive general business liability insurance policy covering bodily injury, property damage, and vehicular liability.

W-9

Carollo will provide Internal Revenue Service (IRS) Form W-9 upon request prior to notice-to-proceed.

Professional Services Agreement

We have reviewed the terms and conditions as specified in the RFP and have the following exceptions to the proposed agreement.

- ***Section 1:*** Add the following to the end of this paragraph: "Notwithstanding the foregoing, in the event the subject action alleges negligence on the part of Consultant and/or the Marina Coast Water District, or any third party not under contract with Consultant, Consultant's obligations regarding the Marina Coast Water District's defense under this paragraph include only the reimbursement of the Marina Coast Water District's reasonable defense costs incurred to the extent of Consultant's negligence as expressly determined by a final judgment, arbitration, award, order, settlement, or other final resolution."
- ***Section 2:*** Add the following to the end of this paragraph: "Consultant shall not be responsible for warranties, guarantees, fitness for a particular purpose, breach of fiduciary duty, loss of anticipated profits or for economic, incidental or consequential damages to the Marina Coast Water District or any third party arising out of breach of contract, termination, or for any other reason whatsoever. Additionally, Consultant shall not be responsible for acts and decisions of third parties, including governmental agencies, other than Consultant's subconsultants, that impact project completion and/or success."
- ***New Sections:*** The following could also be added to our scope of work as "Project Assumptions:

  "11. Consultant shall complete the services required hereunder in accordance with the prevailing standard of care by exercising the skill and ability ordinarily required of consultants performing the same or similar services, under the same or similar circumstances, in the State of California.

carollo
Engineers...Working Wonders With Water®

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June 12, 2017

Ms. Kelly Cadiente, *Director of Administrative Services*
Marina Coast Water District
11 Reservation Road
Marina, CA 93933

Subject: Fee Proposal to Provide Comprehensive Rate & Fee Study with a Cost Allocation Plan

Dear Ms. Cadiente:

Enclosed is Carollo's estimate of consulting fee to complete Marina Coast Water District's Comprehensive Rate & Fee Study with a Cost Allocation Plan. We recognize the District wishes to perform a comprehensive, yet cost-effective rate analysis. We present a budget that achieves the District's objectives and commit to the District to make every effort to efficiently deliver the project. Our estimated budget includes labor allocations for each major project task as indicated in the Scope of Work, all anticipated expense items, and hourly rates for all personnel indicated in the proposal.

The proposed budget reflects the necessary level of effort to satisfy the requirements of Proposition 218. Development of the study report requires a comprehensive understanding of the Districts water systems and ability to define the nexus of how the developed rate structure links to the District's revenue requirements. As noted in the San Juan Decision, the calculations required by Proposition 218 may be "complex," but "such a process is now required by the California Constitution." The proposed hours reflect the required customer data and cost allocation analysis provide the necessary justification.

Sincerely,

CAROLLO ENGINEERS, INC.

Lou Carella
Principal-in-Charge

Pierce Rossum
Project Manager

FEE PROPOSAL

	Lou Carella (Principal-in-Charge)	Pierce Rossum (Project Manager)	Jennifer Ivey (QA/QC)	Analytical Support	Labor Cost	PECE	Expenses	Total
Hourly Rate	*$240*	*$194*	*$240*	*$166*		*$11.70*		
Tasks								
Task 1: Project Kick-Off and Data Request	**-**	**8**	**-**	**4**	**$2,216**	**$140**	**-**	**$2,356**
Kick-off meeting with staff, data request, and research/supporting analysis								
Task 2: Financial Forecast and Cost-of-Service	**3**	**58**	**6**	**90**	**$28,352**	**$1,836**	**-**	**$30,188**
Review and development of revenue requirements, functional allocations, and reserve policies								
Task 2.1 - Policy Review	*-*	*6*	*-*	*2*				
Task 2.2 - Financial Needs Forecast	*2*	*16*	*2*	*24*				
Task 2.3 - Customer Data Analysis	*-*	*12*	*-*	*40*				
Task 2.4 - Cost Allocation Analysis	*1*	*24*	*4*	*24*				
Task 3: Rate Design Recommendations	**1**	**24**	**4**	**36**	**$11,832**	**$760**	**-**	**$12,592**
Development and documentation of rate structure alternatives and draft rates								
Task 3.1 - Overview of Rate Structures	*-*	*8*	*-*	*4*				
Task 3.2 - Rate Design Recommendations	*1*	*16*	*4*	*32*				
Task 4: Model Development	**-**	**4**	**2**	**24**	**$5,240**	**$351**	**-**	**$5,591**
Development of a tailored financial plan and rate setting model								
Task 5: Capacity Charges / Connection Fees	**2**	**12**	**2**	**24**	**$7,272**	**$468**	**-**	**$7,740**
Development of an updated capacity fee charges to support growth related capacity needs								
Task 6: Cost Allocation Plan (Overhead)	**-**	**32**	**2**	**40**	**$13,328**	**$865**	**-**	**$14,193**
Development of a clear, repeatable, and reasonable methodology for the allocation and recovery of District overhead								
Task 7: Study Report	**2**	**24**	**8**	**32**	**$12,368**	**$772**	**-**	**$13,140**
Development of a clear, defensible, and cost of service based administrative record								
Task 8: Meetings and Presentations	**-**	**36**	**-**	**16**	**$9,640**	**$608**	**$2,500**	**$12,748**
Meetings and presentations (and development of related materials) in order to receive/develop staff and Board input and garner support for recommendations								
Presentations/Workshops (each) - 3 proposed	*-*	*8*	*-*	*4*	*$2,216*	*$140*	*$500*	*$2,856*
Staff Meetings (each) - 2 proposed	*-*	*6*	*-*	*2*	*$1,496*	*$93*	*$500*	*$2,089*
TOTAL	**8**	**198**	**24**	**266**	**$90,248**	**$5,800**	**$2,500**	**$98,548**

Deliverables: *Rate Model (Excel), Cost Allocation Plan (Excel), and Draft and Final Summary Cost of Service Report*
Presentations: *Assumes a total of 3 on-site presentations/workshops (3 Board Presentations)*
Staff Meetings: *Assumes 2 working/review meeting with staff (at one meeting Carollo will conduction Cost Allocation Plan interviews)*