

**AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR**

THIS AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR is made and effective as of the 5th day of October, 2022, by and between the CITY OF BEAUMONT (“CITY”) whose address is 550 E. 6<sup>th</sup> Street, Beaumont, California 92223 and T.R. Holliman & Associates, Inc., whose address is 3543 Citrus Street, Highland CA 92346 (“CONTRACTOR”).

**RECITALS**

This Agreement is entered into on the basis of the following facts, understandings and intentions of the parties to this Agreement:

- A. CITY desires to engage CONTRACTOR to provide Recycled Water Implementation Facilitator Services; and
- B. CONTRACTOR has made a proposal (“Proposal”) to the CITY to provide such professional services, which Proposal is attached hereto as Exhibit “A”; and
- C. CONTRACTOR agrees to provide such services pursuant to, and in accordance with, the terms and conditions of this Agreement, and represents and warrants to CITY that CONTRACTOR possesses the necessary skills, licenses, certifications, qualifications, personnel and equipment to provide such services.

**AGREEMENT**

NOW, THEREFORE, in consideration of the foregoing Recitals and mutual covenants contained herein, CITY and CONTRACTOR agree as follows:

- 1. Term of Agreement. This Agreement is effective as of the date first above written and shall continue until terminated as provided for herein. Notwithstanding anything in this Agreement to the contrary, this Agreement shall automatically terminate after one (1) year unless extended by the parties with the approval of the City Council of the CITY.
- 2. Services to be Performed. CONTRACTOR agrees to provide the services (“Services”) as follows: Recycled Water Implementation Facilitator Services as provided in the Proposal and any related services which the City may request in writing. All Services shall be performed in the manner and according to the timeframe set forth in the Proposal. CONTRACTOR designates Thomas R. Holliman as CONTRACTOR’S professional responsible for overseeing the Services provided by CONTRACTOR.
- 3. Associates and Subcontractors. CONTRACTOR may, at CONTRACTOR’s sole cost and expense, employ such competent and qualified independent associates, subcontractors and consultants as CONTRACTOR deems necessary to perform the Services; provided, however, that CONTRACTOR shall not subcontract any of the Services without the written consent of CITY.

.4. Compensation.

4.01 CONTRACTOR shall be paid at the rates set forth in the Proposal and shall not increase any rate without the prior written consent of the CITY. Notwithstanding anything in this Agreement to the contrary, total fees and charges paid by CITY to CONTRACTOR under this Agreement shall not exceed One Hundred Forty-Nine Thousand Six Hundred dollars (\$149,60.00).

4.02 CONTRACTOR shall not be compensated for any Services rendered nor reimbursed for any expenses incurred in excess of those authorized unless approved in advance by the CITY, in writing.

4.03 CONTRACTOR shall submit to CITY, on or before the fifteenth (15<sup>th</sup>) of each month, itemized invoices for the Services rendered in the previous month. The CITY shall not be obligated to pay any invoice that is submitted more than sixty (60) days after the due date of such invoice. CITY shall have the right to review and audit all invoices prior to or after payment to CONTRACTOR. This review and audit may include, but not be limited to CITY's:

- a. Determination that any hourly fee charged is consistent with this Agreement's approved hourly rate schedule;
- b. Determination that the multiplication of the hours billed times the approved rate schedule dollars is correct;
- c. Determination that each item charged is the usual, customary, and reasonable charge for the particular item. If CITY determines an item charged is greater than usual, customary, or reasonable, or is duplicative, ambiguous, excessive, or inappropriate, CITY shall either return the bill to CONTRACTOR with a request for explanation or adjust the payment accordingly, and give notice to CONTRACTOR of the adjustment.

4.04 If the work is satisfactorily completed, CITY shall pay such invoice within thirty (30) days of its receipt. Should CITY dispute any portion of any invoice, CITY shall pay the undisputed portion within the time stated above, and at the same time advise CONTRACTOR in writing of the disputed portion.

5. Obligations of CONTRACTOR.

5.01 CONTRACTOR agrees to perform all Services in accordance with the terms and conditions of this Agreement and the Proposal. In the event that the terms of the Proposal shall conflict with the terms of this Agreement, or contain additional terms other than the Services to be rendered and the price for the Services, the terms of this Agreement shall govern and said additional or conflicting terms shall be of no force or effect.

5.02 Except as otherwise agreed by the parties, CONTRACTOR will supply all personnel, materials and equipment required to perform the Services. CONTRACTOR shall provide its own offices, telephones, vehicles and computers and set its own work hours. CONTRACTOR will determine the method, details, and means of performing the

Services under this Agreement.

5.03 CONTRACTOR shall keep CITY informed as to the progress of the Services by means of regular and frequent consultations. Additionally, when requested by CITY, CONTRACTOR shall prepare written status reports.

5.04 CONTRACTOR is responsible for paying, when due, all income and other taxes, fees and withholding, including withholding state and federal taxes, social security, unemployment and worker's compensation, incurred as a result of the compensation paid under this Agreement. CONTRACTOR agrees to indemnify, defend and hold harmless CITY for any claims, costs, losses, fees, penalties, interest, or damages suffered by CITY resulting from CONTRACTOR's failure to comply with this provision.

5.05 In the event CONTRACTOR is required to prepare plans, drawings, specifications and/or estimates, the same shall be furnished in conformance with local, state and federal laws, rules and regulations.

5.06 CONTRACTOR represents that it possesses all required licenses necessary or applicable to the performance of Services under this Agreement and the Proposal and shall obtain and keep in full force and effect all permits and approvals required to perform the Services herein. In the event CITY is required to obtain an approval or permit from another governmental entity, CONTRACTOR shall provide all necessary supporting documents to be filed with such entity.

5.07 CONTRACTOR shall be solely responsible for obtaining Employment Eligibility Verification information from CONTRACTOR's employees, in compliance with the Immigration Reform and Control Act of 1986, Pub. L. 99-603 (8 U.S.C. 1324a), and shall ensure that CONTRACTOR's employees are eligible to work in the United States.

5.08 In the event that CONTRACTOR employs, contracts with, or otherwise utilizes any CalPers retirees in completing any of the Services performed hereunder, such instances shall be disclosed in advance to the CITY and shall be subject to the CITY's advance written approval.

5.09 Drug-free Workplace Certification. By signing this Agreement, the CONTRACTOR hereby certifies under penalty of perjury under the laws of the State of California that the CONTRACTOR will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.) and will provide a drug-free workplace.

5.10 CONTRACTOR shall comply with all applicable local, state and federal laws, rules, regulations, entitlements and/or permits applicable to, or governing the Services authorized hereunder.

6. Insurance. CONTRACTOR hereby agrees to be solely responsible for the health and safety of its employees and agents in performing the Services under this Agreement and shall comply with all laws applicable to worker safety including but not limited to Cal-OSHA. Therefore, throughout the duration of this Agreement, CONTRACTOR hereby covenants and

agrees to maintain insurance in conformance with the requirements set forth below. If existing coverage does not meet the requirements set forth herein, CONTRACTOR agrees to amend, supplement or endorse the existing coverage to do so. CONTRACTOR shall provide the following types and amounts of insurance:

6.01 Commercial general liability insurance in an amount of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate; CONTRACTOR agrees to have its insurer endorse the general liability coverage required herein to include as additional insured's CITY, its officials, employees and agents. CONTRACTOR also agrees to require all contractors and subcontractors to provide the same coverage required under this Section 6.

6.02 Business Auto Coverage in an amount no less than \$1 million per accident. If CONTRACTOR or CONTRACTOR's employees will use personal autos in performance of the Services hereunder, CONTRACTOR shall provide evidence of personal auto liability coverage for each such person.

6.03 Workers' Compensation coverage for any of CONTRACTOR's employees that will be providing any Services hereunder. CONTRACTOR will have a state-approved policy form providing statutory benefits as required by California law. The provisions of any workers' compensation will not limit the obligations of CONTRACTOR under this Agreement. CONTRACTOR expressly agrees not to use any statutory immunity defenses under such laws with respect to CITY, its employees, officials and agents.

6.04 Optional Insurance Coverage. Choose and check one: Required  /Not Required ; Errors and omissions insurance in a minimum amount of \$2 million per occurrence to cover any negligent acts or omissions committed by CONTRACTOR, its employees and/or agents in the performance of any Services for CITY.

## 7. General Conditions pertaining to Insurance Coverage

7.01 No liability insurance coverage provided shall prohibit CONTRACTOR from waiving the right of subrogation prior to a loss. CONTRACTOR waives all rights of subrogation against CITY regardless of the applicability of insurance proceeds and shall require all contractors and subcontractors to do likewise.

7.02. Prior to beginning the Services under this Agreement, CONTRACTOR shall furnish CITY with certificates of insurance, endorsements, and upon request, complete copies of all policies, including complete copies of all endorsements. All copies of policies and endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf.

7.03. All required policies shall be issued by a highly rated insurer with a minimum A.M. Best rating of "A:VII"). The insurer(s) shall be admitted and licensed to do business in California. The certificates of insurance hereunder shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice has been given to CITY.

7.04 Self-insurance does not comply with these insurance specifications.

CONTRACTOR acknowledges and agrees that that all insurance coverage required to be provided by CONTRACTOR or any subcontractor, shall apply first and on a primary, non-contributing basis in relation to any other insurance, indemnity or self-insurance available to CITY.

7.05 All coverage types and limits required are subject to approval, modification and additional requirements by CITY, as the need arises. CONTRACTOR shall not make any reductions in scope of coverage (e.g. elimination of contractual liability or reduction of discovery period) that may affect CITY's protection without CITY's prior written consent.

7.06 CONTRACTOR agrees to provide immediate notice to CITY of any claim or loss against CONTRACTOR or arising out of the Services performed under this Agreement. CITY assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve CITY.

## 8. Indemnification.

8.01 CONTRACTOR and CITY agree that CITY, its employees, agents and officials should, to the extent permitted by law, be fully protected from any loss, injury, damage, claim, lawsuit, cost, expense, attorneys' fees, litigation costs, defense costs, court costs or any other costs arising out of or in any way related to the performance of this Agreement by CONTRACTOR or any subcontractor or agent of either. Accordingly, the provisions of this indemnity are intended by the parties to be interpreted and construed to provide the fullest protection possible under the law to CITY. CONTRACTOR acknowledges that CITY would not enter into this Agreement in the absence of the commitment of CONTRACTOR to indemnify and protect CITY as set forth herein.

a. To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify and hold harmless CITY, its employees, agents and officials, from any liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses, damages or costs of any kind, whether actual, alleged or threatened, actual attorneys' fees incurred by CITY, court costs, interest, defense costs, including expert witness fees and any other costs or expenses of any kind whatsoever without restriction or limitation incurred in relation to, as a consequence of or arising out of or in any way attributable actually, allegedly or impliedly, in whole or in part to the performance of this Agreement. CONTRACTOR's obligation to defend, indemnify and hold harmless shall include any and all claims, suits and proceedings in which CONTRACTOR (and/or CONTRACTOR's agents and/or employees) is alleged to be an employee of CITY. All obligations under this provision are to be paid by CONTRACTOR as they are incurred by CITY.

b. Without affecting the rights of CITY under any provision of this Agreement or this Section, CONTRACTOR shall not be required to indemnify and hold harmless CITY as set forth above for liability attributable solely to the fault of CITY, provided such fault is determined by agreement between the parties or the findings of a court of competent jurisdiction.

9. Additional Services, Changes and Deletions.

9.01 In the event CONTRACTOR performs additional or different services than those described herein without the prior written approval of the City Manager and/or City Council of CITY, CONTRACTOR shall not be compensated for such services. CONTRACTOR expressly waives any right to be compensated for services and materials not covered by the scope of this Agreement or authorized by the CITY in writing.

9.02 CONTRACTOR shall promptly advise the City Manager and Finance Director of CITY as soon as reasonably practicable upon gaining knowledge of a condition, event or accumulation of events which may affect the scope and/or cost of Services. All proposed changes, modifications, deletions and/or requests for additional services shall be reduced to writing for review and approval by the CITY and/or City Council.

10. Termination of Agreement.

10.01 Notwithstanding any other provision of this Agreement, CITY, at its sole option, may terminate this Agreement with or without cause, or for no cause, at any time by giving twenty (20) days' written notice to CONTRACTOR.

10.02 In the event of termination, the payment of monies due CONTRACTOR for undisputed Services performed prior to the effective date of such termination shall be paid within thirty (30) business days after receipt of an invoice as provided in this Agreement. Immediately upon termination, CONTRACTOR agrees to promptly provide and deliver to CITY all original documents, reports, studies, plans, specifications and the like which are in the possession or control of CONTRACTOR and pertain to CITY.

11. Status of CONTRACTOR.

11.01 CONTRACTOR shall perform the Services in CONTRACTOR's own way as an independent contractor, and in pursuit of CONTRACTOR's independent calling, and not as an employee of CITY. However, CONTRACTOR shall regularly confer with CITY's City Manager as provided for in this Agreement.

11.02 CONTRACTOR agrees that it is not entitled to the rights and benefits afforded to CITY's employees, including disability or unemployment insurance, workers' compensation, retirement, CalPers, medical insurance, sick leave, or any other employment benefit. CONTRACTOR is responsible for providing, at its own expense, disability, unemployment, workers' compensation and other insurance, training, permits, and licenses for itself and its employees and subcontractors.

11.03 CONTRACTOR hereby specifically represents and warrants to CITY that it possesses the qualifications and skills necessary to perform the Services under this Agreement in a competent, professional manner, without the advice or direction of CITY and that the Services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent professional rendering the same or similar services in the same geographic area where the CITY is located. Further, CONTRACTOR represents and warrants that the individual

signing this Agreement on behalf of CONTRACTOR has the full authority to bind CONTRACTOR to this Agreement.

12. Ownership of Documents; Audit.

12.01 All draft and final reports, plans, drawings, studies, maps, photographs, specifications, data, notes, manuals, warranties and all other documents of any kind or nature prepared, developed or obtained by CONTRACTOR in connection with the performance of Services performed for the CITY shall become the sole property of CITY, and CONTRACTOR shall promptly deliver all such materials to CITY upon request. At the CITY's sole discretion, CONTRACTOR may be permitted to retain original documents, and furnish reproductions to CITY upon request, at no cost to CITY.

12.02 Subject to applicable federal and state laws, rules and regulations, CITY shall hold all intellectual property rights to any materials developed pursuant to this Agreement. CONTRACTOR shall not such use data or documents for purposes other than the performance of this Agreement, nor shall CONTRACTOR release, reproduce, distribute, publish, adapt for future use or any other purposes, or otherwise use, any data or other materials first produced in the performance of this Agreement, nor authorize others to do so, without the prior written consent of CITY.

12.03 CONTRACTOR shall retain and maintain, for a period not less than four years following termination of this Agreement, all time records, accounting records and vouchers and all other records with respect to all matters concerning Services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as CITY may deem necessary, CONTRACTOR shall make available to CITY's agents for examination all of such records and shall permit CITY's agents to audit, examine and reproduce such records.

13. Miscellaneous Provisions.

13.01 This Agreement, which includes all attached exhibits, supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of Services by CONTRACTOR for CITY and contains all of the covenants and agreements between the parties with respect to the rendering of such Services in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.

13.02 CONTRACTOR shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of CITY. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

13.03 CONTRACTOR shall timely file FPPC Form 700 Conflict of Interest Statements with CITY if required by California law and/or the CITY's conflict of interest policy.

13.04 If any legal action or proceeding, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will

be entitled to reasonable attorneys' fees and costs, in addition to any other relief to which that party may be entitled.

13.05 This Agreement is made, entered into and shall be performed in the County of Riverside in the State of California and shall in all respects be interpreted, enforced and governed under the laws of the State of California.

13.06 CONTRACTOR covenants that neither it nor any officer or principal of its firm has any interest, nor shall they acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of their Services hereunder. CONTRACTOR further covenants that in the performance of this Agreement, no person having such interest shall be employed by it as an officer, employee, agent, or subcontractor.

13.07 CONTRACTOR has read and is aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the Government Code relating to conflicts of interest of public officers and employees. CONTRACTOR agrees that they are unaware of any financial or economic interest of any public officer or employee of the CITY relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement, the CITY may immediately terminate this Agreement by giving notice thereof. CONTRACTOR shall comply with the requirements of Government Code section 87100 et seq. and section 1090 in the performance of and during the term of this Agreement.

13.08 Improper Consideration. CONTRACTOR shall not offer (either directly or through an intermediary) any improper consideration such as, but not limited to, cash, discounts, services, the provision of travel or entertainment, or any items of value to any officer, employee or agent of the CITY in an attempt to secure favorable treatment regarding this Agreement or any contract awarded by CITY. The CITY, by notice, may immediately terminate this Agreement if it determines that any improper consideration as described in the preceding sentence was offered to any officer, employee or agent of the CITY with respect to the proposal and award process of this Agreement or any CITY contract. This prohibition shall apply to any amendment, extension or evaluation process once this Agreement or any CITY contract has been awarded. CONTRACTOR shall immediately report any attempt by any CITY officer, employee or agent to solicit (either directly or through an intermediary) improper consideration from CONTRACTOR.



IN WITNESS WHEREOF, the parties hereby have made and executed this Agreement to be effective as of the day and year first above-written.

**CITY:**

CITY OF BEAUMONT

By: \_\_\_\_\_  
Lloyd White, Mayor

**CONTRACTOR:**

T.R. Holliman & Associates, Inc.

\_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT "A"**

**PROPOSAL**



September 19, 2022

Mr. Jeff Hart, Director of Public Works  
City of Beaumont  
550 E. 6th Street  
Beaumont, CA 92223

Subject: Proposal for Recycled Water Program Implementation Facilitator Services for the City of Beaumont

Dear Mr. Hart,

The T.R. Holliman and Associates, Inc. (TRHA) is pleased to submit this proposal to provide Recycled Water Program Implementation Facilitator Services to the City of Beaumont. We understand the importance of maximizing the use of recycled water in the City from a regulatory compliance perspective, but more importantly, to allow for continued development. We also understand that it the objective of the facilitator to assist the three agencies the City Beaumont (City), Beaumont-Cherry Valley Water District (BCVWD), and the San Gorgonio Pass Water Agency (SGPWA) in developing a mutually agreeable framework to form the basis of interagency agreements to maximize the benefit of recycled water in the City. To accomplish this, the City needs a team of professionals that are experienced in recycled water master planning, know how to assess wastewater demands, validate recycled water demands, familiar are with recycled water production, storage, groundwater recharge, and recycled water rate studies, and has worked with developing interagency agreements and multi-agency recycled water programs. TRHA has that experience and familiarity with local and state regulatory agencies and how to obtain funding and implement recycled water programs.

Selecting TRHA will provide the City with the following benefits:

#### **Local Knowledgeable and Responsive Project Team**

Founded in 2005, TRHA has carefully selected a team of specialists that will provide the City with personnel that are close to its operations and have the local experience needed to ensure that the interagency coordination is successfully completed on time and within budget. The principals of the TRHA team are located less than 60 minutes from the City. Our Project Manager, Tom Holliman, has over 40 years of professional experience including over two decades of local experience in the Inland Empire recently serving as Engineering and Operations Manager for the East Valley Water District in Highland, CA. He has also served as District Engineer for the San Gorgonio Pass Water Agency as part of Boyle Engineering, now AECOM from 2003 to 2005. TRHA also recently completed a recycled water implementation roadmap for the BCVWD and participated in the completion of the Urban Water Master Plan for the City of Banning. Mr. Holliman helped develop the purple color-coding system for recycled water systems while with the Irvine Ranch Water District is considered an expert in recycled water conversions.

### **Our Familiarity with Regional Agencies and Funding Options**

TRHA has worked with numerous agencies and agency representatives that could play a role in the development of the City's Recycled Water Program, including the Regional Water Quality Control Board – Santa Ana Region and the State Water Resources Control Board Division of Drinking Water. The TRHA team has helped numerous communities obtain over \$182M in funding needed to implement their recycled water plans.

### **Unique combination of Public and Private Recycled Water Planning Experience**

For this project we have assembled a Project Team of experts with over 100 years of combined public/private agency experience in recycled water systems, wastewater engineering, and groundwater management. Our Project Manager, Tom Holliman, PE, will be joined by Mr. John Robinson, who has over 30 years of experience in recycled water systems and is also considered an expert in recycled water conversions, regulatory compliance, and has assisted clients in receiving multiple grants for recycled water projects.

### **Acknowledgements**

- We acknowledge that we have thoroughly examined and accept the Terms and Conditions of the City's contract, and when selected will enter into an Agreement with City as shown in the RFP. We take no exceptions to the terms of the sample agreement, and our proposal is valid for 120 days from the date of this letter. All required insurance coverages will be in place at the time a contract is executed.
- T.R. Holliman and Associates, Inc. will function as the Prime Consultant. John Robinson Consulting, Bachtel Wastewater Engineers, Tuckfield and Associates, and Ben Pak and Associates, will be subconsultants. We acknowledge that the City intends to contract with a single firm and not with multiple firms doing business as a joint venture. We recognize and accept that the provisions of the Agreement will apply to our subconsultants in the same manner as they will apply to T.R. Holliman and Associates, Inc., as the "Proposer."

We are confident that we can provide the Recycled Water Program Implementation Facilitator Services and achieve the City's desired outcomes. Should there be any questions, please feel free to contact me, Project Manager, and designated point of contact, at (909) 573-6802 or at [trholliman@gmail.com](mailto:trholliman@gmail.com). We have authorized Thomas R. Holliman to make legally binding commitments for T.R. Holliman and Associates, Inc.

Sincerely,  
T.R. Holliman and Associates, Inc.



Thomas R. Holliman, PE  
President/Managing Engineer





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*This section is comprised of the Introduction and Information on TRHA. It includes a statement of our understanding of the objectives of the project and how the objectives will be accomplished. It also includes information on TRHA and our subconsultants. We understand that any proposed subconsultants would have to be approved by the City.*

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### **Introduction and Information**

The City of Beaumont was incorporated in November 1912. The City is located in the western portion of Riverside County and is bounded on the west by Calimesa and unincorporated areas, on the north by the unincorporated County areas (Cherry Valley), on the south by unincorporated County areas and the City of San Jacinto, and on the east by the City of Banning. The land area within the City's boundaries is approximately 26 square miles.



*Figure 1 – City of Beaumont Wastewater Treatment Plant*

In November 1997, the City of Beaumont City Council adopted Ordinance 773 mandating the use of potable water for non-potable uses including cemeteries, golf courses, parks, street and highway landscaping, athletic fields, and other irrigation uses is a waste or an unreasonable use of water if recycled water is available.

The City of Beaumont provides wastewater collection, treatment and disposal for wastewater generated within the City plus the

Highland Springs area of Cherry Valley. Wastewater flows by gravity to the City's wastewater treatment plant; however, there are nine (9) lift stations in the southeastern and western portions of the City that pump wastewater collected in these areas and to the treatment plant or collection system leading to the treatment plant.

The City of Beaumont Wastewater Treatment Plant No. 1 treats approximately 3.3 million gallons per day (MGD), see *Figure 1*. The City is required to maintain 1.8 MGD flow into the Cooper Creek to maintain the habitat. The City is in the process of upgrading its WWTP from 4 MGD to 6 MGD and designing a pipeline to connect to the Inland Empire Brine Line (IEBL) in San Bernardino to discharge the brine that will be treated at

the Orange County Sanitation District (OCSD) Treatment Plant.

The WWTP was previously upgraded with the intent to produce recycled water to meet Title 22 requirements. A study completed in 2016 found seven (7) items that needed to be addressed before the plan could meet the requirements. Among these include the



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

construction of a coagulation system, modification of existing SCADA and alarms to provide adequate monitoring and diversion of non-compliant water, and the construction of a recycled water storage and distribution system

***TRHA will focus on developing a list of potential actions that the three agencies can evaluate to develop a mutually agreeable plan of action to fully utilize recycled water in the region.***

The current facility consists of the following components:

- Primary Treatment: Headworks Screening, Flow Metering, Influent Pumping
- Secondary Treatment: Extended Aeration Basins, Secondary Clarifiers
- Tertiary Treatment: Sand Filtration, UV Disinfection, Flow Metering, Cascade Aeration

The new WWTP proposed upgrades and expansion include installation of membrane (MBR) system and reverse osmosis (RO) system and will produce recycled water.

The City recognizes that there is a demand for recycled water for landscape irrigation during the summer months, but more limited demand during the winter months. In order to maximize the value of the recycled water from the treatment plant the City, in partnership with BCVWD and SGPWA, seek to find other strategies that will maximum the benefits of the recycled water and provide revenues to offset some of the cost of treatment and disposal.

In a 2007 letter from CDPH (now SWRCB DDW) to the City of Beaumont, the City was directed to upgrade the facility to meet Title 22 requirements for unrestricted use and perform validation testing on the UV disinfection system. In July 2016, the City completed a Title 22 Engineering Report which included the UV Validation Testing which was accepted by the SWRCB DDW with conditions. Some upgrades to the tertiary system were identified.

The City of Beaumont's effluent has a TDS concentration of about 400 mg/L which is more than the Regional Board's Maximum Benefit Water Quality Objectives for the Beaumont Basin. The recycled water from the City will have to be treated and/or "blended" with imported water or other waters to achieve the Maximum Benefit Water Quality Objectives.

The focus of the Recycled Water Program Implementation Facilitator will be identifying the potential for expanded

***The focus of the Recycled Water Program is ensuring that all non-potable demands that can be served from the City's treatment plant have been identified.***

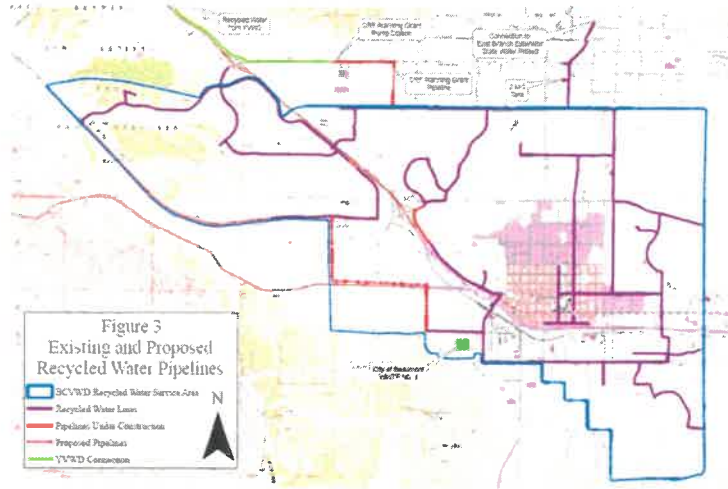
recycled water use in the City and the distribution system additions needed to supply that demand. Further the analysis will evaluate the storage needs for continuous demand and the potential for groundwater recharge during winter months when production will exceed demand.

TRHA will utilize a proven approach to complete the Recycled Water Use Analysis. The approach encompasses the following five steps:



## City of Beaumont Recycled Water Program Implementation Facilitator Services

1. Assessment of Available Recycled Water Supplies.
2. Assessment and Verification of Potential Recycled Water Demands.
3. Evaluation of Treatment Requirements for Potential Recycled Water Customers.
4. Development of Recycled Water Distribution System options, and
5. Potential for groundwater recharge including potential locations and quantities.



*Figure 2 – Existing BCVWD Non-Potable*

### Firm Profile and Key Personnel Experience

#### *Introduction to the TRHA Team*

To provide the City with a team that will focus on integrity, intensity, and results, we have assembled a team of experts in recycled water planning, design, construction, operations, administration, permitting, and regulatory compliance. TRHA is comprised of four specialized firms with over 100 years of combined experience in recycled water:

- Thomas R. Holliman, PE,  
T.R. Holliman and Associates
- John Robinson  
John Robinson Consulting, Inc.
- Dave Bachtel, PE  
Bachtel Wastewater Engineers
- G. Clayton Tuckfield, PE  
Tuckfield and Associates
- Ben Pak  
Ben Pak and Associates

Instead of a pool of engineers with only limited specific recycled water experience, TRHA provides an expert panel that can bring their collective experience to bear on the City's Recycled Water Program. This "based in reality" approach will reflect both the economics and technical analysis needed for a successful recycled water program. We bring the collective experiences of dozens of agencies to ensure that the City's recycled water program is based on solid proven results.

#### *Local Resources and Knowledge*

T.R. Holliman and Associates, Inc. is a California S-Corporation established in 2005. We are registered Small Business Enterprise and Disadvantaged Business Enterprise.





## City of Beaumont Recycled Water Program Implementation Facilitator Services



TRHA’s principal office is located in Highland, CA where we specialize in recycled water planning, design, construction management, and operations. TRHA maintains Professional Liability, General Liability, Automobile Liability, and Workman’s Compensation insurance with a limit of \$1,000,000 per occurrence or more depending on the specific insurance. All are currently in force.

TRHA’s past success has been built on projects exclusively within Southern California. Because of the firm’s long history of service to municipal water and wastewater business in Southern California, we recognize that the State of California has a heightened awareness of the environment and has implemented the necessary regulations to create a healthy balance between nature and industry. In response, we have developed and honed competencies in the environmental service sector to help our clients meet the rigorous regulations California has adopted. While providing these services, TRHA has worked extensively with regional regulatory agencies, including the Regional Water Quality Control Board – Santa Ana Region the State Water Resources Control Board Division of Drinking Water and Orange County Healthcare Agency.

### *Experience and Expertise in Recycled Water Master Planning and Use Analysis Studies*

*We have been performing recycled water services in Southern California for 40 years. Our proposed project staff was carefully selected due to their experience with master planning and recycled water use analysis.*

From market assessments through feasibility studies to the development of comprehensive facility master plans, design and construction of recycled water infrastructure, our team offers unparalleled local experience in the development of recycled water projects.

We have successfully implemented numerous recycled feasibility and planning projects similar in

*Our team members have managed recycled water programs for City and Special Districts in Southern California give us a unique Consultant and Owner perspective.*

complexity to the City’s Recycled Water Program. While we have the technical expertise to perform all the requested services, a key factor that differentiates us from our competitors is the fact that our team

members have also managed recycled water programs for cities, and Special Districts, giving us a clear understanding from both sides of the Project Consultant and Owner.

### *The Right People for the Project*

TRHA and our clients have enjoyed success in the implementation and long-term



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

operation of recycled water projects as the result of following an approach that utilizes the right people for the right job.

We have the recycled water expertise to perform all the requested services as stated in the scope of work. Our expertise extends past the items detailed in the City's scope of work, allowing us to offer a comprehensive range of services during its Recycled Water Program.

*A successful recycled program must create a base of verified customers who will use recycled water when it is available.*

Our team is particularly skilled in the fields of recycled water planning, design, and construction. Brief highlights of TRHA's qualifications in the professional service areas impacting the City's Recycled Program are described in this section.

### *Developing Large-scale, Comprehensive Master Plans and Feasibility Studies*

Our ability to assist our clients in successfully implementing their master plans and feasibility studies distinguishes us from our competitors. Our master plans and use studies do not collect dust on bookshelves. They are put into implementation by our clients because our plans identify recycled water demands and distribution options, arrive at the most cost-effective infrastructure solutions to serve those demands, and provide a phased approach to infrastructure implementation.

We are experienced in each integral phase of master planning efforts from review and

analysis to funding and implementation. We are fully qualified to provide all the required professional services for the City's Recycled Water Implementation Program Facilitator.

TRHA has successfully completed several comprehensive master plans and onsite conversion projects throughout Southern California. These projects include recycled water for agencies such as:

- Orange County Water District (OCWD)
- Mesa Water District (Mesa Water)
- City of San Juan Capistrano (CSJC)
- Inland Empire Utilities Agency (IEUA)
- Long Beach Water Department (LBWD)
- Central Basin Municipal Water District (CBMWD)
- Castaic Lake Water Agency
- Rincon del Diablo Municipal Water District
- Cities of Fontana, Ontario, and Oxnard.

Our master plans have served as the framework for our clients' Capital Improvement Programs (CIPs). Clients have implemented our recommendations because they are designed to be practical, cost-effective, and address the key concerns of the involved stakeholders, as well as innovative engineering solutions.

### *Implementation of Recycled Water Systems*

TRHA has the recycled water implementation experience to develop appropriate recycled water master planning solutions for the City. We have designed



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

numerous customer conversions from potable to recycled water. Our team has been involved in over 800 customer conversions from potable to recycled water. These include:

- 200 elementary schools
- 40 junior high schools
- 50 high schools
- 250 parks
- 14 homeowner associations
- three oil refineries
- the first commercial laundry in California
- paper mills
- power plants
- industrial facilities, and
- hundreds of other irrigation customers.

Our conversion resume also includes the first use of recycled water to control ground subsidence, and the first professional ice hockey rink to use recycled water in Ontario, CA.

### *Recycled Water Regulatory Issues*

TRHA recognizes that the implementation of recycled water projects will need to comply with a variety of local, state, and federal regulations. We understand that assisting our clients in regulatory issues under tough permitting constraints has contributed to the success of our recycled water projects. Our extensive experience with the State Water Resources Control Board Division of Drinking Water (DDW), Regional Water Quality Control Board (RWQCB) and Orange County Healthcare Agency (OCHCA) have increased our understanding

of the involved processes, enabling us to provide sound guidance to our clients.

TRHA's recent experience working with regulatory agencies includes coordinating with the DDW and the County of Los Angeles DPH to successfully implement over 400 recycled water customer retrofits for West Basin Municipal Water District, CBMWD, USGVMWD, and IEUA as well as working with DDW and OCHCA to convert The Enclave for Irvine Ranch Apartment Communities within Mesa Water service area on the GAP system as well as Royalty Carpets within Irvine Ranch Water District which was a 256 acre-foot per year demand and 2<sup>nd</sup> largest within IRWD to be removed from potable water to recycled water while obtaining \$223,000 from Metropolitan Water District via their On-Site Recycled Water Retrofit Grant Program.

### *Recycled Water Funding*

TRHA has helped numerous Southern California cities, municipalities, and special districts to obtain millions of dollars in funding needed to implement their recycled water plans. We can successfully obtain funding due to our frequent experience with regional recycled water projects. We recently procured \$26.5M in funding for USGVMWD, where we assisted in State Revolving Fund (SRF) grant and loan application. Potential sources of funding include:

- State Water Resources Control Board – Proposition 1 (construction and construction management only)
- Department of Water Resources – Proposition 1 (planning, design,



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

- construction, and construction management)
- Metropolitan Water District – Local Resource Project (recycled water sales)
- Metropolitan Water District – Recycled Water Customer Retrofit
- US Bureau of Reclamation – Title XVI (planning, design, construction, and construction management)
- US Army Corps of Engineers
- US EPA WIFIA Program

Although not part of the current scope, TRHA can evaluate financing opportunities, such as grants, loans, user fees and recycled water rate increase and provide a financial analysis based on the recommended maintenance level, operating expenses, and planning level cost. TRHA can identify outside funding sources based on the nature of the projects. Specific funding sources can be explored, such as State Revolving Fund (SRF), federal and state grant monies, stimulus funds, and local funding from MWD.





## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

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*This section is comprised of our Approach. It includes a detailed description of the intended methodology to be utilized in addressing the project. It describes our perception of the work required and how our firm, personnel, and services will be utilized.*

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### **Approach**

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#### *Assessment of Available Recycled Water Supplies*

TRHA's first task will be to identify and evaluate the sources of recycled water supply to the City. In this case, this will consist of reviewing the recycled water supplied by the City's wastewater treatment plant from current capacity, through the planned expansion, and the ultimate capacity of the plant.

The recycled water will be distributed by the Beaumont Cherry Valley Water District (BCVWD) through their existing non-potable distribution system. BCVWD is currently pursuing approval from the Regional Water Quality Control Board/State Water Resources Control Board Division of Drinking Water (RWQCB/DDW) to mix recycled water with the non-potable supplies.

BCVWD has an extensive network of about 30 miles of non-potable transmission pipelines within the City already constructed that can convey untreated SPW, groundwater, and recycled water. An extensive network of smaller distribution mains has been constructed by Tract developers to serve parks, medians, schools, and common areas in their respective developments. The system includes a 2-million-gallon non-potable water reservoir

(2800 Zone Non-Potable Reservoir). There are about 300 existing landscape connections to the recycled water system receiving 1,650 acre-ft of water (year 2013 total). The existing recycled water system is currently pressurized with groundwater from Well 26. This is supplemented with potable water introduced into the non-potable water system through an air gap connection at the non-potable water storage tank (2800 Zone Non-Potable Water Tank). It is assumed that all the future recycled water customers will be served from this distribution system as shown in *Figure 2*.

#### *Assessment of Potential Recycled Water Customers*

TRHA's second step in assisting to maximize the use of recycled water master is to develop potential recycled water demands. Proper identification of potential recycled water demands is the basis of developing a recycled water system. The success of recycled water systems is based on identification and verification of real customers that have a willingness to use recycled water.

TRHA understands that the potential recycled water customers within the City are likely to be categorized into the following three categories; the approaches to convert each of these customers are different:

- Landscape Irrigation, such as schools, parks, golf courses, street medians, and multi-family irrigation;
- Industrial/Commercial Process Water, such as cooling towers and water used in producing product such as concrete, carpet washing, chemical milling; and
- Agricultural.



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

TRHA's approach will be to first develop a recycled water customer database, identifying potential recycled water customers with demands greater than two acre-feet/year. The database will include not only the location and demand of customers, but also the use of the water and specific water quality requirements for each of the potential customers.

The primary source of information will come from the BCVWD's existing potable water billing database, focusing on the top potable water customers, with customers geocoded to the location of the service connection. We will estimate the potential recycled water usage based on existing potable water demands of customers and our experience regarding the percentage of potable water demands that can be successfully converted to recycled water.

Another potential recycled water use consists of converting industrial/commercial users from potable water to recycled water. The primary industrial/commercial uses would be industrial cooling both in the manufacturing process and for cooling towers. There may also be industrial users which could use recycled water for producing products such as concrete, carpet cleaning.

### ***Development of Recycled Water Distribution System Modifications***

TRHA's third step will be developing potential recycled water distribution system modifications. TRHA will develop preliminary layouts of pipelines to connect the largest number of potential recycled water customers. Pipeline sizing will be based on average flow calculations. A hydraulic model is not part of this scope of work. However, it is recommended that the BCVWD verify the pipeline sizing with their

hydraulic model. The recommended recycled water system alternative will be selected based on the lowest cost while serving the most recycled water.

Based on our experience, the largest recycled water customers drive the creation of a recycled water system.

### ***Storage Assessment for Continuous Supply***

TRHA will evaluate the existing wastewater treatment plant, and the proposed expansion, to determine the storage capacity necessary to meet a continuous recycled water demand. Since the system will be providing water to landscape customers and potentially groundwater recharge, along with stream discharges, the ability to store recycled water during the diurnal production pattern will be necessary. Once the total demand on the system is developed both in the short term and long term the storage capacity needed at the plant can be determined.

### ***Storage Assessment During Rainy Seasons (injections, spreading/percolation)***

One of the strategies to provide long term supply for the Beaumont Basin is groundwater recharge with storm water, State Water Project Water, and potentially recycled water. TRHA will evaluate the impact on storage requirements during the winter months if recycled water not used for irrigation or other beneficial uses can be percolated into the groundwater. TRHA will confer with BCVWD and the SGPWA to identify potential recharge rates and based on that data formulate storage recommendations.



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

### *Communication Strategy*

While facilitating the discussions between three agencies TRHA will work closely with City staff as well as representatives from BCVWD and SGPWA. To maintain proper communication with City staff TRHA will provide:

- Monthly summaries of work with invoices
- Progress meetings at key deliverables to review the materials prior to the City review
- Finally, close-out presentations and delivery of all project materials.

### *Direct Injection vs. Surface Spreading*

The BCVWD and the SGPWA both operate spreading grounds in the Beaumont Basin. Both agencies are planning to spread both stormwater and State Water Project Water. For the City to maximize wintertime recycled water production, the excess winter flows must be stored in the groundwater basin. With stormwater and State Water Project water competing for spreading basin, space the City might consider direct injection of recycled water into the basin. Aquifer Storage and Recovery (ASR) projects are currently planned for several areas in California.

### *Building Consensus*

In order to be considered successful the Recycled Water Program will have to effectively meeting the objectives of the City of Beaumont, Beaumont Cherry Valley Water District, and the San Geronio Pass Water Agency. Although the stakeholders of each agency are the same. The strategic

objectives of each agency are specific to their strategic mission. For the City, it is maintaining and enhancing the quality of life for the residents of the City. For Beaumont Cherry Valley Water District, it is providing safe and reliable water supply at a reasonable cost. For the San Geronio Pass Water Agency, it is to maintain and enhance local groundwater supplies.

To reach mutual agreement for a plan to move forward TRHA will assist the parties in:

- identifying their specific objectives
- identifying specific concerns
- evaluating what facilities, they may need to utilize the recycled water
- how those projects fit into their existing planning and budgets
- detail out responsibilities

The final plan may not include everything each agency wants, but it must meet enough of their individual objectives list for them to support the final combined plan.

The 1994 Nobel Memorial Prize in Economic Sciences winner John Nash developed a unique method for analyzing multi-party negotiations. Depicted in the movie, "A Beautiful Mind" starring Russell Crowe, Nash determined that if each party in the negotiations only focused on getting everything, they wanted no one would achieve their goals and everyone would lose because it would result in a stalemate. The only way for everyone to achieve, at least a majority of their desired outcomes, was to work to together. Through working to find common ground first, then asking the parties to rank their negotiable and non-negotiable





## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

items, and then participating in meetings with open and honest discussions, TRHA can help develop a final plan that would be a win-win-win outcome and move the Recycled Water Program forward.





## City of Beaumont Recycled Water Program Implementation Facilitator Services

*Within this section we introduce the TRHA team, and our team resume, which includes our experience and expertise in recycled water master planning and feasibility studies, references, and proposed project team.*

### Firm Profile and Key Personnel Experience

#### *Introduction to the TRHA Team*

To provide the City with a team that will focus on integrity, intensity, and results, we have assembled a team of experts in recycled water planning, design, construction, operations, administration, permitting, and regulatory compliance. TRHA is comprised of four specialized firms with over 100 years of combined experience in recycled water:

- Thomas R. Holliman, PE, (40+ years)  
T.R. Holliman and Associates
- John Robinson (30+ years)  
John Robinson Consulting, Inc.
- Dave Bachtel, PE (40+ years)  
Bachtel Wastewater Engineers
- G. Clayton Tuckfield, PE (25+ years)  
Tuckfield and Associates
- Ben Pak (25+ years)  
Ben Pak and Associates

TRHA provides an expert panel that can bring their collective experience to bear on the City's Recycled Water Program. This "realistic" approach will reflect both the economics and technical analysis needed for a successful recycled water use analysis. We bring the collective experiences of dozens of agencies to ensure that the City's recycled

water use analysis reflects solid proven results.

#### *Local Resources and Knowledge*

T.R. Holliman and Associates, Inc. is a California S-Corporation established in 2005. TRHA's principal office is located at **3543 Citrus Street, Highland, CA 92346** where we specialize in recycled water planning, design, construction management, and operations. TRHA maintains Professional Liability, General Liability, Automobile Liability, and Workman's Compensation insurance with a limit of \$1,000,000 per occurrence or more depending on the specific insurance. All are currently in force.

TRHA's past success has been built on projects exclusively within Southern California. Because of the firm's long history of service to municipal water and wastewater business in Southern California, we recognize that the State of California has a heightened awareness of the environment and has implemented the necessary regulations to create a healthy balance between nature and industry. In response, we have developed and honed competencies in the environmental service sector to help our clients meet the rigorous regulations California has adopted. While providing these services, TRHA has worked extensively with regional regulatory agencies, including the Regional Water Quality Control Board – Santa Ana Region the State Water Resources Control Board Division of Drinking Water and Orange County Healthcare Agency.

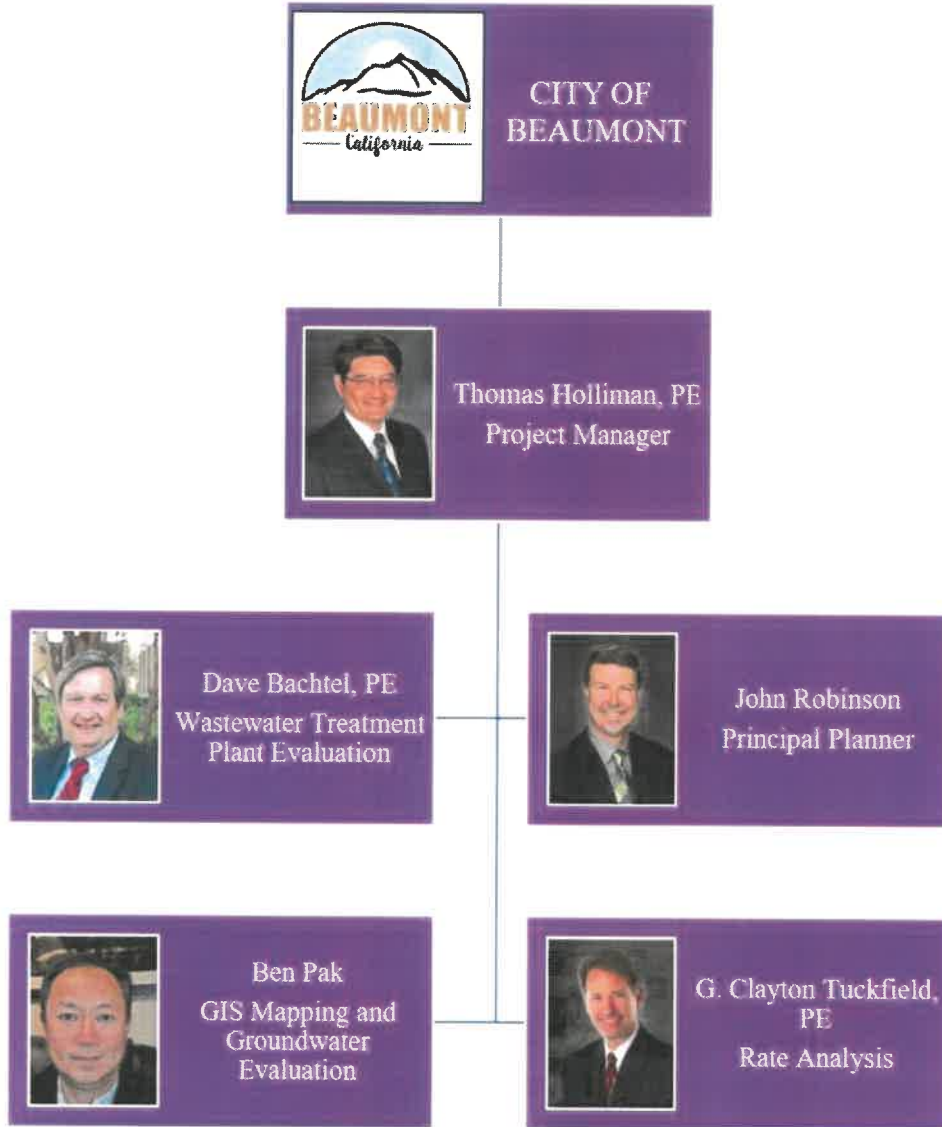
California cities, municipalities, and special districts to obtain millions of dollars in funding needed to implement their recycled



# City of Beaumont Recycled Water Program Implementation Facilitator Services

## The TRHA Team

We



*believe the most important aspect of any project is creating a team that involves the right people. We are professionals who are practiced in performing the requested services, experienced in their proposed role, and willing and readily available to perform the work requested.*

*Short biographies for the TRHA team are located on the pages following the organizational chart included below. Full resumes are included in the appendices.*

With a combined experience of over 100 years of recycled water experience both in the private sector and managing and building recycled water programs in the public sector we believe that we can provide the City with a Recycled Water Use Analysis.



*Thomas Holliman, PE,  
Project Manager*

Thomas Holliman was chosen as Project Manager because he has over forty (40) years of professional experience in the

planning, design, and operations of major recycled water, potable water, and sewer facilities throughout Southern California. Mr. Holliman is a recognized expert in California for recycled water/non-potable systems. In addition to receiving several WaterReuse Association awards for special projects of merit, Tom was instrumental in the development of the color “purple” as the identifier for non-potable systems which has become the national and international designation for recycled/non-potable facilities.

He previously served as Director of Engineering/Planning for the Long Beach Water Department, District Engineer/Assistant General Manager for the Water Replenishment District of Southern California, and recently Engineering and Operations Manager for the East Valley Water District. With Boyle Engineering, now AECOM, Mr. Holliman served as the District Engineer for the San Geronio Pass Water Agency. Mr. Holliman has also held senior technical and management positions in private consulting firms. He is accomplished in all facets of agency administrative functions from development of agency budgets, developing RFP’s for major capital projects, and working closely with elected and appointed agency Board of Directors.



*John Robinson,  
Principal Planner*

John Robinson was chosen as Principal Planner due to his 20 years of environmental engineering experience focused exclusively on water reclamation

and wastewater master planning projects and engineering for municipalities in California and Arizona. He has been involved in feasibility/master studies and planning, technology evaluation and recommendations, preparation of study and design reports, as well as process and mechanical design for new water reclamation and wastewater facilities and expansion of existing facilities. He has provided reclamation system computer hydraulic modeling and has been intimately involved with regulatory agencies with permitting jurisdiction over recycled water projects.

During his career he has completed over 550 recycled water customer conversions (i.e., water through the meter) as well as completed and additional 2,000 recycled water customer conversion assessments. He specializes in assisting clients with identifying and assessing customers, evaluating potential non-potable reuse system components as well as managed the customer development for all customer conversions; developed recycled water conversion plans worked with customers and developed conversion construction costs. John has developed and conducted training seminars for both client staff as well as end use customers. He is particularly adept at working closely with SWRCB DDW and OCHCA for coordination of site issues and approvals and understands how to make the regulatory approval process go smoothly.



**Dave Bachtel,**  
**PE**  
**Wastewater**  
**Treatment Plant**  
**Evaluation**

Dave is President of Bachtel Wastewater Engineers where he is dedicated to providing high

value engineering based on 40 years in the industry to clients of all sizes. His extensive experience includes research, planning, engineering, construction, and operation experience with wastewater CIP projects. Dave has been a Project Manager/ Biosolids lead for HDR Engineering and LEE & RO for 10 years and worked for 30 years in numerous positions at Los County Sanitation Districts where he most recently was Division Engineer responsible for wastewater treatment plant design.

Dave has participated in facilities planning, preliminary design, final design and engineering support for construction for more than 80 projects ranging from under \$1 million to more than \$150 million. He has been involved with research, operations, planning, procurement, design, value engineering, construction support, construction management, start-up and operation of pump stations, head works, odor control, primary treatment, secondary treatment, disinfection, solids processing facilities including sludge thickening, dewatering centrifuges, belt filter presses and plate and frame filter presses, anaerobic digestion, gas clean up, power generation, sludge dewatering, conveying storage, drying, combustion and composting, in addition to design of entire treatment plants. He is familiar with plant upgrades to tertiary and advanced treatment, including DDW Title 22 requirements.

He has been particularly effective in building consensus between operators and engineers for projects at large agencies such as Los Angeles County Sanitation Districts, Orange County Sanitation Districts and the City of Los Angeles, as well as small ones, such as Brawley and Holtville. He has extensive experience coordinating with funding agencies such as SRF and NADBank.



**G. Clayton**  
**Tuckfield, PE**  
**Recycled Water**  
**Rate Development**

Clayton is President and Principal Consultant of Tuckfield & Associates where he provides utility rate and capacity charge

consulting services. Clayton has managed or been directly involved in publicly owned utility financial services for over 30 years. Since 1985, Mr. Tuckfield has used innovative methods combined with time-tested strategies to assist municipalities and special districts in achieving their financial goals. Clients have included public utilities, state and county governments, municipalities, and public districts. Prior to forming Tuckfield & Associates, Clayton served Black & Veatch Corporation for 15 years in their Management Consulting Division. Mr. Tuckfield has worked with numerous cities and special districts in California and has authored papers and articles for AWWA (American Water Works Association) and California Special Districts Association (CSDA) and has conducted a webinar for CSDA regarding financing projects with USDA funding.



**Ben Pak, GIS  
Mapping,  
Groundwater  
Evaluation**

Ben Pak was chosen as Project Engineer for developing the hydraulic models for the Recycled Water Master Plan due to his experience with recycled water infrastructure and his overall expertise in master planning in the water and recycled water sectors. Mr. Pak has over 30 years of engineering experience in water, recycled water, wastewater, and groundwater recharge projects, involving the supervision and coordination of the planning, design, and construction of recycled water pipelines and facilities. He also has extensive experience in hydraulic modeling and planning and evaluating potable water, recycled water, and sewer systems.

Ben has been working with Tom and John for over 15 years on all aspects of recycled water development and implementation.







## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

### **Relevant Project Experience**

*Our project experience can be found on the following pages. We have selected nine recycled water projects to illustrate the extent of our experience providing recycled water use analysis services. Per the City's request, we have provided client references for four of these projects.*

#### **Inland Empire Utilities Agency, Chino, CA Reference**

Sylvie Lee, Manager of Planning  
Inland Empire Utilities Agency (IEUA)  
6075 Kimball Avenue, Chino, CA 91708  
(909) 993-1646



#### **Project Team - John Robinson**

#### **Summary**

The Project Team led by John Robinson developed IEUA's Recycled Water Implementation Plan. We developed the overall project approach and methodology, coordinated project tasks with IEUA, and provided the technical content of the report. As part of the approach, our team developed a 10-year implementation plan based on hydraulic modeling performed in InfoWater. The IEUA service area encompasses 242 square miles in the southwestern corner of San Bernardino County and is projected to develop significantly in the next 25 years. The Recycled Water Implementation Plan

provides an overview of IEUA's recycled water supplies, existing and estimated recycled water demands, and a recommended regional backbone system to distribute recycled water throughout the service area.

The proposed backbone system is sized for build-out demand conditions and delivers recycled water to all IEUA's member agencies and selected based on life-cycle cost evaluations. The proposed system goal was to serve the maximum amount of potential recycled water customers while meeting the pressure criteria and selecting the most cost-effective alignments by avoiding significant utility conflicts where possible.

The number of recycled water customers in this area is estimated to increase from 100 to over 2,000 users in 25 years, resulting in a recycled water demand increase from 7,900 acre-feet/year to 93,000 acre-feet/year. The proposed system consists of seven pressure zones, 110 MG of reservoir storage, equalization storage at the five regional plants, 13 booster stations with a combined capacity of 145 mgd (nearly 15,000 hp) and 35 regional pipeline projects totaling 92 miles and ranging from 12 to 60 inches in diameter. The 10-year implementation plan includes a seven-phase program with capital costs of \$200M. The capital cost of the CIP through build-out is \$325M.

In addition to the implementation plan, the Project Team was selected to design four pipelines, pump station and reservoir projects. The design component was later expanded to six design projects and program management services, including development of a customer geodatabase. The project work required a strong client/consultant partnership to develop a plan for the system as well as detailed designs of several major backbone facilities, which were to run in heavily populated/developed



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

areas. Thorough knowledge of recycled water customer physical locations and their demands were also required. The IEUA service area includes the Cities of Rancho Cucamonga, Ontario, and Montclair, California.

### *Upper San Gabriel Valley Municipal Water District, El Monte, CA*

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#### **Reference**

Tom Love, General Manager  
Upper San Gabriel Valley Municipal Water District  
11310 Valley Blvd, El Monte, CA 91731  
(626) 443-2297



#### **Project Team - John Robinson**

##### *Summary*

The Project Team led by John Robinson prepared a Recycled Water Master Plan for the CBMWD, the San Gabriel Valley Municipal Water District (SGVMWD), and the USGVMWD, covering an area of over 30 cities.

We updated the list of potential recycled water customers for CBMWD and created a list for the western half of the SGVMWD and USGVMWD service areas. The list of potential customers included many irrigation customers, but also expanded to include many industrial customers. After completing development of a potential customer list, our team developed several alternatives for

potential pipeline routings to serve the customers.

Hydraulic modeling was used to size the required pipelines, pump stations, and reservoirs. Once the hydraulic model and proposed facilities were complete, the Project Team performed an economic evaluation to determine the cost effectiveness of the proposed facilities, as well as ranking and phasing the facilities with the highest potential rate of return. The economic evaluation included cost estimating, hydraulic modeling to evaluate the effect of not installing certain facilities, and development of recommended phasing. The project resulted in a phased recommendation for expanding the recycled water system, including interconnections among the three regional agencies.

#### *Concept Development Plan for Advanced Water Reuse*

In 2008, a Project Team led by John Robinson was tasked to produce a concept development plan by a partnership between the USGVMWD, the Water Replenishment District of Southern California, and the Los Angeles County Sanitation Districts. This plan will examine more recent regulatory requirements, updated effluent data and newer membrane technologies. The process train will be microfiltration (MF) or ultrafiltration followed by reverse osmosis and advanced oxidation. The plan will also provide a site master plan to produce 46,000 acre-feet/year of highly treated water for groundwater discharge. Water will be provided both to the Water Replenishment District and the USGVMWD for groundwater recharge to replace sources that are no longer available.



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

### *City of Industry Recycled Water Project – Phase IIB*

In addition, we provided engineering design services for recycled water distribution facilities to serve existing landscape irrigation in the cities of West Covina, Walnut, and portions of Los Angeles County, with recycled water to substitute for other scarce, potable sources. Up to 3,700 acre-feet/year would be provided via 12.4 miles of 24-inch through 6-inch pipelines buried in existing streets.

### *City of Oxnard GREAT Program, Oxnard, CA*

#### **Reference**

Daniel Rydberg, Public Works Director  
City of Oxnard, CA  
305 West Third Street -- Third Floor  
Oxnard, CA 93030  
(805) 385-8280



### **Project Team – Tom Holliman**

#### *Summary*

The Project Team led by Tom Holliman provided full technical and administrative support for the on-site recycled water conversions for the City of Oxnard's Groundwater Recovery Enhancement and Treatment (GREAT) Program. This work consisted of identifying commercial/industrial, landscape irrigation,

schools, parks, and golf course irrigation conversion opportunities. After identifying the users TRHA conducted user interviews, mapped all the use sites, developed a master engineer's report for all the landscape irrigation sites, and individual reports for the schools, River Park Development, and the River Ridge Golf Course. Conversion plans were developed for all the parks and schools adjacent to the recycled water pipelines.

Numerous meetings and presentations were conducted with industrial/commercial users, school boards and operations staff. Preliminary cross connection testing was completed for the golf course and International Paper, and a unique protocol for testing was developed, and approved by the Health Department, for the River Park development to perform the cross-connection testing even though the system was already in operation and the potable water could not be turned off.

The project included full conversion design drawings for each site as well as a Master Engineers Report for all park sites. Individual Engineers Reports were prepared for each of the school sites, as the golf course and River Park Development. The project also included the Engineers Report for the International Paper Mill.



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

### *Castaic Lake Water Agency*

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#### **Reference**

Jason Yim, Principal Engineer  
27234 Bouquet Canyon Rd, Santa Clarita,  
CA 91350  
(661) 513-1277



**Project Team – Tom Holliman**

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#### **Recycled Water Program Development**

TRHA completed multiple recycled water program assignments for the Castaic Lake Water Agency. These included:

#### **Recycled Water Program Implementation Guidelines Engineering Road Map**

The project consisted of developing Recycled Water Program Implementation Guidelines Engineering Road Map to assist CLWA in the implementation of new water reuse projects and addressing challenges to overcome, such as engineering, planning and construction, finance, public outreach, operations, regulatory compliance and health protection, organizational and institutional issues, and political constraints and

opportunities. A final comprehensive Road Map was prepared that included reference materials, such as WaterReuse reference guides and applicable regulatory agency documents, in addition to functional checklists for key challenges and issues outlining the required steps and components necessary for the recycled water program development.

#### **Recycled Water Pre-Conversion Evaluation Project**

This project focused preparing a pre-conversion feasibility study for four major retrofit sites. The project included gathering information from site investigations and evaluations in addition to identifying any fatal flaws to the conversion of any of the four sites from domestic water to recycled water. The report evaluated the impact of the proposed recycled water quality on the plant materials and provided recommendations for any necessary modifications to the irrigation systems and replacement of certain plants that may be significantly affected by recycled water.

#### **Recycled Water Master Plan Update**

This project included identifying the total potential recycled water demand through multiple potential landscaping, park, and school conversions. Recycled water system alternatives were produced with the outcome of all previous information that would develop a distribution system which would deliver recycled water to the various use sites with the most cost-effective model.



## **City of Beaumont Recycled Water Program Implementation Facilitator Services**

*Per the City's request, we have provided references for four projects. The following projects are included to further demonstrate TRHA's experience with regional recycled water project.*

### **Recycled Water Customer Development**

*West Basin Municipal Water District, CA*



**Project Team - John Robinson**

#### ***Summary***

TRHA is currently assisting West Basin Municipal Water District (WBMWD) in the customer development of several recycled water customers. TRHA is providing the following services:

- Performing site inventory assessment,
- Developing detailed retrofit plans,
- Coordinating with the appropriate regulatory agencies,
- Preparing the engineering report or industrial engineering report needed to obtain California Department of Public Health Approval,
- Performing preliminary and final cross connection testing,
- Preparing construction estimates for on-site retrofits,

- Providing construction oversight and coordinating with contractor customers and WBMWD, and

### **Recycled Water Master Plan**

*Central Basin Municipal Water District, CA*

**Project Team - John Robinson**

#### ***Summary***

TRHA prepared a Recycled Water Master Plan for the CBMWD, the San Gabriel Valley Municipal Water District (SGVMWD), and the USGVMWD, covering an area of over 30 cities.

We updated the list of potential recycled water customers for CBMWD and created a list for the western half of the SGVMWD and USGVMWD service areas. The list of potential customers included many irrigation customers, but also expanded to include many industrial customers. After completing development of a potential customer list, our team developed several alternatives for potential pipeline routings to serve the customers.

Hydraulic modeling was used to size the required pipelines, pump stations, and reservoirs. Once the hydraulic model and proposed facilities were complete, TRHA performed an economic evaluation to determine the cost effectiveness of the proposed facilities, as well as ranking and phasing the facilities with the highest potential rate of return. The economic evaluation included cost estimating, hydraulic modeling to evaluate the effect of not installing certain facilities, and development of recommended phasing. The project resulted in a phased recommendation for expanding the recycled water system, including interconnections among the three regional agencies.



## City of Beaumont Recycled Water Program Implementation Facilitator Services

### Recycled Water Feasibility Study and Distribution System Design

City of Santa Paula, CA



Project Team - John Robinson

#### Summary

The Project Team led by John Robinson was hired by the City of Santa Paula to develop a facility planning report for a planned recycled water system. The purpose of this project is to reduce the City’s demand on the groundwater basin, allowing the City to expand both within and beyond the City limits. This report was developed to identify the details such as pipeline alignments, reservoir storage volumes, pumping conditions, and operational conditions of the proposed system.

To determine the top potential recycled water users, our team reviewed water usage data and conducted site visits to determine connection points, special site conditions, and the feasibility of connecting the customers.

We walked the proposed pipeline alignments to determine constructability, limit impacts to residents, reduce utility conflicts, and

increase access to potential recycled water customers. Based on this information our team recommended several modifications to the proposed pipeline alignment.

The Project Team reviewed plans of the wastewater treatment plant currently under construction and geotechnical reports. The recycled water demand and water availability was utilized in conjunction with other data to propose a reservoir size including volume, depth, radius, and freeboard. A hydraulic analysis was conducted of the proposed recycled water system to size the pump station and confirm pipeline sizing.

As part of this report our team identified potential funding sources, conducted a sensitivity analysis on customer connections per phase of the pipeline, and developed recommendations on recycled water rates, project payback, and financial incentives for construction. Financial analysis identified the customers that could be retrofitted and provided a project phasing plan.

The Project Team summarized this information into a report and reviewed the financial data with City of Santa Paula staff.

### Recycled Water Master Plan

City of Upland, CA

Project Team - John Robinson

#### Summary

The Project Team led by John Robinson prepared a Recycled Water Master Plan for the City of Upland. We identified a list of potential recycled water customers and their demands, and used hydraulic modeling to size the required pipelines, pump stations, and reservoirs. Once the hydraulic model and proposed facilities were complete, our team performed an economic evaluation to



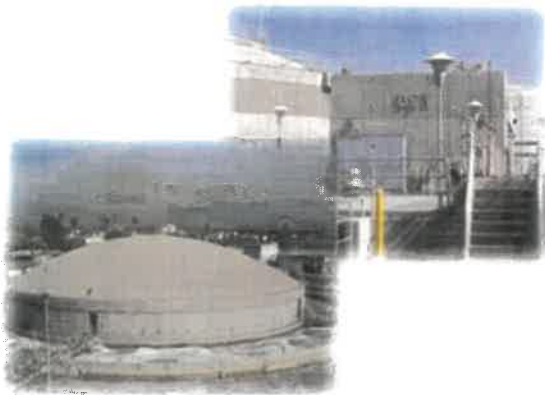
## ***City of Beaumont Recycled Water Program Implementation Facilitator Services***

determine the cost effectiveness of the proposed satellite facilities, as well as ranking and phasing the satellite facilities with the highest potential rate of return.

The economic evaluation included cost estimating, hydraulic modeling to evaluate the effect of not installing certain facilities, and development of recommended phasing. The project resulted in a phased recommendation for expanding the recycled water system. The Project Team also developed a recycled water ordinance, recycled water design standards, and a guidebook to customer connections for the City.

### **Recycled Water Program Implementation**

***San Bernardino Municipal Water Department, San Bernardino, CA***



**Project Team – Tom Holliman**

#### ***Summary***

TRHA is currently supporting the City’s Clean Water Factory Program by providing technical support and project management services. The Clean Water Factory Project will provide tertiary and advanced treatment to the secondary effluent currently being discharged by the City from their regional

treatment plant. TRHA recently completed RFP’s for Phase 2 - 5 MG Tertiary Treatment, and Phase 3 – 0.5 MGD Advanced Water Purification Plant. In addition to preparing the RFP’s TRHA conducted the pre-proposal meeting, prepared addendum, reviewed the final proposals and recommendations for award. TRHA will provide direct support during the design phase for both projects. Total estimated design fee for both projects is approximately \$4,000,000. The project will increase reliability and efficiency of the City’s water system.

### **Recycled Water Program Implementation**

***Inland Empire Utilities Agency, Chino, CA***



**Project Team – Tom Holliman, John Robinson**

#### ***Summary***

TRHA served as the Recycled Water Coordinator/Program Manager for the implementation of IEUA’s Three Year Recycled Water Business Plan. Work included identifying recycled water customers, developing site specific conversion plans, preparing engineer’s reports, onsite recycled water supervisor training, interfacing with member agency staff, developing conversion cost estimates,



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and monitoring recycled water demand. The largest users were the Cities of Chino, Chino Hills, Ontario, and the Cucamonga Valley Water District.







## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

### **Scope of Work**

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TRHA is proposing the following scope of work to complete the Recycled Water Program Implementation Facilitator Services. It is based on the scope of work in the City of Beaumont's (City's) RFP and includes a detailed description of the intended methodology and work plan to be utilized in addressing the scope of work.

*Per the City's request, a detailed Fee Proposal is included in a separate sealed envelope. It details cost per task and project staff discipline.*

### **SECTION III – SCOPE OF SERVICES**

#### ***A. General***

The intent of the Request for Qualifications (RFQ) is to secure the services of qualified professional engineering consultants to act as a Recycled Water Program Implementation Facilitator who will work with the anticipated program partners which include the City of Beaumont, the Beaumont-Cherry Valley Water District, and the San Geronio Pass Water Agency. We understand that TRHA, when selected to provide professional consulting engineering services necessary to facilitate and manage the needs wants and vision of each of the three partner agencies, will collect and review available information and data and meet separately with partner agency Staff and 3x2 committee members.

Based upon those meetings, TRHA will prepare a technical memorandum detailing initial concepts of reasonable recycled water implementation options which may be available to the partner agencies and outlining the implementation options and associated program level schedules of

completion of anticipated tasks and associated program level budget costs.

This work would then be used to define and negotiate a scope of services for addition by addendum to the proposed contract.

TRHA will be proactive and knowledgeable of all regulations required for project acceptance. TRHA will function as an advisor, advocate, and produce a product with the best interest intended for the project partners (City, BCVWD, and SGPWA) within the required schedule and budget.

All work and recommendations will be done in conformance with applicable Local, State, and Federal laws, as well as Beaumont Groundwater Basin Adjudication requirements and rules & regulations. All documents shall be prepared under the responsible direction and supervision of appropriate TRHA state licensed/registered professionals.

#### ***A. Detailed Scope of Service***

The following Scope of Services is provided as a framework and is intended to identify the project partners (City, BCVWD, and SGPWA) expectations and requirements. Once the background materials are reviewed and preliminary concepts are developed, and initial meetings are conducted TRHA may propose to expand or reduce tasks or propose additional work to accomplish the goals of the three agencies.

#### ***Task 1 – Initial Facilitation Meeting with Three Partner Agencies***

TRHA will attend three (3) separate meetings with each of the three partner agencies for a total of nine (9) meetings.



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

TRHA will meet with the City of Beaumont, Beaumont-Cherry Valley Water District, and San Geronio Pass Water Agency to gain an understanding of each agency's needs, desires, and vision for the effective implementation of recycled water in the City of Beaumont and Beaumont-Cherry Valley Water District's Sphere of Influences, as well as those sphere areas that coincide with the San Geronio Pass Water Agency's Sphere of Influence.

### *Task 2 – Data Collection and Review*

TRHA will, as a minimum, collect, compile, and review the following minimum data sets and information:

- City of Beaumont Wastewater Master Plan, AKEL Engineering Group (2021)
- City of Beaumont Recycled Water Reuse Strategy Report, Hunt Thornton Resource Strategies, LWA, Todd Groundwater (2022)
- City of Beaumont Feasibility Study for WWTP Expansion & Salt Mitigation, Albert A. Webb and Associates and Aqua Engineering (2016)
- City of Beaumont Salt Mitigation Upgrade Project (WWTP plans and specifications) (2018)
- City of Beaumont Maximum Benefit Monitoring Program Annual Report(s) (latest edition) for the Beaumont and San Timoteo management Zones and reference information listed in said report(s)
- City of Beaumont NPDES Permit (existing and draft permits) Order No. RS-2015-0026, NPDES NO. CA01 05376 Waste Discharge Requirements and Master Reclamation Permit for the City of Beaumont Wastewater Treatment Plant Riverside County
- RWQCB SAR Resolution R8-2014-0005
- BCVWD Potable Water Master Plan (2016)
- BCVWD Non-potable Water Master Plan (2022) Draft
- BCVWD 2020 Urban Water Management Plan and Water Supply Contingency Plan (2021)
- BCVWD Geohydrologic Investigation Noble Creek Artificial Recharge Study (2002)
- BCVWD Noble Creek Recharge Facilities Phase I and II Project (plans and specifications, where available) (2006 and 2014)
- RCFC&WCD Beaumont MDP Line 16, Stage 50 Recharge Basin Feeder plans and specifications (2021)
- SGPWA Beaumont Avenue Recharge Facilities Project (plans and specifications) (2019)
- SGPWA 2020 Urban Water Management Plan
- Beaumont Basin Watermaster Information



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

(<https://beaumontbasinwatermaster.org>)

- Judgement Pursuant to Stipulation Adjudicating Groundwater Rights in the Beaumont Basin, February 4, 2004 (amended March 14, 2019)
- Beaumont Basin Watermaster Rules and Regulations, latest Amendments
- Resolutions of the Beaumont Basin Watermaster
- Annual Reports of the Beaumont Basin Watermaster
- Engineer Reports of the Beaumont Basin Watermaster
- Meeting Agendas for the Beaumont Basin Watermaster (as necessary)

TRHA expects that staff from the three agencies will provide the information listed above. TRHA will only review those documents listed above in the scope of Task 2.

### *Task 3– Ongoing Project Facilitation Meeting Attendance and Support*

1. TRHA will meet with the 3x2 Committee; assume one meeting per month for a duration of 2.5 hours. Anticipate that City, BCVWD, and SGPWA Staff and consultants may be present to answer questions about their existing systems. TRHA will address recycled water questions from the City, BCVWD, and the 3x2 Committee. TRHA will coordinate with City, BCVWD, and SGPWA

Staff and the 3x2 Committee for agenda topics. TRHA will prepare supporting documentation and presentation material in anticipation of each meeting. Based on the agenda items received, TRHA will provide a meeting agenda two working (2) working days prior to the meetings.

2. TRHA will prepare minutes of each meeting, including any Technical Memoranda, responding to questions from the 3x2 Committee or City, BCVWD, and SGPWA Staff. Meeting minutes will be provided to all attendees electronically within five (5) working days of each meeting.
3. TRHA will meet with the 3x2 Committee, BCVWD Staff, and City Staff (individual kick-off meetings) to understand the system operation, facilities, constraints, and the concerns of the participants.
4. At the first meeting of the 3x2 Committee TRHA will present options and alternatives along with advantages and disadvantages, potential risks and liabilities, and rough order of magnitude costs for the recycled water options. Include a schedule of implementation (time and steps) for each alternative. This would be based on TRHA's review of existing reports and the individual meetings with the 3x2 Committee and the Agency staffs.
5. TRHA will continue meeting with the 3x2 Committee refining alternatives, risks and liabilities, costs, etc. until a program of implementation has been



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agreed to. Anticipated six (6) meetings of 2.5 hours.

6. TRHA will update the schedule of implementation and budgetary costs to reflect the adopted plan.
7. TRHA will assist the 3x2 Committee, BCVWD and City legal counsels to develop contract language for the purchase of recycled water and the equitable distribution of risk and liabilities.

### *Task 4 – Preparation of Technical Memorandum Presenting Recommended Conceptual Plan and Associated Options for Recycled Water Implementation*

TRHA will prepare Technical Memorandum that will define elements of the Recycled Water Implementation program Conceptual Plan based on collaboration with the Project Team (City, BCVWD, and SGPWA). In order to define the final implementation program, a Conceptual Plan shall be developed as part of said work which would be intended to define recycled water implementation recommended option(s) and recommendation(s) based upon completion of Task's 1, 2 and 3 above.

### *Task 5 –Prepare Addendum for Contract for Additional Services Based upon Conceptual Plan for Recycled Water Implementation*

- Develop a detailed scope of work based upon the approved Conceptual Plan for Recycled Water Implementation that will define elements of the Recycled Water Implementation program based on collaboration with the Project Team (City, BCVWD, and SGPWA).

- The proposed contract addendum for additional contract services will be set forth based on the general elements set forth under Section II – Proposal Elements and will include a cost proposal that identifies the original proposal fee schedule, and hourly billable costs for the itemized Scope of Services. All hourly fee schedules will be based on TRHA's current fee schedule rates and will be fixed for the duration of the contract. The costs proposal will clearly identify the estimated man-hours by classification and expenses required for each task, separated by team members, including all subcontractors and contractors required to complete the Scope of Services.

### *VALUE ADDED RELATED SERVICES*

*TRHA has identified additional related services that the City has not specifically identified in this RFP to accomplish the stated goals of this RFP. TRHA recognizes that the value-added related services may or may not be incorporated in the agreement.*

#### *VAS 1 – On-call Funding Assistance*

We can assist the City in meeting with funding agencies, filling out funding



## *City of Beaumont Recycled Water Program Implementation Facilitator Services*

applications, and answering questions. This can speed the approval process and/or assist in obtaining additional funding.

### *VAS 2 – CEQA Clearance*

TRHA has the capability to develop and assist with California Environmental Quality Act (CEQA) clearance. We have prepared Mitigated Negative Declarations for recycled water systems.

### *VAS 3 – Preliminary Design*

TRHA has the capability to develop and perform a preliminary design on the recycled water facilities and customer conversions.

### *VAS 4 – Division of Drinking Water Engineering Reports*

TRHA has the capability to develop the Engineering Reports that will be required for each industrial/commercial site.

### *VAS 5 – Pre-conversion and Post Conversion Cross Connection Testing*

TRHA has AWWA and USC certified Cross Connection Control Program Specialists who can perform the pre-conversion and post conversion cross connection testing.

### *VAS 6 – Recycled Water Users Manuals and Onsite Supervisor Training*

TRHA has the capability to develop recycled water user's manuals for the maintenance personnel at each site. In addition, TRHA can provide Onsite Supervisors Training courses for site personnel.

### *VAS 7 – Direct Injection vs. Surface Spreading*

TRHA can initiate a meeting with the Regional Water Quality Control Board, BCVWD, and Pass Agency, regarding the

potential for direct injection in the Beaumont Basin with ASR wells. This would include identifying additional treatment requirements, injection points, and planning level implementation schedule.

### *Scope of Work*



***Project Manager***



**Summary**

Thomas Holliman was chosen as Project Manager due to his more than 40 years of experience in recycled water planning, design, construction, and operations. Tom developed the first color-coding system for reclaimed and non-potable systems and the coordinated the creation of purple plastic pipe. He was a Principal Author and Team Leader for the development of the “Manual of Practice on

How to Develop a New Water Reuse Program, WaterReuse Association, 2009”, and he the current Past President, Inland Empire Chapter, WaterReuse Association, and Past Chairman of the AWWA CA/NV Section Recycled Water Committee.

He has received several WaterReuse Awards including; WaterReuse Special Project Award, 2015 – Use of Recycled Water for Making Hockey Ice at Citizens Business Bank Arena, Ontario, CA, WaterReuse Association Special Award of Merit, and the California Water Awareness Program, 1997 Water Efficiency Award, Industrial Division for the use of Recycled Water for Ground Subsidence in Long Beach, CA, and WaterReuse Association California Section Special Project of the Year of this project in 1992 for the first use of Recycled Water for Toilet and Urinal Flushing in a High-rise Office Towers.

He is President/Managing Engineer of T.R. Holliman and Associates, Inc. which provides planning and municipal engineering services. Mr. Holliman has also previously served as Assistant General Manager/District Engineer for the Water Replenishment District of Southern California (WRD), Director of Engineering and Planning/Chief Engineer for the Long Beach Water Department, and Engineering and Operations Manager for the East Valley Water District, Highland, CA, and Principal Engineer for the Irvine Ranch Water District.

**Relevant Project Experience**

***Project Manager, Recycled Water System Management and Development, Castaic Lake Water Agency, Santa Clara, CA.***

Completed multiple recycled water program assignments for the Castaic Lake Water Agency. These included a *Recycled Water Program Implementation Guidelines Engineering Road Map* which consisted of a road map to assist CLWA in the implementation of new water reuse projects and addressing challenges to overcome, such as engineering, planning and construction, finance, public outreach, operations, regulatory compliance and health protection, organizational and institutional issues, and political constraints and opportunities. A *Recycled Water Pre-Conversion Evaluation Project* which focused on the preparing a pre-conversion feasibility study for four major retrofit sites. The project included gathering information from site investigations and evaluations in addition to identifying any fatal flaws to the conversion of any of the four sites from domestic water to recycled water. The report evaluated the impact of the proposed recycled water

**Education**

- BS, Civil Engineering, University of Southern California
- MBA, Business Administration, University of California, Irvine

**Licenses**

- Professional Engineer (Civil) – CA
- AWWA/USC Cross Connection Control Program Specialist

**Years of Experience**

- 40



quality on the plant materials and provided recommendations for any necessary modifications to the irrigation systems and replacement of certain plants that may be significantly affected by recycled water. Finally, the work included a *Recycled Water Master Plan Update* that included identifying the total potential recycled water demand through multiple potential landscaping, park, and school conversions. Recycled water system alternatives were produced using all previous information that would develop a distribution system which would deliver recycled water to the various use sites with the most cost-effective way.

***Project Manager, GREAT Project, Phase IB, City of Oxnard, CA***

Provided full technical and administrative support for the on-site recycled water conversions for the City of Oxnard's Groundwater Recovery Enhancement and Treatment (GREAT) Program. This work consisted of identifying commercial/industrial, landscape irrigation, schools, parks, and golf course irrigation conversion opportunities. After identifying the users, conducted user interviews, mapped all the use sites, developed a Master Engineer's Report for all the landscape irrigation sites, and individual reports for the schools, River Park Development, and the River Ridge Golf Course. Conversion plans were developed for all the parks and schools adjacent to the recycled water pipelines.

***Project Manager, Recycled Water Feasibility Study, City of Lompoc, CA***

Developed a recycled water feasibility study to determine where there are opportunities for recycled water use by the City. The report determined what barriers existed to implementing a recycled water system, and developed a cost/benefit analysis. The study identified pertinent regulatory requirements, performed a market assessment of potential customers and demand estimates, analyzed recycled water supply availability and quality, prepared system alternatives, included cost/benefits for each option, and provided recommendations and further analysis needs.

***Project Manager, Recycled Water System Coordination, Inland Empire Utilities Agency, Chino, CA***

Recycled Water Coordinator/Program Manager for the implementation of IEUA's Three Year Recycled Water Business Plan. Work included identifying recycled water customers, developing site specific conversion plans, preparing engineer's reports, onsite recycled water supervisor training, interfacing with member agency staff, developing conversion cost estimates, and monitoring recycled water demand.

***Project Manager, East Pomona Recycled Water Feasibility Study, City of Pomona, CA***

Prepared of a recycled water retrofit feasibility study for eastern Pomona. This work included identifying all potential recycled water customers, developing alternative facility alignments, creating a hydraulic model of the proposed recycled water system, developing the preferred alternatives, preparing cost estimates for each alternative and combining all the information into a comprehensive report with recommendations.

***Principal Planner***



**Summary**

John Robinson was chosen as Principal Planner due to his 16 years of environmental engineering experience focused exclusively on water reclamation and wastewater master planning projects and engineering for municipalities in California and Arizona. He has been involved in feasibility/master studies and planning, technology evaluation and recommendations, preparation of study and design reports, as well as process and mechanical design for new water reclamation and wastewater facilities and expansion of existing facilities. He has provided reclamation system computer hydraulic modeling and has been intimately involved with regulatory agencies with permitting jurisdiction over recycled water projects.

**Education**

- BS, Civil Engineering, California State University – Long Beach
- USC Cross Connection Control Program Specialist

**Years of Experience**

- 20

**Relevant Project Experience**

***Project Manager, Recycled Water Implementation Plan and Recycled Water Program, Inland Empire Utilities Agency (IEUA), CA.*** Mr. Robinson led the development of IEUA's Recycled Water Implementation Plan. The TRHA Team developed the overall project approach and methodology, coordinated project tasks with IEUA, and provided the technical content of the report. As part of the approach, a 10-year implementation plan was developed based on hydraulic modeling performed in InfoWater. After the completion of the Implementation Plan, he managed the design of 10 miles of recycled water pipelines, two pump stations, and two reservoirs.

***Project Manager, Recycled Water Program - Whittier Narrows Water Recycling Project Phase IIA-Pipeline and Pump Station, Upper San Gabriel Valley Municipal Water District (USGVMWD), CA.*** Mr. Robinson oversaw the expansion of the USGVMWD's recycled water system. The facilities for the project include a pump station and reservoir at the Sanitation Districts of Los Angeles County's Whittier Narrows Water Reclamation Plant and approximately 18,000 linear feet of pipeline.

***Technical Advisor, Recycled Water Demonstration Study, City of Anaheim, CA.*** Mr. Robinson provides oversight for the design of the water reclamation facility for the City of Anaheim. The City of Anaheim provides 75,000 acre-feet/year of potable water to approximately 350,000 people within a 50-square mile area. To augment City's water supply, a state-of-the-art, decentralized water recycling demonstration facility is to be built adjacent to City Hall. The facility will produce water that meets Title 22 water quality requirements of California DPH.

***Technical Advisor, Recycled Water Facilities Planning Report, City of Santa Paula, CA.*** Mr. Robinson provides guidance during the development of a facilities planning report for a planned recycled water system. The purpose of this project is to reduce the City's demand on the groundwater basin, allowing the City to expand both within and beyond the City limits. This report was developed to identify the details such as pipeline alignments, reservoir storage volumes, pumping conditions, and operational conditions of the proposed system.

## Dave Bachtel, PE – Bachtel Wastewater Engineers

### *Wastewater Treatment Plant Evaluation*



#### Summary

Dave is President of Bachtel Wastewater Engineers where he provides high value engineering based on 40 years in the industry to clients of all sizes. Dave worked for 30 years with the Los County Sanitation Districts where he most recently was Division Engineer responsible for wastewater treatment plant design. Dave has participated in facilities planning, preliminary design, final design and engineering support for construction for more than 80 projects ranging from under \$1 million to more than \$150 million. He has been involved with research, operations, planning, procurement, design, value engineering, construction support, construction management, start-up and operation of pump stations, head works, odor control, primary treatment, secondary treatment, disinfection, solids processing facilities including sludge thickening, dewatering centrifuges, belt filter presses and plate and frame filter presses, anaerobic digestion, gas clean up, power generation, sludge dewatering, conveying storage, drying, combustion and composting, in addition to design of entire treatment plants. He is familiar with plant upgrades to tertiary and advanced treatment, including DDW Title 22 requirements.

#### Relevant Project Experience

##### *Valencia Water Reclamation Plant Stage IV and Expansions, Santa Clarita, CA*

Project Manager for expansion of Valencia Water Reclamation Plant (VWRP) from 7.5 mgd conventional tertiary treatment to 21.6 mgd nitrified/denitrified tertiary capacity in two phases of hydraulic expansion and two phases of solids processing capacity encompassing six contracts totaling \$80 million. Facilities added included influent pump station expansion, primary sedimentation tanks, including sludge pumping, primary effluent flow equalization, process air compressors aeration tanks and final clarifiers incorporating the Modified Ludzack-Ettinger NDN process, return activated sludge pumping, pressure filtration, filter backwash equalization, chlorination, chlorine contact tanks, de-chlorination, dissolved air flotation of WAS, anaerobic digestion, digested sludge storage, plate and frame filter press digested sludge dewatering, filtrate nitrification utilizing return activated sludge, dewatered cake storage, digester gas pretreatment, power generation, steam boilers, and flood/erosion protection walls. Portions of the project were initially designed by a consultant for conventional activated sludge but required re-scoping and redesign because of changing effluent discharge requirements. As project manager, Dave oversaw consulting work and subsequent in-house re-design to maintain the capacity of the plant expansions and was liaison with SWRCB for loan funding. A major challenge was coordinating construction with the conversion of a second upstream treatment plant (Saugus) to NDN on the same tight schedule as the Valencia plant, all while treating existing flows and maintaining a minimum discharge to the adjacent river continuously. Other challenges included poor subsurface

#### Education

- Master of Science, Sanitary Engineering (MS Sanitary Engineering), Virginia Polytechnic Inst St U 1
- Bachelor of Science, Environmental Technology (BS Environmental Technology), Cornell University

#### Licenses

- Professional Engineer (Civil) – CA
- American Academy of Environmental Engineers

#### Years of Experience

- 40 Years

soil conditions with high groundwater and the need to perform construction in a riverbed occupied by endangered fish species.

***Wastewater Treatment Plant Improvements Project, Brawley, CA***

Project/Design Manager from planning through start-up and process optimization for a \$24,000,000 wastewater treatment plant upgrade from aeration ponds to full secondary treatment with nitrification for the 5.9 mgd WWTP. Project included influent flow equalization for partial combined sewer system with extremely high peak storm flows. Project included construction of three Biolac® aeration basins with circular clarifiers, compressor station, distribution structures and return sludge pumping and distribution, waste sludge pump station, sludge gravity thickener, centrifuge dewatering and Class A biosolids production in a Parkson Thermosystems® solar greenhouse dryer. The project was the San Diego Chapter of APWA Wastewater Project of the Year in 2012 and San Diego Chapter ASCE Wastewater Silver project of the Year, 2013.

***Holtville Wastewater Treatment Plant Improvements, Holtville, CA***

Project Manager for planning, detailed design and construction management for a 1 mgd wastewater treatment plant upgrade from trickling filters to extended aeration. Processes include headworks, Biolac® extended aeration with floating aeration system, integral secondary clarifiers, sludge thickening, and drying beds. The facility preliminary and final design was performed in six months to meet a Cease and Desist Order. Funding was coordinated with several different sources.

***Joint Outfall System 2010 Master Facilities Plan, Los Angeles County Sanitation Districts***

Dave was a project manager for the design input to the master facilities planning for the Sanitation District's 400 MGD Joint Water Pollution Control Plant for its conversion from partial to full secondary treatment. He was responsible for the inlet works, grit chambers, advanced primary treatment, primary sludge collection, waste activated sludge thickening, blended sludge anaerobic digestion, sludge dewatering, dewatered cake storage and cake load-out. Duties included process evaluation, selection and sizing and facility lay-out. Responsibilities included creation of consensus with the Operations staff regarding process recommendations, developing an implementation plan and interfacing with the State Water Resources Control Board to procure State Revolving Loan Funds. A series of 18 contracts totaling over \$400 million was developed to achieve implementation of full secondary treatment within the time allotted by a court approved consent decree. Subsequently, Dave directly managed detailed design and construction support for eight of those contracts. Five of the contracts were designed in-house and three by outside consultants which he managed.

## G. Clayton Tuckfield, PE – Tuckfield & Associates

### *Recycled Water Rate Development*



#### Summary

Clayton is President and Principal Consultant of Tuckfield & Associates where he provides utility rate and capacity charge consulting services. Clayton has managed or been directly involved in publicly owned utility financial services for over 30 years. Since 1985, Mr. Tuckfield has used innovative methods combined with time-tested strategies to assist municipalities and special districts in achieving their financial goals. Clients have included public utilities, state and county governments, municipalities, and public districts. Prior to forming Tuckfield & Associates, Clayton served Black & Veatch Corporation for nearly 15 years in their Management Consulting Division. Mr. Tuckfield has worked with numerous cities and special districts in California and has written papers and articles for AWWA (American Water Works Association) and California Special Districts Association (CSDA) and has conducted a webinar for CSDA regarding financing projects with USDA funding.

#### Education

- Master of Business, Finance (MBA), University of Kansas
- Bachelor of Mechanical Engineering (BSME), Kansas State University

#### Licenses

- Professional Engineer (Mechanical) – KS

#### Years of Experience

- 32 Years

#### Relevant Project Experience

##### *Water Rate Study, City of Buena Park, CA*

Tuckfield & Associates completed a water financial plan and rate study for the City of Buena Park in 2016 and was engaged again by the City for preparation of a financial plan for a revenue bond issue in 2017. The rate study scope of work included (1) preparing a long-range financial plan that includes assessment of current revenues to meet the current and future obligations of the water fund, establishing operating and capital reserve policies, and incorporating financing of the proposed capital improvement program (CIP) spending plan and (2) design of an appropriate rate structure that complies with Proposition 218.

Three financial plan alternatives were prepared and discussed with City Staff that funded the same CIP but with various combinations of cash, bond financing, and annual revenue increases. The cost of service and rate portion of the study included a review and justification of the City's current rate structure and rates and preparing two-tiered rate structure alternatives. The rate structures addressed the recent San Juan Capistrano court decision regarding conservation rates by preparing a new tiered rate structure to replace the current conservation rate structure while also developing a uniform volume rate structure for all customers. The rates were adopted by city council.

##### *Recycled Water Rate Study, Mesa Water District, Costa Mesa, CA*

Tuckfield & Associates performed a Recycled Water Rate Study for Mesa Water District in 2016. The study included several tasks to establish the cost of providing service to the water system and the recycled water system. The District's combined budget was reviewed and through discussions with District staff, the expenses and capital projects were separated and assigned to the water system and the recycled water system. A financial plan was developed for the recycled water

system identifying necessary revenue increases to meet recycled water obligations and policy required reserves. The financial plan was followed by a cost of service analysis that established cost responsibility from fixed and variable charges. Fixed costs were recovered from fixed charges based on the size of recycled meter installed on the customer premises and a uniform volume charge was established to recover the commodity cost. Rates were adopted by the District Board.

*Water and Wastewater Rate Study, City of Loma Linda, CA*

Tuckfield & Associates completed a water and wastewater rate study for the City of Loma Linda in 2014. The study identified a sewer fund budgeting problem that was causing an annual deficit that was not previously identified. The problem was discussed with City staff and the budget was corrected. This resulted in the need for higher wastewater rate increases than expected.

Several rate scenarios were discussed with city staff that evaluated the impact of budget constraints and the delay of capital improvements to future years. In both the water and sewer funds, the fund balances were below city policy target levels. Rate increases for both utilities included rebuilding fund balances, cure annual deficits, meet O&M escalation, pay for future debt service, and fund annual repair and replacement expenditures. Water and wastewater rates were adopted by the City Council.

*Water and Wastewater Rate Study, City of Ventura, CA*

Tuckfield & Associates completed water and wastewater rate studies for the City of Ventura that spanned 20-years, continuing a relationship with the city from 1990 to 2010. Mr. Tuckfield conducted the initial study and subsequent studies over that timeframe. During that period, the city managed to construct over \$200 million in water and wastewater capital improvements, all while maintaining reasonable increases in water and wastewater rates. Mr. Tuckfield also developed water conservation rates using inverted rate blocks for residential customers while establishing separate rates for non-residential customers, including large industrial users.

## **Ben Pak, Ben Pak and Associates, Inc.**

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### ***Project Engineer, GIS Mapping and Groundwater Evaluation***

#### **Summary**

Ben Pak was chosen for GIS Mapping and Groundwater Evaluation due to his experience with recycled water infrastructure and his overall expertise in master planning in the water and recycled water sectors. Mr. Pak has over 30 years of engineering experience in water, recycled water, wastewater, and groundwater recharge projects,

involving the supervision and coordination of the planning, design, and construction of recycled water pipelines and facilities. He also has extensive experience in hydraulic modeling and planning and evaluating potable water, recycled water, and sewer systems.

#### **Relevant Project Experience**

##### ***Project Manager, Great Oaks Water System Hydraulic Model, Great Oaks Water Company, San Jose, CA.***

Built and calibrated the hydraulic model that simulated Great Oaks Water Company's entire water system using the existing water GIS data. Allocated existing demands by geocoding billing data to street addresses or assessor parcel numbers; allocating demands to the closest junction or pipe. Established diurnal demand patterns based on field data. Performed Extended Period Simulations (EPS) on the final system verify performance.

##### ***Project Manager, Water and Sewer Model Updates, East Valley Water District, Highland, CA.***

Managed water and sewer model for a master plan updates. Created and ran various scenarios for new development areas.

##### ***Project Engineer, East Pomona Recycled Water Feasibility Study, Inland Empire Utilities Agency, Chino, CA.***

Created and calibrated a hydraulic model that simulated recycled water demands for the East Pomona service area and created network simulations to maximize recycled water use. Allocated existing demands by geocoding billing data to street addresses or assessor parcel numbers; allocating demands to the closest junction or pipe.

##### ***Project Engineer, Recycled Water System Management and Development, Inland Empire Utilities Agency, Chino, CA.***

Completed and implemented the Water and Sewer Master Plan utilizing the computer modeling. Developed and implemented a recycled water customer database and GIS (Geographical Information System), which enhanced the management of customer and usage information. Managed the hydraulic models for future expansion and daily operations. Coordinated with the local water agencies and Southern California Metropolitan Water District to draft the regional Urban Water Management Plan of 2000 and 2005. Established potential recycled water customer site selection, proposed the alignment of recycled water pipelines, defined design criteria, and completed the initial planning and feasibility study.

#### **Education**

- BS, Mechanical Engineering, Applied Ecology, University of California, San Diego

#### **Years of Experience**

- 30



**T.R. HOLLIMAN**  
& ASSOCIATES

September 19, 2022

Mr. Jeff Hart, Director of Public Works  
City of Beaumont  
550 E. 6th Street  
Beaumont, CA 92223

Subject: Proposal for Recycled Water Program Implementation Facilitator Services for the City of Beaumont

Dear Mr. Hart,

The T.R. Holliman and Associates, Inc. (TRHA) Team is pleased to submit this fee proposal to provide Recycled Water Program Implementation Facilitator Services. We understand the City's desire to move forward with City's recycled water supply in conjunction with the Beaumont Cherry Valley Water District and San Geronio Pass Water Agency. Our total to exceed fee for accomplishing the preparation of the recycled water use analysis is an amount not-to-exceed ~~\$172,000.~~ **\$149,600**

We are confident that our talented team will facilitator services with the utmost quality and service and within the proposed budget. Should there be any questions, please feel free to contact me, Project Manager, and designated point of contact, at (909) 573-6802 or at [trholliman@gmail.com](mailto:trholliman@gmail.com).

Sincerely,  
T.R. Holliman and Associates, Inc.

Thomas R. Holliman, PE  
President/Managing Engineer



City of Beaumont Recycled Water Program Implementation Facilitator Services

Not-to-Exceed Fee

9/16/2022

Task	Project Tasks	Tom Holliman, PE Project Manager	John Robinson Principal Planner	Dave Bachtel, PE Wastewater Treatment Plant Evaluation	Clayton Tuckfield RW Rate	Ben Pak GIS Mapping/ Groundwater Evaluation	Sr. Admin. Support	Total Hours	Total Labor	ODCs	TOTAL FEES
	Hourly Rate	\$210	\$170	\$180	\$175	\$140	\$110				
<b>1.0</b>	<b>Initial Facilitation Meeting with Three Partner Agencies</b>										
	a. City of Beaumont (3 meetings) - 5 hrs/mtg	15	15				6	36	\$6,360		\$6,360
	b. BCYWD (3 meetings) - 5 hrs/mtg	15	15				6	36	\$6,360		\$6,360
	c. SGPWA (3 meetings) - 5 hrs/mtg	15	15				6	36	\$6,360		\$6,360
<b>2.0</b>	<b>Data Collection and Review</b>										
	Review twenty (22) documents	<del>120</del> 80	<del>120</del> 80	<del>80</del> 40			24	<del>344</del> 224	<del>\$62,640</del> \$40,240	\$100	<del>\$62,740</del> \$40,340
<b>3.0</b>	<b>Ongoing Project Facilitation Meeting Attendance and Support</b>										
	3.1 Meet with 3x2 Committee (4.5 hrs/mtg)	4.5	4.5				1	10	\$1,820		\$1,820
	3.2 Prepare agenda, tech memos, and meeting minutes	16					6	22	\$4,020	\$100	\$4,120
	3.3 Initial Kickoff meeting with each agency (3 meetings)	15	15				1	31	\$5,810		\$5,810
	3.4 Prepare options/alternatives with planning level estimates and schedule	40	40	24	24	80	16	224	\$36,680	\$200	\$36,880
	3.5 Ongoing meetings with 3x2 Committee (six meetings)	30					12	42	\$7,620		\$7,620
	3.6 Update implementation schedule	8	16					24	\$4,400		\$4,400
	3.7 Assist in development of interagency contract language	24	24				8	56	\$10,000		\$10,000
<b>4.0</b>	<b>Prepare Technical Memorandum of Recommended Conceptual Plan</b>										
	Prepare technical memorandum	16	16	8	8	24	8	80	\$13,160	\$200	\$13,360
<b>5.0</b>	<b>Prepare Addendum for Contract for Additional Services Based upon Conceptual Plan for Recycled Water Implementation</b>	16	16					32	\$6,080		\$6,080
											\$0
	<b>Subtotal</b>	334.5	296.5	112	32	104	94	973	\$ 171,310	\$ 600	\$171,910
	<b>Total Not-to-Exceed Fee</b>										<del>\$172,000</del>

NTE \$149,600