APRIL 17, 2017

MONTEREY REGIONAL WATER POLLUTION CONTROL AGENCY

Proposal for

Pure Water Monterey Groundwater Replenishment Project NPDES Permitting and Other Related Regulatory Services

submitted by

LARRY WALKER ASSOCIATES

in association with

TRUSSELL TECHNOLOGIES

DENISE DUFFY & ASSOCIATES

TODD GROUNDWATER

Table of Contents

1 Introduction

Larry Walker Associates (LWA), Denise Duffy and Associates (DD&A), Trussell Technologies, and Todd Groundwater (the LWA Team) are pleased to submit this response to the Monterey Regional Water Pollution Control Agency (MRWPCA) Request for Proposals (RFP) for the Pure Water Monterey Groundwater Replenishment Project NPDES Permitting and Other Related Regulatory Services. The LWA Team has worked closely with MRWPCA on all aspects of permitting and implementing the Pure Water Monterey Project. The LWA Team has a proven ability to work together and is prepared to provide MRWPCA with unmatched regulatory expertise, long-term relationships, and experience in addressing an array of regulatory requirements. This response presents the proposed LWA Team Management and Key Staff, an approach and schedule for supporting MRWPCA and the work effort, and project descriptions highlighting the LWA Team's experience providing similar services. **Attachment 1** presents resumes for the LWA Team. **Attachment 2** presents the Fee Proposal which is provided as a separate document, as specified in the RFP.

2 LWA Team Experience

LWA has assembled a project team with the breadth of knowledge and experience necessary to provide specialized technical and regulatory services. LWA worked closely with MRWPCA, Trussell Technologies, and Todd Groundwater to secure Division of Drinking Water approval of the Pure Water Monterey Advanced Water Purification Facility (PWM AWPF) and Groundwater Replenishment Project Engineering Report and Central Coast Regional Water Board adoption of Waste Discharge Requirements and Water Recycling Requirements (Order No. R3-2017-0003). DD&A prepared the Pure Water Monterey Groundwater Replenishment Project EIR and Trussell Technologies conducted the preliminary Ocean Plan Assessment for a NPDES Permit Amendment. Todd Groundwater prepared the Engineering Report and was responsible for identifying and describing the technical components, operational aspects, and groundwater quality impacts associated with groundwater replenishment. The LWA Team is, therefore, ideally suited to assist MRWPCA with obtaining the NPDES permit amendment for discharge to the ocean and to provide additional regulatory compliance services that may be needed. The LWA Team members are ***comprised of water quality scientists, engineers, hydrogeologists and professionals who are recognized in the region and across the state by public agencies and regulators as experts in the range of services identified in the RFP***. The LWA Team has a long history of collaborating with MRWPCA, the Central Coast Regional Water Board, United States Environmental Protection Agency [USEPA], and local stakeholders.

The qualifications of each firm with respect to the key areas identified in the RFP are shown in **Table 1** and described below. The qualifications of personnel assigned to the project are described in **Section 4**, Qualifications of Key Staff Members.

Table 1. Team Member Service Area Experience and Expertise

Team Members	NPDES Permits	WDRs/WRRs Permits	CEQA/NEPA Compliance	Water Quality Regulatory Assistance	Modeling and Data Analysis	Ocean Plan Compliance	Groundwater Impact Assessments
Larry Walker Associates	●	●		●	●	●	●
Denise Duffy & Associates			●				
Todd Groundwater		●		●	●		●
Trussell Technologies		●		●	●	●	

Larry Walker Associates provides highly-specialized water quality, wastewater, recycled water, stormwater, and watershed management consulting services. As a firm of experts in water quality science and regulation, we have the insight and foresight that comes only with years of experience responding to the implementation of state and federal environmental laws and regulations, and working with regulatory agencies. LWA has a successful track record of providing municipalities with wastewater and recycled water regulatory support services, including permit implementation, program development, and special studies which support cost-effective compliance options. LWA's staff is active in statewide and regional organizations that address legislative, regulatory, and permitting issues, including the California Association of Sanitation Agencies (CASA), the National Association of Clean Water Agencies (NACWA), and the WateReuse Association. LWA is a California registered Small Business Enterprise (SBE).

Trussell Technologies is an environmental engineering firm focused on process and water quality that provides consulting services to water and wastewater agencies. Trussell Technologies has earned a reputation for finding cost-effective, practical, and simple solutions to challenging projects, with particular expertise in tackling both technical and regulatory issues. Trussell Technologies engineers engage in a range of projects, including treatment process evaluation, pilot testing, design and permitting for water reclamation, potable reuse, drinking water and wastewater projects; brine management; impaired water recovery; and assessment of the significance of microbial and chemical contaminants on public health and the environment. Trussell Technologies engineers use their experience with past successful designs to ensure future success, but when new problems arise, science also plays a critical role in problem solving. Trussell Technologies operates in the nexus between practice and science, with 10 staff members holding Ph.D.'s, and 13 registered engineers with the State of California. The firm is composed of energetic, highly trained men and women under the tutelage of an industry giant, providing just the combination of experience and high-tech talent required to tackle today's toughest problems. Trussell Technologies is a California registered Small Business Enterprise (SBE).

Denise Duffy & Associates has over 30 years of demonstrated success as a land use planning and environmental consulting firm providing services in CEQA and NEPA compliance, water supply and distribution planning, watershed and hydrologic analyses, regulatory permitting (including Coastal Act compliance), natural resource planning, environmental impact assessments, public outreach, and contract planning services. DD&A has a well-documented reputation of preparing technically accurate and legally defensible environmental documents for complex water facilities planning projects throughout California. DD&A and our team of experts recently prepared the EIR and CEQA-Plus documentation for the Pure Water Monterey Groundwater Replenishment Project. DD&A also prepared the Aquifer Storage and Recovery NEPA Environmental Assessment (EA) and the EIR and NEPA EA for the Recycled Water Project in the Monterey Bay

area and the Pajaro Valley Basin Management Plan Update EIR in the Santa Cruz/Monterey area. DD&A's environmental review and permitting experience on wastewater and water supply projects within the Central Coast and on projects with similar services and issues is unequaled. The vast majority of our over 30 years of experience has been in the Central Coast area with a focus on infrastructure planning projects in which we have worked productively and effectively with the same agencies and team members that are key to the success of this Project.

Todd Groundwater specializes in the planning, development, management, and protection of groundwater resources. Founded in 1978 by Dr. David Keith Todd, author of the widely used textbook *Groundwater Hydrology*, Todd Groundwater has provided consulting services for the full range of groundwater and related surface water issues for 39 years. With an office in the City of Alameda, we are an employee-owned and California registered Small Business Enterprise (SBE). Our staff is composed of thirteen professionals and two support staff. We maintain a small, specialized staff focused on groundwater services to our clients. Our professional staff members have advanced degrees in civil engineering, geology, hydrogeology, geochemistry, geography, and environmental sciences. All our geologists and engineers are professionally registered in California (and other states), and most of our geologists are also certified hydrogeologists. Two of our principals are also engineering geologists. With an average staff tenure of fifteen years, we provide our clients with reliable and consistent service from a cohesive team.

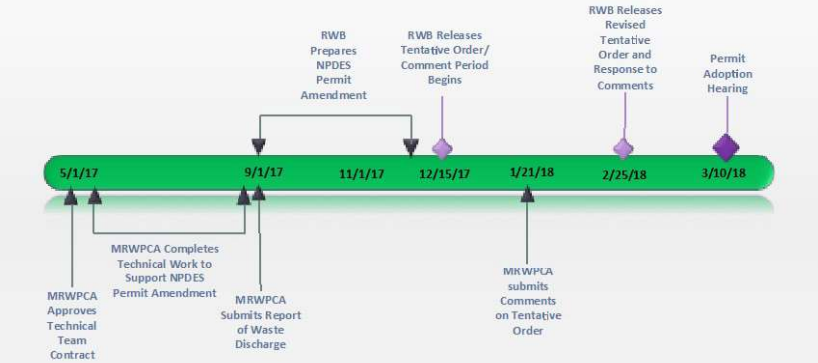
3 Proposed Approach and Time Schedule

Through the LWA Team's current work with MRWPCA, as well as other work completed throughout the region, we have a strong understanding of the regulatory issues that could arise during implementation of the Pure Water Monterey (PWM) Project. For decades, the LWA Team has specialized in regulatory support for California municipalities, which has evolved from wastewater permitting and facility planning support, into a holistic consideration of impacts and opportunities related to utilizing recycled water as a sustainable local resource. The experience detailed in this proposal and the reputation earned by the LWA Team members clearly demonstrates the LWA Team is capable and ready to support MRWPCA with NPDES permitting and other related regulatory services as needed. This includes familiarity with MRWPCA's organizational structure, facilities, operations, and policies; expertise to effectively analyze and determine MRWPCA's needs; experience carrying out constructive negotiations with regulatory agencies; and the ability to rapidly and effectively communicate with MRWPCA and its partners. The LWA Team's overall approach has proven to be comprehensive and effective by (1) providing necessary communication mechanisms and check-in points with MRWPCA staff to ensure projects meet expectations, (2) completing projects on- or ahead-of-schedule, and (3) completing projects within budget. The basic components of the LWA Team approach for completing the tasks described in the RFP include the following:

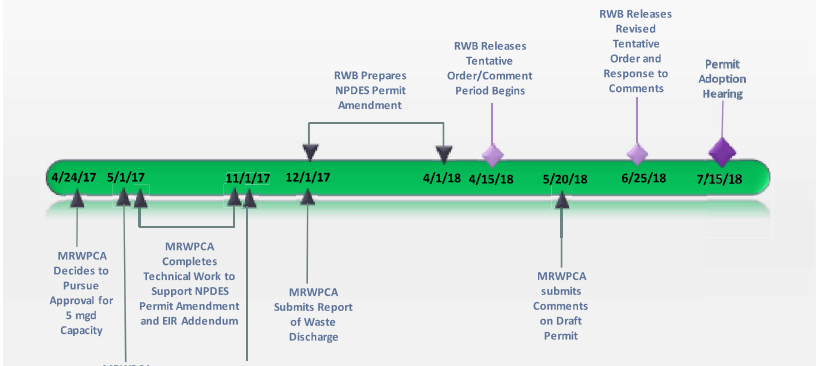
- **Understanding MRWPCA's Goals and Objectives:** The LWA Team will work with MRWPCA to obtain an amendment to its NPDES permit that allows for the discharge of secondary effluent mixed with hauled brine, PWM AWPF wastestreams, and (possibly) CalAm Desalination Plant brine. The permit amendment will be based on different flow volumes and mixtures, multiple dilution scenarios, and consideration for the effects of the discharge on the Monterey Bay National Marine Sanctuary. The LWA Team will provide technical support and documentation to demonstrate compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). As needed, the LWA Team will help MRWPCA address regulatory requirements for associated projects such as the Marina Coast Water District landscape irrigation program, MRWPCA recycled water program, CSIP agricultural irrigation, and additional groundwater replenishment in the Seaside Basin.
- **Coordinating and Communicating:** The LWA Project Manager will maintain communication within the LWA Team and with MRWPCA to keep tasks focused, on schedule, and on budget. The LWA Team will identify key lines of communication with MRWPCA, which will include project meetings (in-person or conference calls), critical check-in points, and progress reports. This will help ensure goals and objectives are met or exceeded. However, the LWA Team will strive to minimize coordination costs in an effort to focus budget resources on

tasks that directly support MRWPCA's goals and objectives.

- **Budget and Schedule:** The LWA Team will work closely with MRWPCA and Central Coast Regional Water Board staff to develop a NPDES permit amendment that can be approved at a March 2018 or a July 2018 Regional Water Board meetings. The proposed timelines to achieve these deadlines are shown below and are based on the contract award by the end of April 2017 and a Notice to Proceed by May 1, 2017. Adoption at the March 2018 Regional Water Board is better suited to a NPDES permit amendment for wastestreams associated with current operations and AWPF capacity of 4 MGD (Project Path 1). The expanded data analyses, waste discharge modeling, and CEQA assessments associated with AWPF capacity of 5 MGD (Project Path 2) will require additional time to complete. Should additional projects be proposed that would significantly change the quality of the discharge or increase the flow (e.g., CalAm Desalination Plant), the schedule will need to be adjusted.



Estimated Timeline for MRWPCA NPDES Permit Amendment – 4 mgd AWPF Capacity



Estimated Timeline for MRWPCA NPDES Permit Amendment – 5 mgd AWPF Capacity

4 Qualifications of Key Staff Members

The LWA Team offers proven managers and experts with experience working with MRWPCA and other municipalities on similar projects. A brief description of the LWA Team member roles is provided below and an organization chart is presented in **Figure 1**. The LWA Team is built around Key Staff Members with expertise related to the tasks identified in the RFP. The LWA Team commits to making management and key personnel available to support MRWPCA throughout the term of NPDES permit amendment process. **Table 2** includes key staff biographies to describe their expertise and qualifications to work on the specific tasks in the Scope of Work. **Attachment 1** includes resumes of the staff to be assigned to the project.

- ***PROJECT MANAGER:*** Denise Conners (LWA) will be the primary point of contact for MRWPCA. She will manage the work effort for each task, tracking project progress and budget. She will coordinate with LWA staff and LWA Team members assigned to each task.
- ***KEY PERSONNEL:*** The Key Staff Members make up a core group of highly experienced professionals who are experts in wastewater and recycled water regulations, NPDES permits, WDRs and WRRs, advanced treatment processes, local groundwater characterization, impacts to groundwater quality, and issues of concern to regulatory agencies and stakeholders. The key staff will provide leadership on individual work assignments, strategic guidance, and peer review, and will work closely with Ms. Conners to deliver individual tasks and manage specific technical assignments. The key staff members have a long history of collaboration and are committed for the duration of this project.
- ***SUPPORT TEAM:*** The Support Team represents the resources available to the LWA Team and MRWPCA for delivery of tasks. Many more experienced staff members are available from the LWA Team, but for brevity, are not presented in this proposal.

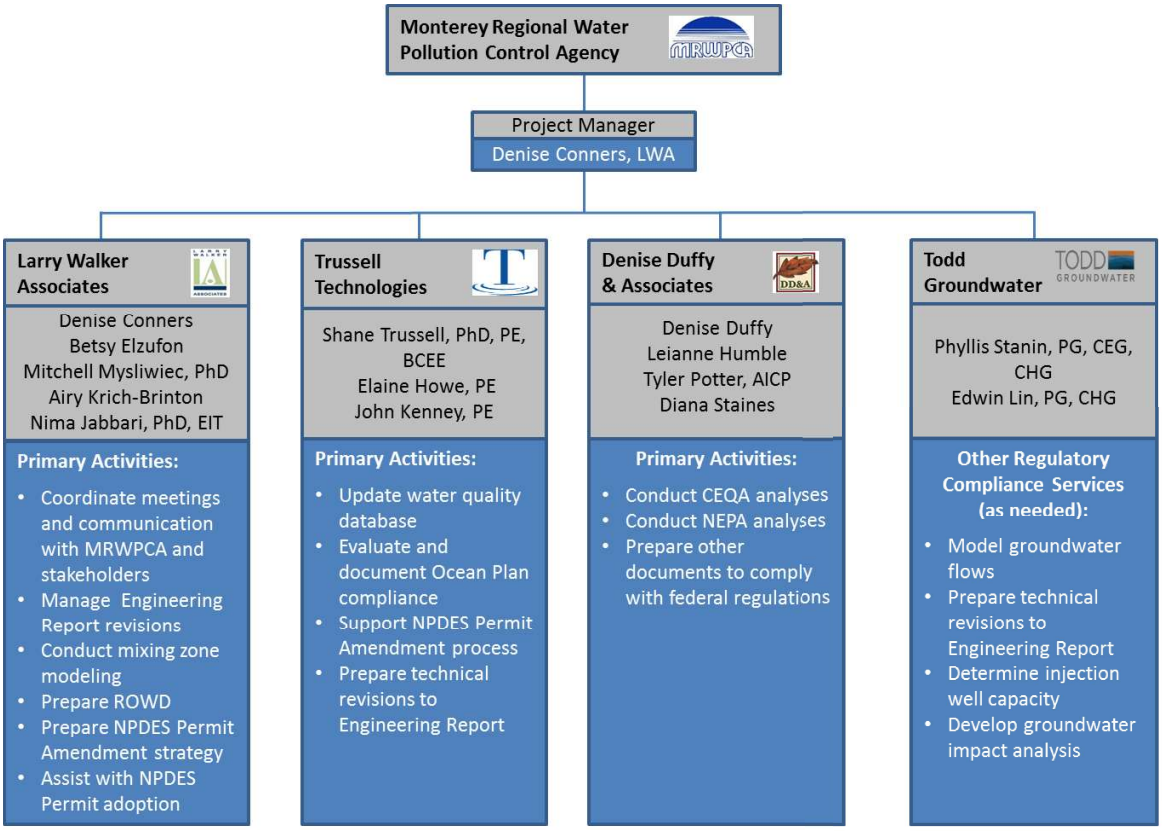


Figure 1. Organizational Chart for Larry Walker Associates Team

Table 2. Biographies for LWA Team Management and Key Personnel

Denise Conners **Firm:** *LWA* **Role:** *Project Manager* **Areas of Support:** *Contract Management, Tasks 1,4,6,7,10,11,15*	***Denise Conners*** is an Associate with LWA, and has over 23 years of experience in the environmental engineering field that includes municipal wastewater treatment facility permitting, regulatory compliance consulting, recycled water program development and permitting, and water quality study design/implementation. Ms. Conners provides expertise in NPDES permitting, regulatory agency comments/responses, and permit negotiations. Ms. Conners has developed and supported negotiations leading to the approval of numerous NPDES permits, Waste Discharge Requirements, and Water Reclamation Requirements with Regional Water Boards. Ms. Conners recent permit experience includes the City of Los Angeles Terminal Island WRP NPDES permit, the Central Contra Costa Sanitary District WWTP NPDES permit, the City of Pacifica WRP NPDES permit, and the PWM AWPF Groundwater Replenishment Project WDRs/WRRs. She regularly advises clients on wastewater and recycled water regulatory compliance strategies.
Betsy Elzufon is an Associate with LWA with over 30 years of experience in private industry in the areas of chemical engineering, industrial processes, regulatory assistance and pollution prevention. She coordinates wastewater permit renewals for discharges to surface water and discharges to land and permit implementation efforts for clients throughout California including the Los Angeles, Central Coast, Central Valley and Lahontan Regions. Ms. Elzufon has provided regulatory assistance for power plants operated by DWR and has also assisted municipalities with obtaining recycled water permits. She has conducted source identification studies and developed pollution prevention and outreach programs for several stormwater and wastewater programs in California. She has assisted several municipalities in evaluating and updating various elements of their pretreatment programs. She has managed national studies on source control and program effectiveness measurement for the Water Environment Research Foundation and the National Association of Clean Water Agencies. Betsy has a bachelors and masters degree in chemical engineering.	**Betsy Elzufon** **Firm:** *LWA* **Areas of Support:** *Tasks 4,6,7,10,11,15*
Airy Krich-Brinton **Firm:** *LWA* **Areas of Support:** *Tasks 2,3,4,6,7,10,11,12*	***Airy Krich-Brinton*** is a Project Engineer II with LWA and has 18 years of experience as a water quality engineer with LWA. She has provided regulatory assistance with NPDES permitting and compliance for over fifty municipalities in California. She performs the reasonable potential analysis following Ocean Plan procedures, prepares mixing zone study reports, and calculates water quality-based effluent limits for assistance during NPDES permit reissuance. She determines the statistical probability of compliance with proposed effluent limits and performs trend analyses based on past performance. She has prepared more than 20 Reports of Waste Discharge for NPDES permits in the last seven years using the required California and USEPA forms and including reports of special studies.
Mitch Mysliwiec is an Associate with LWA with over 18 years of experience in the environmental engineering field, including wastewater and stormwater NPDES permitting, antidegradation analyses, mixing zone modeling, watershed modeling, and TMDL development. Dr. Mysliwiec assists communities in obtaining/reissuing NPDES permits, stormwater management, and compliance strategies. He is also responsible for overseeing environmental modeling for NPDES special studies and in support of TMDL development.	**Mitch Mysliwiec, PhD** **Firm:** *LWA* **Areas of Support:** *Tasks 2,3,4,6,7,10,11,12*

Nima Jabarri, PhD, EIT **Firm:** *LWA* **Areas of Support:** *Tasks 2,3,4,6,7,10,11,12*	***Nima Jabbari*** is a Project Engineer with LWA and has expertise in surface and ground water quality analysis, modeling and monitoring. Dr. Jabbari's projects include dilution modeling to develop regulatory-approved mixing zones and surface and ground water data analysis as a tool to develop WQIPs to comply with land discharge requirements. He has extensive background in application of spatial analysis software packages in water quality and energy service areas. Dr. Jabbari has also developed stochastic models to investigate fate and transport of contaminants and to characterize aquifer contamination risk from subsurface spill of contaminants.
Edwin Lin is a Principal Hydrogeologist at Todd Groundwater, brings 19 years of experience in groundwater basin management, including evaluation of the technical feasibility, water level/quality impacts, and regulatory compliance of managed aquifer recharge projects. Since 2013 Mr. Lin has managed the field programs for the PWM Groundwater Replenishment Project, including installation of the first monitoring well near the proposed injection site. He managed the field program, analysis, and final report, which provided the hydrogeologic foundation for recharge impacts analysis. He also was key to the groundwater modeling evaluation and anti-degradation analysis. He has developed technical specifications for monitoring wells and test injection wells (including specifications for discharge of development and aquifer testing water). Mr. Lin is currently coordinating the drilling and installation of compliance monitoring wells (and test injection wells) which will be used to satisfy the new groundwater recharge regulations pertaining to subsurface injection of recycled water.	**Edwin Lin, PG, CHG** **Firm:** *Todd Groundwater* **Areas of Support:** *Task 9*
Phyllis Stanin, PG, CHG, CEG **Firm:** *Todd Groundwater* **Areas of Support:** *Task 9*	***Phyllis Stanin*** is a Vice President and Principal Geologist at Todd Groundwater and brings more than 35 years of experience with expertise in groundwater basin management and managed aquifer recharge. Since 2007 she has served as the Project Manager and Lead Hydrogeologist for the PWM Groundwater Replenishment Project. She has conducted detailed hydrogeologic investigations to evaluate target aquifers, recharge methods, and injection and recovery sites. She directed the preliminary design for vadose zone wells and deep injection wells. Ms. Stanin worked with the Division of Drinking Water on project design and prepared a Recharge Assessment Report to support successful CEQA compliance. Ms. Stanin also led the planning for a field program including installation of a deep monitoring well, analysis of hydraulic properties, and geochemical modeling to predict groundwater quality impacts. She was on the team that developed Engineering Report for compliance with indirect potable reuse (IPR) regulations. As of 2017, the project has progressed to installation of a monitoring well cluster and deep injection well, including preparation of technical specifications that satisfy regulatory requirements for discharges and disposal of water and wastes generated during construction and testing.
R. Shane Trussell is the President of Trussell Technologies, Inc., where he has focused his career on advanced wastewater and water treatment processes. Dr. Trussell has been involved in 11 potable reuse projects throughout the state, ranging from feasibility studies and pilot testing to design and regulatory permitting. For MRWPCA, Dr. Trussell has a long history as Project Manager on many phases of the PWM Project, including the bench-scale and pilot-scale testing of AWPF treatment processes; the AWPF Basis of Design Report and 10% design; and the treatment process and regulatory permitting task of the 100% AWPF design. Dr. Trussell also provided technical review for other PWM efforts, including the AWPF Engineering Report; design of the AWPF demonstration facility; AWPF source water sampling; AWPF reverse osmosis concentrate disposal planning and related reports for CEQA compliance. Most recently, Dr. Trussell led two major WaterReuse Research	**Shane Trussell, PhD, PE** **Firm:** *Trussell Technologies* **Areas of Support:** *Tasks 4,7,8,10,11,13*

Foundation projects that are guiding development of regulatory frameworks around potable reuse in California. In addition, Dr. Trussell has worked on Title 22 Engineering Reports for large potable reuse projects and is providing regulatory guidance for permitting the City of San Diego's North City Pure Water Facility (NCPWF).	
Elaine Howe, PE **Firm:** *Trussell Technologies* **Areas of Support:** *Tasks 2,3,4,8,10,13,15*	***Elaine Howe*** is a Project Manager with Trussell Technologies, and has over 20 years of experience in the field of environmental engineering, with much of her career focused on potable reuse and water treatment. Recent potable reuse projects include the design of the PWM AWPF Groundwater Replenishment Reuse Project for MRWPCA, the City of San Diego's Pure Water Advanced Water Treatment Facility design, and the City of San Diego's Failsafe Potable Reuse Demonstration Project. Ms. Howe was Lead Process Engineer and Project Manager for Trussell Tech's efforts on the MRWPCA AWPF design. Also for MRWPCA, Ms. Howe assisted with an outfall hydraulic capacity analysis of MRWPCA's existing ocean outfall, writing the Engineering Report for the PWM Groundwater Replenishment Project and addressing public comments; presentation of a multi-Dm NPDES permitting approach to the Central Coast Regional Water Board staff for the wastestreams discharged through MRWPCA's ocean outfall; and review and comments on the draft WDRs/WRRs for the PWM AWPF Groundwater Replenishment Project. For other potable reuse projects, Ms. Howe evaluated post-treatment stabilization options for City of San Diego's Pure Water design, and she evaluated pathogen log removal values with ozone, including presentations to the Division of Drinking Water for the City of San Diego's Failsafe Potable Reuse Demonstration Project.
John Kenny is a Project Engineer with Trussell Technologies. Recently, he assisted on many elements of the PWM Projects. These elements include the AWPF preliminary source water bench-scale testing, AWPF pilot testing, source water monitoring, AWPF Basis of Design, CEQA compliance technical support, AWPF demonstration facility design and operational support, AWPF NPDES permitting approach and initial meeting with Central Coast Regional Water Board staff, AWPF Title-22 Engineering Report, dieldrin and DDT bench-scale testing, 30% through 100% AWPF design, updated Ocean Plan compliance analysis, and the PWM AWPF Groundwater Replenishment Project WDRs/WRRs. Mr. Kenny has also been project engineer on projects including the Fallbrook Public Utilities District Santa Margarita River Conjunctive Use Project, where he was the pre-design and design lead for Trussell Tech. During this effort, Mr. Kenny conducted a preliminary evaluation of California Ocean Plan compliance from the desalting reverse osmosis concentrate stream that was blended with secondary effluent and other waste streams prior to discharge through the City of Oceanside outfall. After conducting this analysis Mr. Kenny met with the California Regional Water Quality Control Board staff to discuss the permitting approach.	**John Kenny, PE** **Firm:** *Trussell Technologies* **Areas of Support:** *Tasks 2,3,4,8,10,13,15*
Denise Duffy **Firm:** *Denise Duffy & Associates* **Areas of Support:** *Task 5,12,15*	***Denise Duffy*** has extensive experience in managing complex projects that involved interagency coordination, innovative resource management, and public outreach. Her direct CEQA/NEPA experience on wastewater and water projects includes the PWM Groundwater Replenishment Project from 2013 to the present, including all aspects of the environmental review, CEQA/NEPA compliance and permitting on the federal, state and local level. Ms. Duffy has over three decades of direct experience preparing all types of environmental documentation in compliance with CEQA and NEPA with key areas of emphasis of water and wastewater planning and resource permitting in compliance with the federal and state Endangered Species Acts, environmental requirements, and permitting. She has successfully completed over 50 environmental documents for a variety of infrastructure, redevelopment and resource management

	projects in the region. Ms. Duffy, as the owner and principal of DD&A, oversees all major environmental and permit compliance projects.
Tyler Potter has over 13 years of environmental and land use planning experience. Mr. Potter has provided consulting services in connection with entitlements processing, CEQA/NEPA analysis, climate change analysis, public outreach, and project management among other professional services. Mr. Potter has managed numerous projects for both public and private clientele, ranging from multi-disciplinary environmental analyses to agricultural/rangeland conservation projects. He has authored and managed numerous EIRs, EAs, IS/MNDs, and other documentation from clients throughout Central and Northern California. Mr. Potter has a Master's Degree in Internal Environmental Policy with a background in public policy, environmental regulations, and planning. He is a member of the American Institute of Certified Planners (AICP) and holds a certificate in project management from the Monterey Institute of Internal Studies (MIIS). Mr. Potter's diverse background in planning, environmental regulations, and public policy provides him with a unique understanding of the complexities associated with the planning and environmental review processes. Mr. Potter has direct CEQA/NEPA experience on wastewater and water projects including the PWM Groundwater Replenishment Project from 2013 to the present time where he manages the Mitigation and Monitoring compliance services for the PWM project for DD&A.	**Tyler Potter, AICP** **Firm:** *Denise Duffy & Associates* **Areas of Support:** *Tasks 5,12,15*
Leianne Humble **Firm:** *Denise Duffy & Associates* **Areas of Support:** *Task 5,12,15*	***Leianne Humble*** has been working in the environmental field for more than 25 years. Ms. Humble is skilled in all aspects of environmental analysis and review, including policy development and interpretation, impact assessment, alternatives evaluation, mitigation design, interagency coordination, and technical study review. She provides environmental review in accordance with local, CEQA, and NEPA requirements for projects including commercial, industrial, redevelopment, residential, and public service development as well as planning documents such as general plans, specific plans, and regional transportation plans. Ms. Humble has a proven track record of preparing environmental documents in satisfaction of CEQA and NEPA documents for recycled water and replenishment projects, including working on the Pure Water Monterey/GWR EIR and assisting San Jose Water Company on early environmental analysis of direct potable reuse and other projects. Ms. Humble's position as Senior Planner includes editing in-house documents for quality control, providing expert advice on environmental regulations and protocol to assistant and associate-level staff, coordinating with developers, technical subconsultants, and governmental agencies, and maintaining project budgets and schedules.
Diana Staines has seven years of experience in the environmental field working with private and public entities. Her experience is diverse and includes expertise in land use permitting and regulatory compliance areas. In addition, Ms. Staines has contributed in the preparation of CEQA documents, including working on the PWM Groundwater Replenishment EIR. She has prepared Initial Studies, EIRs, and other environmental and regulatory deliverables. Her responsibilities as an Environmental Planner include preparing assisting in project management, Initial Studies and other supporting CEQA/NEPA documents, entitlements, mitigations, government, and public outreach. Using her interdisciplinary background in various environmental topics and issues, Ms. Staines would provide assistance on all aspects of CEQA/NEPA compliance and permitting services.	**Diana Staines** **Firm:** *Denise Duffy & Associates* **Areas of Support:** *Task 5,12,15*

5 Scope of Work

The RFP identified three project paths and outlined the regulatory services tasks expected for each path. The Project Paths are defined below and illustrated in **Figure 2**. The fee proposals for each Project Path are presented in **Attachment 2**. The fee proposals are based on implementing each Project Path independently.

- **Project Path 1 - Pure Water Monterey Regulatory Tasks**

  This path includes the technical and regulatory activities associated with obtaining an NPDES permit amendment and other regulatory approvals needed for operation of a 4 MGD Advanced Water Purification Facility.

- **Project Path 2 – Regulatory Compliance Analysis and Documentation for MCWD RUWAP**

  This path includes the technical and regulatory activities associated with obtaining an NPDES permit amendment and other regulatory approvals needed for operation of a 5 MGD Advanced Water Purification Facility and landscape irrigation by the Marina Coast Water District.

- **Project Path 3 – Regulatory Compliance Analysis and Documentation for CalAm Desalination**

  This path includes the technical and regulatory activities associated with developing a strategy for a NPDES permit amendment and other regulatory approvals needed for operation of a 5 MGD Advanced Water Purification Facility, landscape irrigation by the Marina Coast Water District, and acceptance of brine produced by the CalAm Desalination Plant.

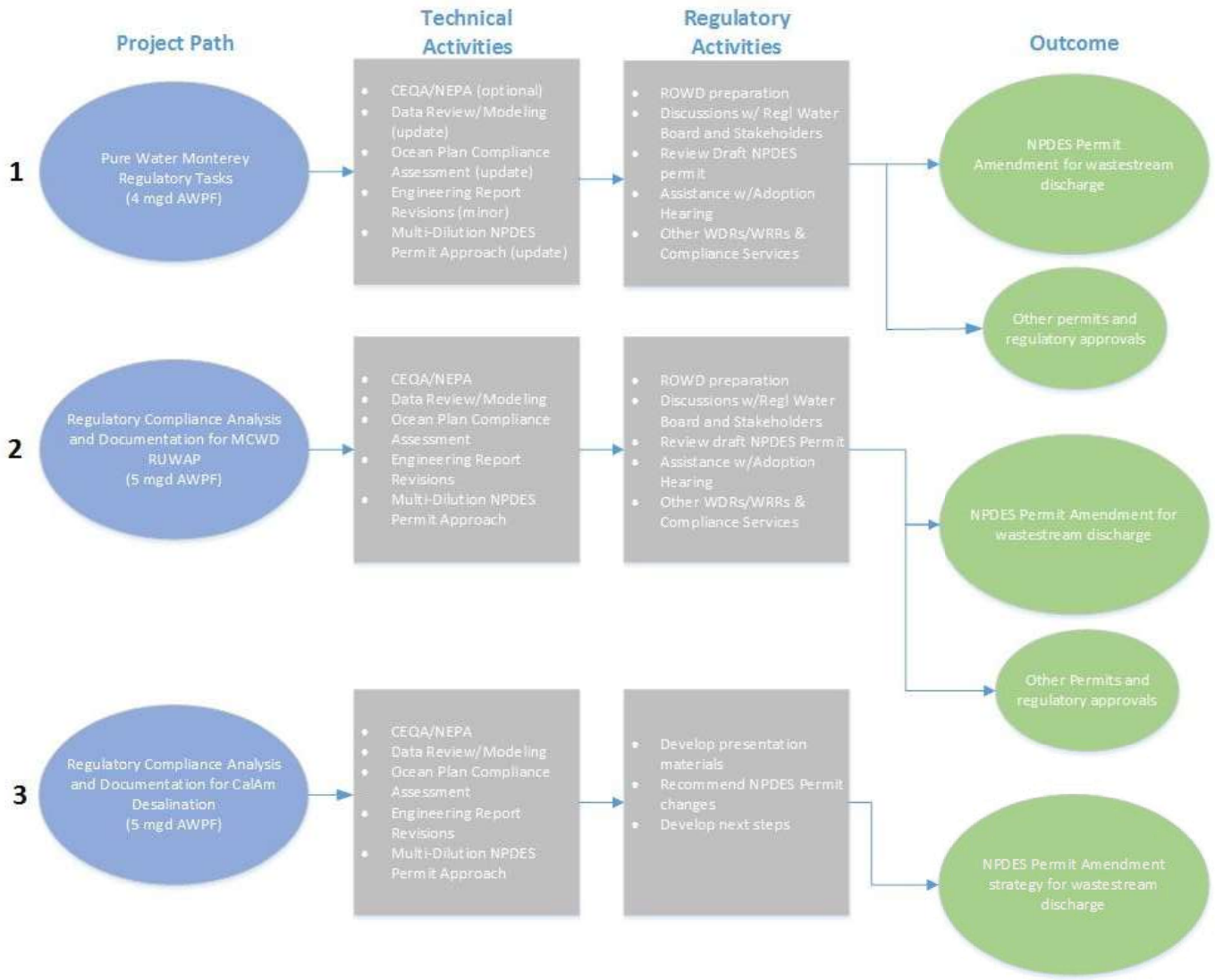


Figure 2. Project Paths Utilized for Scope of Work and Fee Proposals

The LWA Team will assist MRWPCA with NPDES Permitting and Other Related Regulatory Services according to the following tasks specified for each Project Path.

Project Path 1 - Pure Water Monterey Regulatory Tasks

❖ Task 1: Project Management and Coordination

This task includes project oversight, contract implementation, and meeting attendance. Four in-person meetings were assumed for budgeting purposes: a project kickoff meeting, a project status meeting with MRWPCA and other stakeholders, a meeting with MRWPCA and Regional Water Board staff to discuss the permitting approach, and the Regional Water Board permit adoption hearing.

❖ Task 2: Data/Report Review and Modeling

The LWA Team will review existing technical documents, environmental assessments, and other relevant regulatory materials to assess project status. In addition, the LWA Team will determine if the existing effluent, wastestream, and receiving water datasets are representative. For Path 1, it is assumed the existing water quality database and 2015 ocean outfall modeling results are sufficient and will not be revised.

❖ Task 3: Ocean Plan Compliance Assessment

The LWA Team will review the existing Ocean Plan Compliance Assessment Technical Memorandum and prepare a Reasonable Potential Analysis (RPA) using the minimum probable initial dilution (Dm) results determined from the 2015 ocean outfall modeling results. Appropriate discharge scenarios will be developed to address the constituents of concern. For Path 1, it is assumed the existing Ocean Plan Compliance Assessment Technical Memorandum will be sufficient or will require minor revisions only. If revisions are required, two drafts and one final will be provided for review and comment by MRWPCA and other interested stakeholders.

❖ Task 4: Develop Approach for Multi-Dilution NPDES Permit

The LWA Team will review the multi-Dm NPDES permit approach developed in 2016 and discuss possible modifications with MRPWCA staff. A modified approach may be needed to address RPA results, new constituents of concern, regulatory reporting requirements, and a framework that will include additional wastestreams in the future. The LWA Team will recommend specific edits to the current NPDES permit to accommodate projected effluent quality and implementation of the multi-Dm approach. Additional technical information and presentation materials will be developed as needed to communicate the preferred NPDES permit approach to Regional Water Board staff.

❖ Task 5: CEQA/NEPA (optional)

The LWA team will review any revised technical information to determine if the previous CEQA/NEPA findings are sufficient. For Path 1, it is assumed that existing environmental documentation is adequate to enable approvals of the NPDES permit amendment by the Regional Water Board, Monterey Bay National Marine Sanctuary, and the California Coastal Commission.

❖ Task 6: Prepare Report of Waste Discharge

The LWA Team will prepare a Report of Waste Discharge (ROWD) to request a NPDES permit amendment for changed effluent quality and multi-Dm conditions. The draft ROWD will be submitted to MRWPCA staff for review and comment. The LWA Team will discuss any comments on the draft ROWD with MRWPCA staff and and incorporate those comments into the Final ROWD. One (1) electronic copy with the report files in native format and Adobe PDF format will be provide on CD-ROM to MRWPCA for the ROWD submittal. The LWA Team will work with MRWPCA and Regional Water Board staff to answer questions about the ROWD and manage the permitting process. Additional information will be prepared for submittal as needed to address comments generated by Regional Water Board staff.

❖ Task 7: NPDES Permit Adoption

The LWA Team will review and assess the findings, requirements, and compliance ramifications of the draft NPDES permit. The LWA Team will provide written comments on the draft permit and work with MRWPCA staff to prepare a comment letter that will be submitted to the Regional Water Board. The LWA Team will work with MRWPCA and Regional Water Board staff to address issues of concern and negotiate outcomes that can be supported by MRWPCA. The LWA Team will support MRWPCA during preparation for the permit adoption hearing including preparing draft presentation materials as needed. In addition, LWA Team members will attend the permit hearing to assist MRWPCA staff in responding to public comments or questions posed by Regional Water Board members.

❖ Task 8: Revisions to Engineering Report

The LWA Team will revise the existing PWM Groundwater Replenishment Project Engineering Report to address findings made by Regional Water Board and Division of Drinking Water staff. A draft version will be provided to MRWPCA for review. The final version will incorporate MRWPCA comments and provided in a format for submittal to the Regional Water Board and Division of Drinking Water.

❖ Task 9: Other WDRs/WRRs and/or Other Regulatory Compliance Services, as Needed

The LWA Team will provide other technical and regulatory compliance services to support additional regulatory and responsible agency approvals including environmental compliance and permitting requirements, as needed and as directed by MRWPCA staff. In particular, the Regional Water Board may require an Anti-degradation Analysis to support increased pollutant loading at the MRWPCA outfall. Because it is uncertain what type of activities may be needed, the RFP did not require a cost estimate for this task. Instead, the LWA Team will prepare a cost estimate and scope of services when the services are identified and authorized by MRWPCA.

As an example of work that may be conducted under this task, we understand that MRWPCA may increase injection of recycled water deliveries by 1 MGD in the Seaside Basin (from 4 MGD to 5 MGD). The current project includes up to four deep injection wells (DIWs), four vadose zone wells (VZWs), six monitoring well clusters, and backflush basins. The total injection capacity of the DIWs and VZWs is uncertain and will not be confirmed until initial well construction and testing is complete. If additional injection facilities are required, Todd Groundwater will support MRWPCA and the LWA Team in revising the Environmental Impact Report with updates to recycled water delivery schedules, injection facility design, field implementation, groundwater impacts analysis, and mitigation measures. The LWA Team in coordination with Todd Groundwater will determine if additional modeling of injection operations in the Seaside Groundwater Basin will be required. If needed, Todd Groundwater will work with the Seaside Basin Watermaster to perform additional groundwater flow modeling. New model simulations would be used to re-evaluate groundwater level changes in the Paso Robles and Santa Margarita aquifers, subsurface flow paths, underground/response retention time, and pathogen reduction credit estimates for a 5-MGD injection project. Modeling results would be used to revise pertinent sections of the Engineering Report (e.g., injection facilities, response retention time, groundwater recharge impact, and groundwater monitoring sections).

Project Path 2 - Regulatory Compliance Analysis and Documentation for MCWD RUWAP

For Project Path 2, Tasks 1-9 will be supplemented with the additional tasks listed in RFP Addendum No. 1.

❖ Task 1: Project Management and Coordination

This task includes project oversight, contract implementation, and meeting attendance. Four in-person meetings were assumed for budgeting purposes: a project kickoff meeting, a project status meeting with MRWPCA and other stakeholders, a meeting with MRWPCA and Regional Water Board staff to discuss the permitting approach, and the Regional Water Board permit adoption hearing.

❖ Task 2, 10: Data/Report Review and Modeling

The LWA Team will review existing technical documents, environmental assessments, and other relevant regulatory materials to assess project status. In addition, the LWA Team will update the existing effluent, wastestream, and receiving water quality datasets. The LWA Team will work with MRWPCA to determine appropriate discharge scenarios and obtain necessary data to develop model parameters consistent with those scenarios. The CORMIX mixing zone model will be utilized to determine available dilution at the edge of the Zone of Initial Dilution (ZID) under a range of scenarios to meet the requirements that may be specified by the Regional Water Board and the Monterey Bay National Marine Sanctuary. The LWA Team will prepare a technical memorandum documenting the modeling results for review and comment by MRWPCA staff. The final technical memorandum will incorporate MRWPCA comments and will be used to conduct the Ocean Plan Compliance Assessment.

❖ Task 3, 10: Ocean Plan Compliance Assessment

The LWA Team will prepare an Ocean Plan Compliance Assessment Technical Memorandum to address changed wastestream volume and quality, incorporate new Dm results, and document any outfall/diffuser modifications that may be recommended to achieve compliance. It is assumed that Schaaf and Wheeler will provide updated wastestream information to the LWA Team through a separate contract with MRPWCA. If outfall/diffuser modifications are needed, the mixing zone model will be revised to determine available dilution based on changed operation or structural alterations. The Technical Memorandum will include results of the Reasonable Potential Analysis (RPA) using the Dm's determined from the modeling results. Appropriate discharge scenarios will be developed to address the identfied constituents of concern. A draft technical memorandum will be provided to MRWPCA staff for review and comment. The final technical memorandum will incorporate MRWPCA comments and will be provided in a format for submittal to the Regional Water Board.

❖ Task 4, 10: Develop Approach for Multi-Dilution NPDES Permit

The LWA Team will develop a multi-Dm NPDES permit approach based on the Ocean Plan Compliance Assessment. The LWA Project Team will evaluate how many Dm's are needed and how they can be incorporated into the NPDES permit amendment. A different approach than what was presented in 2015 to Regional Water Board staff may be needed to address RPA results, new constituents of concern, regulatory reporting requirements, and a framework to include additional wastestreams in the future. The LWA Team will recommend specific edits to the current NPDES permit to accommodate projected effluent quality and implementation of the multi-Dm approach. Additional technical information and presentation materials will be developed as needed to communicate the preferred NPDES permit approach to Regional Water Board staff.

❖ Task 5, 12: CEQA/NEPA

The LWA team will finalize the Project Description/Proposed Action for the CEQA/NEPA findings and confirm the appropriate level of CEQ/NEPA documentation. For Path 2, it is assumed the project involves preapation of an Addendum to the PWM Groundwater Replenishment Project EIR as well as to the Marina Coast Water District's (MCWD) Regional Urban Water Augmentation Project (RUWAP) EIR/EA to address the increased AWPF capacity form 4 MGD to 5 MGD. The Addendum will describe the proposed changes compared to the project approved on October 8, 2015, including reconfiguration of facilities, changes in facility size and capacity, changes to system yield, use of product water, and ocean outfall discharge quantity and quality. The LWA Project Team will prepare an Administrative Draft Addendum and submit to MRWPCA for review and comment. The Draft Addendum will incorporate MRWPCA comments and be prepared pursuant to CEQA Guidelines to evaluate whether the project modifications present any new significant impacts not identified in the previously certified EIRs or any increase in severity in any previously identified significant impacts. Based on comments received on the Draft Addendum, the LWA Team will prepare a Final Addendum. In preparation for Agency Action, a draft Board Resolution will be prepared including CEQ-required findings related to conclusions of the Addendum. The LWA Team will attend one public hearing for approval of the Addendum and/or project

approval. Upon completion of the Addendum, the LWA Team will prepare a draft Revised Mitigation Monitoring and Reporting Program (MMRP) and Project Impact Summary Table consistent with the certified EIR mitigation measures in the Addendum. A Draft MMRP will be provided to MRWPCA for review and comment. After project approval, a draft/final Notice of Determination (NOD) will be prepared for filing with the County Clerk and the State Clearinghouse. The LWA Team will prepare transmittals as needed related to the project approval and CEQA/NEPA documentation.

- **Task 6, 11: Prepare Report of Waste Discharge**

  The LWA Team will prepare a Report of Waste Discharge (ROWD) to request a NPDES permit amendment for changed effluent quality and multi-Dm conditions. The draft ROWD will be submitted to MRWPCA staff for review and comment. The LWA Team will discuss any comments on the draft ROWD with MRWPCA staff and and incorporate those comments into the Final ROWD. One (1) electronic copy with the report files in native format and Adobe PDF format will be provide on CD-ROM to MRWPCA for the ROWD submittal. The LWA Team will work with MRWPCA and Regional Water Board staff to answer questions about the ROWD and manage the permitting process. Additional information will be prepared for submittal as needed to address comments generated by Regional Water Board staff.

- **Task 7, 11: NPDES Permit Adoption**

  The LWA Team will review and assess the findings, requirements, and compliance ramifications of the draft NPDES permit. The LWA Team will provide written comments on the draft permit and work with MRWPCA staff to prepare a comment letter that will be submitted to the Regional Water Board. The LWA Team will work with MRWPCA and Regional Water Board staff to address issues of concern and negotiate outcomes that can be supported by MRWPCA. The LWA Team will support MRWPCA during preparation for the permit adoption hearing including preparing draft presentation materials as needed. In addition, LWA Team members will attend the permit hearing to assist MRWPCA staff in responding to public comments or questions posed by Regional Water Board members.

- **Task 8, 13: Revisions to Engineering Report**

  The LWA Team will revise the existing PWM Groundwater Replenishment Project Engineering Report to address findings made by Regional Water Board and Division of Drinking Water staff and to reflect increased capacity and changed design criteria for the 5 MGD AWPF. A draft version of the revised Engineering Report will be provided to MRWPCA for review. The final version will incorporate MRWPCA comments and provided in a format for submittal to the Regional Water Board and Division of Drinking Water.

- **Task 9: Other WDRs/WRRs and/or Other Regulatory Compliance Services, as Needed**

  The LWA Team will provide other technical and regulatory compliance services to support additional regulatory and responsible agency approvals including environmental compliance and permitting requirements, as needed and as directed by MRWPCA staff. In particular, the Regional Water Board may require an Anti-degradation Analysis to support increased pollutant loading at the MRWPCA outfall. Because it is uncertain what type of activities may be needed, the RFP did not require a cost estimate for this task. Instead, the LWA Team will prepare a cost estimate and scope of services when the services are identified and authorized by MRWPCA.

Project Path 3 - Regulatory Compliance Analysis and Documentation for CalAm Desalination

For Project Path 3, Tasks 1-5 and Tasks 8-9 will be supplemented with the additional tasks listed in RFP Addendum No. 1. Because of the uncertainties associated with the CalAm Desalination Plant, Task 6 (ROWD Preparation) and Task 7 (NPDES Permit Adoption) are not included and may be addressed under a separate scope of work.

❖ Task 1: Project Management and Coordination

This task includes project oversight, contract implementation, and meeting attendance. Four in-person meetings were assumed for budgeting purposes: a project kickoff meeting, two technical meetings to discuss progess and/or mitigation strategies with MRWPCA, CalAm, and other stakeholders, and a meeting with MRWPCA, CalAm, and Regional Water Board staff to discuss the permitting approach.

❖ Task 2, 14: Data/Report Review and Modeling

The LWA Team will review existing technical documents, environmental assessments, and other relevant regulatory materials to assess project status. In addition, the LWA Team will update the existing effluent, wastestream, and receiving water quality datasets. The LWA Team will work with MRWPCA and CalAm to determine appropriate discharge scenarios and obtain necessary data to develop model parameters consistent with those scenarios. The CORMIX mixing zone model will be utilized to determine available dilution at the edge of the Zone of Initial Dilution (ZID) under a range of scenarios to meet the requirements that may be specified by the Regional Water Board and the Monterey Bay National Marine Sanctuary. The LWA Team will prepare a technical memorandum documenting the modeling results for review and comment by MRWPCA and CalAm staff. The final technical memorandum will incorporate MRWPCA and CalAm comments and will be used to conduct the Ocean Plan Compliance Assessment.

❖ Task 3, 14: Ocean Plan Compliance Assessment

The LWA Team will prepare an Ocean Plan Compliance Assessment Technical Memorandum to address changed wastestream volume and quality, incorporate new Dm results, and document any outfall/diffuser modifications that may be recommended to achieve compliance. It is assumed that Schaaf and Wheeler will provide updated wastestream information to the LWA Team through a separate contract with MRPWCA. If outfall/diffuser modifications are needed, the mixing zone model will be revised to determine available dilution based on changed operation or structural alterations. For budgeting purposes, it was assumed that other mitigation strategies such as bench- or pilot-scale testing would be addressed under a separate contract with MRWPCA. The Technical Memorandum will include results of the Reasonable Potential Analysis (RPA) using the Dm's determined from the modeling results. Appropriate discharge scenarios will be developed to address the identified constituents of concern. A draft technical memorandum will be provided to MRWPCA and CalAm staff for review and comment. The final technical memorandum will incorporate MRWPCA and CalAm comments and will be provided in a format for submittal to the Regional Water Board.

❖ Task 4, 15: Develop Approach for Multi-Dilution NPDES Permit

The LWA Team will develop a multi-Dm NPDES permit approach based on the Ocean Plan Compliance Assessment. The LWA Project Team will evaluate how many Dm's are needed and how they can be incorporated into the NPDES permit amendment. A different approach than what was presented to Regional Water Board staff in 2015 may be needed to address the RPA results, new constituents of concern, and regulatory reporting requirements. The LWA Team will recommend specific edits to the current NPDES permit to accommodate projected effluent quality and implementation of the multi-Dm approach. Additional technical information and presentation materials will be developed as needed to communicate the preferred NPDES permit approach to Regional Water Board and Monterey Bay National Marine Sanctuary staff.

❖ Task 5, 15: CEQA/NEPA

Assistance with an environmental review process that includes CalAm Desalination Plant wastestreams is not included in this scope of work. For Path 3, it is assumed the project involves preparation of an Addendum to the PWM Groundwater Replenishment Project EIR as well as to the Marina Coast Water District's (MCWD) Regional Urban Water Augmentation Project (RUWAP) EIR/EA to address the increased AWPF capacity form 4 MGD to 5 MGD. The LWA team will finalize the Project Description/Proposed Action for the CEQA/NEPA findings and confirm the appropriate level of CEQ/NEPA documentation. The Addendum will describe the

proposed changes compared to the project approved on October 8, 2015, including reconfiguration of facilities, changes in facility size and capacity, changes to system yield, use of product water, and ocean outfall discharge quantity and quality. The LWA Project Team will prepare an Administrative Draft Addendum and submit to MRWPCA for review and comment. The Draft Addendum will incorporate MRWPCA comments and be prepared pursuant to CEQA Guidelines to evaluate whether the project modifications present any new significant impacts not identified in the previously certified EIRs or any increase in severity in any previously identified significant impacts. Based on comments received on the Draft Addendum, the LWA Team will prepare a Final Addendum. In preparation for Agency Action, a draft Board Resolution will be prepared including CEQ-required findings related to conclusions of the Addendum. The LWA Team will attend one public hearing for approval of the Addendum and/or project approval. Upon completion of the Addendum, the LWA Team will prepare a draft Revised Mitigation Monitoring and Reporting Program (MMRP) and Project Impact Summary Table consistent with the certified EIR mitigation measures in the Addendum. A Draft MMRP will be provided to MRWPCA for review and comment. After project approval, a draft/final Notice of Determination (NOD) will be prepared for filing with the County Clerk and the State Clearinghouse. The LWA Team will prepare transmittals as needed related to the project approval and CEQA/NEPA documentation.

To facilitate permitting of additional flows associated with include the CalAm desalination project, the LWA Team will develop technical information and presentation material to communicate the optimal approach and operational reporting mechanism to be incorporated into the NPDES amendment. In addition, the LWA Team will recommend changes to the language and limitations in the existing NPDES permit to reflect the results of the previous tasks with respect to Ocean Plan Compliance and applicable dilution credits.

❖ Task 8, 15: Revisions to Engineering Report

The LWA Team will revise the existing PWM Groundwater Replenishment Project Engineering Report to address findings made by Regional Water Board and Division of Drinking Water staff and to reflect increased capacity and changed design criteria for the 5 MGD AWPF. The Engineering Report revisions will not include any changes to AWPF treatment processes resulting from possible mitigation strategies. A draft version of the revised Engineering Report will be provided to MRWPCA for review. The final version will incorporate MRWPCA comments and provided in a format for submittal to the Regional Water Board and Division of Drinking Water.

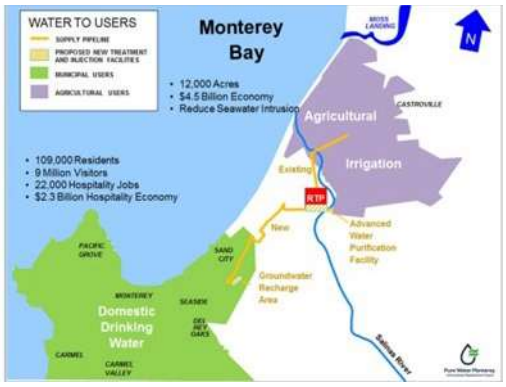
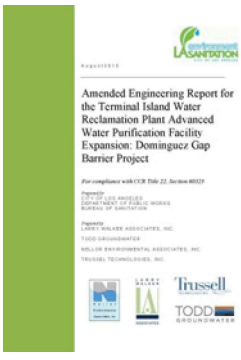
❖ Task 9: Other WDRs/WRRs and/or Other Regulatory Compliance Services, as Needed

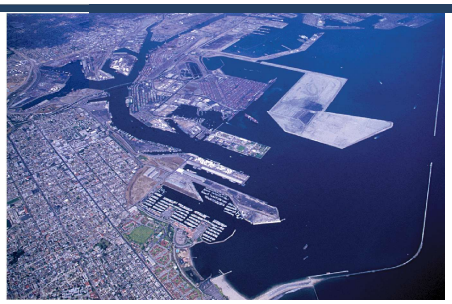
The LWA Team will provide other technical and regulatory compliance services to support additional regulatory and responsible agency approvals including environmental compliance and permitting requirements, as needed and as directed by MRWPCA staff. In particular, the Regional Water Board may require an Anti-degradation Analysis to support increased pollutant loading at the MRWPCA outfall. Because it is uncertain what type of activities may be needed, the RFP did not require a cost estimate for this task. Instead, the LWA Team will prepare a cost estimate and scope of services when the services are identified and authorized by MRWPCA.

6 Relevant Project Experience

The LWA Team has completed numerous projects that demonstrate its technical qualifications and experience, provide a record of past performance, and highlight the LWA Team's ability to deliver high quality work products similar to those required for this project. **Table 3** presents representative project descriptions to illustrate the LWA Team's experience and demonstrate its familiarity with MRWPCA's regulatory needs and associated programs.

Table 3. Representative Project Descriptions for LWA Team

Project Name: *Pure Water Monterey Advanced Water Purification Facility* **Client:** *MRWPCA* **Participating Team Members:** *LWA, Todd Groundwater, Trussell Technologies, DD&A*	The LWA Team supported MRWPCA with several regulatory aspects of the PWM Project.  LWA coordinated approval of the Engineering Report and review of the draft PWM WDRs/WRRs, negotiated a process to avoid overly stringent recycled water limits, and prepared written comments on the Tentative Order. The WDRs/WRRs were adopted by the Central Coast Regional Water Board in March 2017. Trussell Technologies conducted design services for the AWPF and assisted MRWPCA with several projects related to the implementation of the PWM project, such as sampling the additional source waters, conducting bench- and pilot-scale testing of the advanced treatment processes, brine disposal planning, assisting with technical aspects on the CEQA review, and developing technical documentation to support a NPDES permit amendment. DD&A prepared the EIR and CEQA-Plus documentation for the PWM Groundwater Replenishment Project.Todd Groundwater assisted MRWPCA with technical evaluations, EIR support, coordination of fieldwork, and planning and development of the DDW Engineering Report to support development a technically feasible and economical project. Todd Groundwater was responsible for describing all technical components and operational aspects pertaining to hydrogeology. These included anticipated injection schedules, the monitoring and reporting program, and approach and implementation plan to satisfy tracer requirements set forth in the new DDW regulations. **Reference Information:** *Bob Holden, Principal Engineer* *MRWPCA* *(831) 645-4634, bobh@mrwpca.com*
Project Name: *Engineering Report for the TIWRP AWPF Expansion: Dominguez Gap Barrier Project* **Client:** *LASAN* **Participating Team Members:** *LWA, Todd Groundwater, Trussell*	LASAN is implementing the Phase 2 Ultimate Expansion at the TIWRP Advanced Water Purification Facility (AWPF). The upgrades include replacing chloramination disinfection with an advanced oxidation process (AOP) and increasing production of recycled water (6 mgd to 12 mgd). The TIWRP AWPF will produce purified recycled water that meets the definition of "full advanced treatment," the quality of recycled water required by CCR Title 22, Section 60320.201 for subsurface application (groundwater injection). The purified recycled water will be injected at the Dominguez Gap Barrier to prevent seawater 

Technologies	intrusion and augment drinking water supplies. LWA assisted LASAN in the preparation TIWRP AWPF Engineering Report, which is required by CCR Title 22 Section 60323, prior to the development of a recycled water permit. LWA led a team of consultants (including Todd Groundwater and Trussell Technologies) that worked with LASAN and its Project Partners (Los Angeles Department of Water and Power, Water Replenishment District of Southern California, Los Angeles County Department of Public Works) to format, prepare, and review the Engineering Report. Trussell Technologies developed a report on the pilot testing of AOP at the TIWRP and provided technical review of other sections of the Engineering Report. The pilot testing report included evaluation of pilot results, recommendation of a selected AOP technology for implementation at the full-scale based on both bench- and pilot-scale testing results, as well as recommendation of an approach for performance monitoring at the full-scale as required by the DDW. Todd Groundwater prepared all of the groundwater-related sections of Engineering Report. These included presentation of the Pathogen Reduction Time (PRT) and Response Retention Time (RRT) underground, description of the hydrogeologic setting, groundwater flow model predictions, barrier facilities, groundwater quality, nearby water supply production wells, antidegradation analysis, and potential impacts of injection on contaminant plumes. LWA and Trussell Technologies assisted LASAN during discussions with DDW, prepared revisions to address DDW comments on the Engineering Report, and prepared materials for the Engineering Report Public Hearing. The Engineering Report was approved by DDW in December 2015. **Reference Information:** *Mark Starr, Plant Manager* *Los Angeles Bureau of Sanitation* *310-548-7520, mark.starr@lacity.org*
Project Name: *NPDES Wastewater Permit Review and Negotiation Support* **Client:** *LASAN* **Participating Team Members:** *LWA*	LWA, in collaboration with Somach Simmons and Dunn, Downey Brand, Nellor Environmental, and Everest International has supported LASAN during reissuance of permits for all four of the City's water reclamation/wastewater treatment plants. Support included:  ❖ NPDES Permit Renewal Assistance for the Hyperion WWTP —Reviewed and commented on the 2004 and 2010 Tentative NPDES Permits, issued jointly by the LARWQCB and USEPA Region IX. LWA coordinated development of a comments package with input from numerous City divisions, LWA engineers and scientists, and subcontractors with expertise in water quality law, engineering design, and public outreach. LWA conducted mixing zone modeling for Ocean Plan compliance and assisted City staff during negotiation of technical permit issues prior to adoption. The permit comments and negotiation effort resulted in adoption of a permit that the City could comply with. ❖ NPDES Permit Assistance for DC Tillman Water Reclamation Plant and Los Angeles-Glendale Water Reclamation Plants — LWA reviewed and commented on Tentative NPDES Permits for DCTWRP and LAGWRP issued simultaneously by the Los Angeles Regional Water Board with a short comment periods in 1998, 2006, and 2010. LWA

identified problematic effluent limits and requirements, reviewed those requirements for compliance with the Basin Plan and other relevant laws and regulations; conducted RPAs; computed final and interim numeric effluent limits for CTR toxic constituents using the water quality-based protocols specified by state and federal guidance documents; enumerated technical flaws in the draft permit; prepared written comments for the LASAN's comments packages; and, where necessary, developed an estimate of permit compliance costs considering both capital and O&M expenses. Subsequent to the 1998 permits adoption, LWA, worked with the City Attorney's Office and Special Counsel to prepare appeals documentation.

- NPDES Permit Assistance for the Terminal Island Water Reclamation Plant — In addition to providing permit reissuance services in 2005, 2010, and 2015, LWA conducted multiple dilution studies. For the 2015 dilution study, completed with support from Everest International, multiple models were utilized to evaluate the acute and chronic mixing zones. The results of the study confirmed the previous study, and a 65:1 dilution ratio was used in development of effluent limits.

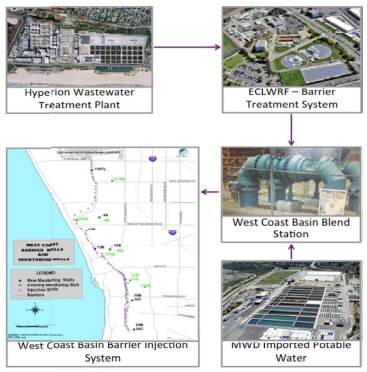
Reference Information:
Hassan Rad
Los Angeles Regulatory Affairs Division
213-847-5186, hassan.rad@lacity.org

Project Name:
West Coast Basin Barrier Project 5-Year Engineering Report

Client:
West Basin Municipal Water District

Participating Team Members:
Trussell Technologies, Todd Groundwater

Over-pumping in the West Coast Basin during the first half of the 1900s caused groundwater levels to decline, leading to seawater intrusion. The West Coast Basin Barrier Project was established to prevent further seawater intrusion into drinking water aquifers through a network of injection wells. West Basin's Barrier Treatment System at Edward C. Little Water Recycling Facility receives non-nitrified secondary-treated effluent from the City of Los Angeles' Hyperion Wastewater Treatment Plant and provides the full advanced treatment necessary for Groundwater Replenishment Reuse Projects utilizing subsurface application.



West Coast Basin Barrier Project Process Overview

Trussell Technologies and Todd Groundwater prepared the 2011-2015 Five-Year Engineering Report to detail compliance status with the State Recycled Water Policy and GWR regulations. Specifically, the 5-Year Engineering Report described the applicable regulatory requirements, the facilities and history, groundwater modeling conducted to predict recycled water flow and travel time, various water quality data for the preceding five years, reliability criteria, diluent water, project monitoring and reporting program, operations optimization plan, and contingency plan.

Reference Information:
Uzi Daniel
West Basin Municipal Water District
310-660-6245, uzid@westbasin.org

Project Name:
San Diego Pure Water Program

Client:
City of San Diego

Participating Team Members:
Trussell Technologies

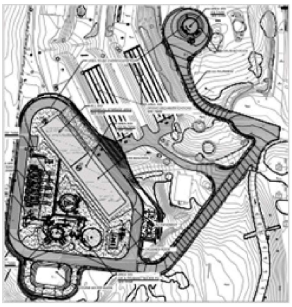
Trussell Technologies is part of a consulting team that is working with the City of San Diego to implement the Pure Water Program. The goal of the Pure Water Program is to develop a 30-mgd capacity potable reuse water purification facility that is operational by 2021, and with a long term goal of using purified potable recycled water for one-third of San Diego's drinking water supply (approximately 83 mgd). Trussell Technologies is supporting this effort with regulatory guidance for permitting potable reuse facilities for surface water augmentation, pre-design of the North City Pure Water Facility for two treatment train options, and pre-qualification and pre-selection testing for major equipment capital purchases including the microfiltration/ultrafiltration (MF/UF), RO, and ultraviolet light/advanced oxidation process (UV/AOP) systems. Trussell Technologies led the 10% and 30% predesign efforts with respect to ozone, biologically activated carbon, MF/UF, RO, UV/AOP and post-stabilization process decisions. Additionally, key design and regulatory decisions have been influenced by Trussell Technologies role in the operation and testing of a 1-mgd Demonstration Pure Water Facility. Trussell Technologies has been continually interfacing with the Pure Water Program independent advisory panel and working with industry experts and the City of San Diego staff to develop a sound strategy for permitting the future facilities. Trussell Technologies is also contributing to the regulatory efforts of this project by authoring and reviewing several sections of the Engineering Report. These include the Facilities Descriptions, Purified Water Quality, Filter Loading Evaluation for Water Reuse, Pathogenic Microorganism Control, Reliability, Monitoring and Reporting, and Drinking Water Supply System sections of the Engineering Report.

Reference Information:
Bill Pearce
City of San Diego
858-292-6494, wpearce@sandiego.gov

Project Name:
Santa Margarita River Conjunctive Use Project Facilities Design

Client:
Fallbrook Public Utility District

Participating Team Members:
Trussell Technologies, LWA



The Fallbrook Public Utility District (FPUD) is integrating a new potable water supply into their portfolio through the Santa Margarita River Conjunctive Use Project (SMRCUP), where FPUD will receive infiltrated Santa Margarita River (SMR) water from Marine Corps Base Camp Pendleton (MCBCP). Trussell Technologies was hired to assist in designing the SMRCUP facilities, including developing a raw water quality characterization of the source water, defining treatment goals, developing a treatment train that meets treatment goals, and providing design services to further develop the design to the 100%-level for use in a bid package. Trussell Technologies designed the pre-treatment and post-treatment facilities, and worked with the regulators to ensure the project met their requirements. In addition, Trussell Technologies evaluated the ability of the future RO concentrate stream to comply with the California Ocean Plan Water Quality Objectives after blending with excess secondary effluent from FPUD's reclamation plan, and then further blending with other dischargers prior to exiting the City of Oceanside's Outfall. Trussell Technologies and LWA supported FPUD with submitting the Report of Waste Discharge and meeting with the San Diego Regional Water Board staff.

Reference Information:
Jack Bebee, P.E., Assistant General Manager
Fallbrook Public Utility District (FPUD)
(760) 728-1125, jackb@fpud.com

7 Summary of Experience

LWA appreciates the opportunity to present the LWA Team's experience for the PWM Groundwater Replenishment Project NPDES Permitting and Other Related Regulatory Services. The LWA Team believes its collective experience and expertise will provide the insights and skills needed to meet regulatory requirements and advance MRWPCA's goals of providing safe, clean, and sustainable local sources of water to the Monterey Peninsula.

- **Project Management and Delivery:** The LWA Team members have significant experience managing complex projects. The LWA Team has a proven management approach and structure to utilize personnel across disciplines in an efficient, timely, and cost-effective manner.
- **Technical Qualification and Experience:** The LWA Team is comprised of individuals and firms who are known as industry leaders and innovators. The LWA Team's Key Personnel have a history of serving on various projects for MRWPCA. The LWA Team has the technical qualifications, experience, and capabilities required to assist MRWPCA with NPDES permitting and other regulatory issues associated with implementing the PWM Groundwater Replenishment Project.
- **Record of Past Performance:** The LWA Team has a substantial record of past experience working on similar projects for numerous municipalities throughout the state.
- **Familiarity with MRWPCA:** LWA Team members have been an integral part of many MRWPCA projects over the last 10+ years. In addition, the LWA Team has worked collaboratively with MRWPCA, the Central Coast Regional Water Board, and other local stakeholders.

LARRY WALKER ASSOCIATES

Attachment 2:
Fee Proposal

Pure Water Monterey Groundwater Replenishment Project
NPDES Permitting and Other Related Regulatory Services
Fee Proposal

The Larry Walker Associates (LWA) Team is providing three fee proposals for NPDES Permitting and Regulatory Services as described in the Monterey Regional Water Pollution Control Agency (MRWPCA) Request for Proposals (RFP) and the RFP Addendum No. 1.

The cost estimates are based on the current billing rates for each firm and the projected time/expenses to implement the following Project Paths:

Project Path 1 - Pure Water Monterey Regulatory Tasks (Table 1)
This path includes the technical and regulatory activities associated with obtaining an NPDES permit amendment and other regulatory approvals needed for operation of a 4 MGD Advanced Water Purification Facility.

Project Path 2 - Regulatory Compliance Analysis and Documentation for MCWD RUWAP (Table 2)
This path includes the technical and regulatory activities associated with obtaining an NPDES permit amendment and other regulatory approvals needed for operation of a 5 MGD Advanced Water Purification Facility and landscape irrigation by the Marina Coast Water District.

Project Path 3 - Regulatory Compliance Analysis and Documentation for CalAm Desalination (Table 3)
This path includes the technical and regulatory activities associated with developing a strategy for a NPDES permit amendment and other regulatory approvals needed for operation of a 5 MGD Advanced Water Purification Facility, landscape irrigation by the Marina Coast Water District, and acceptance of brine produced by the CalAm Desalination Plant.

In addition, **Table 4** presents Typical Meeting Costs as requested in the RFP under the Fee Proposal Submission Requirements.

The cost estimates were developed using information provided in the RFP/Addendum No. 1, input received at the April 10, 2017 Pre-proposal Meeting, and the LWA Team's best understanding of the Project Paths based on previous experience with the Pure Water Monterey Project. The LWA Team will work with MRWPCA to adjust project descriptions and costs if needed.

Table 1. Project Path 1 – Pure Water Monterey Regulatory Tasks

Task		Estimated Cost	Estimated Level of Effort (hours)
1	Project Management and Coordination	$39,691	174
2	Data/Report Review and Modeling	$5,636	30
3	Ocean Plan Compliance Assessment	$14,902	84
4	Develop Approach for Multi-Dilution NPDES Permit	$51,335	282
5	CEQA/NEPA (Optional)	$2,658	19
6	Prepare Report of Waste Discharge	$14,332	70
7	NPDES Permit Adoption	$33,556	168
8	Revisions to Engineering Report	$17,450	108
9	Other WDRs/WRRs and Other Regulatory Compliance Services (As needed)	$-	-
	Total	$179,559	935

Table 2. Project Path 2 – Regulatory Compliance Analysis and Documentation for MCWD RUWAP

Task		Estimated Cost	Estimated Level of Effort (hours)
1	Project Management and Coordination	$54,077	244
2, 10	Data/Report Review and Modeling	$42,536	236
3, 10	Ocean Plan Compliance Assessment	$84,332	484
4, 10	Develop Approach for Multi-Dilution NPDES Permit	$81,561	450
5, 12	CEQA/NEPA	$72,617	468
6, 11	Prepare Report of Waste Discharge	$21,832	102
7, 11	NPDES Permit Adoption	$50,682	252
8, 13	Revisions to Engineering Report	$35,241	214
9	Other WDRs/WRRs and Other Regulatory Compliance Services (As needed)	$-	-
	Total	$442,878	2450

Table 3. Project Path 3 – Regulatory Compliance Analysis and Documentation for CalAm Desalination

Task		Estimated Costs	Estimated Level of Effort (hours)
1	Project Management and Coordination	$54,145	230
2, 14	Data/Report Review and Modeling	$49,826	272
3, 14	Ocean Plan Compliance Assessment	$150,695	870
4, 15	Develop Approach for Multi-Dilution NPDES Permit	$121,462	714
5, 15	CEQA/NEPA	$19,379	468
8, 15	Revisions to Engineering Report for MCWD RUWAP	$88,479	214
9	Other WDRs/WRRs and Other Regulatory Compliance Services (As needed)	$-	-
	Total	$483,986	2,768

*As stated in Addendum No. 1, Costs for this Project Path do not include ROWD Preparation and Permit Adoption

Table 4. Typical Meeting Costs

Typical Meeting Costs	Estimated Costs	Estimated Level of Effort (hours)
Assumes meeting organization, attendance, travel costs, and meeting note preparation by the LWA Project Manager (8 hrs). Assumes in-person attendance including travel costs for one Trussell Technologies staff member (Project Manager level, 4 hrs) and one Denise Duffy & Associates staff member (Project Manager level, 4 hrs).	$4,530	16

LARRY WALKER ASSOCIATES

Rate Schedule
Effective July 1, 2016 – June 30, 2017

PERSONNEL	Rate $/Hour
Administrative	$ 80
Technical Assistant	$ 90
Contract Administrator	$145
Project Staff I-B	$140
Project Staff I-A	$160
Project Staff II-B	$175
Project Staff II-A	$195
Senior Staff	$220
Associate	$245
Vice President	$270
President	$295

REIMBURSABLE COSTS

Travel:

Local mileage	Current IRS rate
Transportation	Actual expense
Auto rental	Actual commercial rate
Fares	Actual expense
Room	Actual expense
Subsistence [1]	$48 per day

The rate for each meal as follows:[1]

Breakfast	$ 9
Lunch	$13
Dinner	$21
Incidentals	$ 5

Report Reproduction and Copying:

Actual expense	
Black and white copy, in-house	$0.08
Color copy, in-house	$0.89
Binding, in-house	$1.95

Special Postage and Express Mail:

Actual expense

Other Direct Costs:

Actual expense

Daily Equipment Rental Rates:

All single parameter field meters (pH, EC, D.O., Turbidity)	$25 each
Multi-parameter field meters	$35
Peristaltic Sampling Pump	$35
Professional grade GPS unit	$25
Digital Flow Meter	$45
Digital Fluorometer	$45
Multi-parameter Data Sonde (with telemetry)	
- first day	$200
- each additional day	$ 40

Subcontractors:

Actual expense plus 10% fee

Note: [1] Charged when overnight lodging is required.

TRUSSELL TECHNOLOGIES, INC.
HOURLY BILLING RATES

Effective: January 1, 2017

	Billing Rate	
	Normal Hourly Rate[1]	**Expert Daily Rate[2]**
Senior Company Officer	$ 299	$ 3,588
Principal Engineer III	$ 245	$ 2,940
Principal Engineer II	$ 230	$ 2,760
Principal Engineer I	$ 210	$ 2,520
Supervising Engineer III	$ 198	-
Supervising Engineer II	$ 185	-
Supervising Engineer I	$ 172	-
Senior Engineer III	$ 158	-
Senior Engineer II	$ 148	-
Senior Engineer I	$ 136	-
Engineer II	$ 125	-
Engineer I	$ 116	-
Associate Engineer II Senior Office Manager I	$ 108	-
Associate Engineer I Office Manager III	$ 101	-
Assistant Engineer II Office Manager II	$ 93	-
Assistant Engineer I Office Manager I	$ 87	-
Office / Lab Assistant II	$ 80	-
Office / Lab Assistant I	$ 76	-

1. Time will be billed in 15 minute increments
2. Time will be billed in increments of one day

Other Direct Costs
Mileage for vehicle use to be reimbursed at current IRS rate.
Travel, equipment rental and other direct costs to be reimbursed at actual cost

Outside Professional Services:
Outside professional services to be reimbursed at actual cost

Denise Duffy & Associates, Inc.
PLANNING AND ENVIRONMENTAL CONSULTING

2017
SCHEDULE OF RATES

HOURLY PERSONNEL RATES

Principal	$220.00
Senior Project Manager/Engineering Specialist	$184.00
Senior Project Manager	$158.00
Senior Botanist	$147.00
Senior Planner/Scientist II	$147.00
Project Manager	$138.00
Senior Planner/Scientist	$128.00
Assistant Project Manager	$116.00
Environmental Biologist	$110.00
Associate Planner/Scientist	$105.00
Assistant Planner/Scientist	$ 94.00
GIS/Computer Specialist	$100.00
Administrative Manager	$ 82.00
Database/Designer/Graphics	$ 77.00
Field Technician	$ 66.00
Administrative Assistant	$ 61.00

Direct reimbursable expenses are charged at DD&A cost, plus 15%.
These expenses may include, but are not limited to: subconsultants, reproduction, courier, postage, long-distance phone, fax and cellular, mileage and field supplies.
Mileage will be charged at the current IRS mileage rate.

Above rates are effective through 12/31/17 and may be adjusted thereafter.

947 Cass Street, Suite 5 ▪ Monterey, CA 93940 ▪ Tel: (831) 373-4341 ▪ Fax: (831) 373-1417

TODD GROUNDWATER

PLANNING • DEVELOPMENT • MANAGEMENT • PROTECTION

SCHEDULE OF CHARGES

January 2017

Title	Name	Hourly Rate
Principal Consultant	Iris Priestaf	$ 230
Principal Geologist	Phyllis Stanin	$ 230
Principal Hydrogeologist	Sally McCraven	$ 230
Senior Hydrogeologist	Dan Craig	$ 220
Senior Hydrogeologist	Mike Maley	$ 220
Senior Engineer	Katherine White	$ 215
Senior Hydrologist	Gus Yates	$ 215
Principal Hydrogeologist	Edwin Lin	$ 210
Senior Geochemist	William Motzer	$ 210
Senior Hydrogeologist	Liz Elliott	$ 205
Senior Engineer	Maureen Reilly	$ 205
Senior Hydrogeologist	Chad Taylor	$ 205
Staff Geologist	Amber Ritchie	$ 160
CAD/GIS/Graphics	Alain Boutefeu	$ 115
GIS/Drafting Support	Support Staff	$ 105
Clerical	Sheila Gould	$ 105

Rates are subject to adjustment in January

Communications
2% of Professional Services

Travel Time
Travel time will be charged at regular hourly rates.

Litigation, Depositions, and Testimony
Deposition and trial testimony are charged at twice hourly rates.

Outside Services
All services not ordinarily furnished by Todd Groundwater, including printing, subcontracted services, local mileage, travel by common carrier, etc. are billed at cost + 15%. Local mileage is billed at the current Federal mileage rate (.535¢).