

## PROFESSIONAL CONSULTANT SERVICES AGREEMENT

TETRA TECH, INC.

Reservoir Condition Assessment and Seismic Evaluation Project – Phase III  
(Piedmont, Campbell, and Heustis Reservoirs) (RFP-2141)

THIS PROFESSIONAL CONSULTANT SERVICES AGREEMENT (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2022 (“Effective Date”), by and between the CITY OF RIVERSIDE (“City”), a California charter city and municipal corporation and TETRA TECH, INC., a Delaware corporation authorized to do business in California (“Consultant”).

1. **Scope of Services.** City agrees to retain and does hereby retain Consultant and Consultant agrees to provide the services more particularly described in Exhibit “A,” “Scope of Services” (“Services”), attached hereto and incorporated herein by reference, in conjunction with Reservoir Condition Assessment and Seismic Evaluation Project – Phase III (Piedmont, Campbell, and Heustis Reservoirs) (RFP-2141) (“Project”).

2. **Term.** This Agreement shall be effective on the date first written above and shall remain in effect until December 31, 2022, unless otherwise terminated pursuant to the provisions herein.

3. **Compensation/Payment.** Consultant shall perform the Services under this Agreement for the total sum not to exceed Ninety Three Thousand Eight Hundred Fifteen Dollars (\$93,815) payable in accordance with the terms set forth in Exhibit “B.” Said payment shall be made in accordance with City’s usual accounting procedures upon receipt and approval of an itemized invoice setting forth the services performed. The invoices shall be delivered to City at the address set forth in Section 4 hereof.

4. **Notices.** Any notices required to be given, hereunder shall be in writing and shall be personally served or given by mail. Any notice given by mail shall be deemed given when deposited in the United States Mail, certified and postage prepaid, addressed to the party to be served as follows:

To City

Public Utilities Department  
City of Riverside  
Attn: Taylor Wilson, P.E.  
3750 University Ave, 3<sup>rd</sup> Floor  
Riverside, CA 92501

To Consultant

Tetra Tech, Inc.  
Attn: Eric Yuen, P.E., S.E.  
160 E. Via Verde, Suite 240  
San Dimas, CA 91773

5. **Prevailing Wage.** If applicable, Consultant and all subcontractors are required to pay the general prevailing wage rates of per diem wages and overtime and holiday wages determined by the Director of the Department of Industrial Relations under Section 1720 et seq. of the California Labor Code and implemented by Resolution No. 13346 of the City Council of the City of Riverside. The Director's determination is available on-line at [www.dir.ca.gov/dlsr/DPreWageDetermination.htm](http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm) and is referred to and made a part hereof; the wage rates therein ascertained, determined, and specified are referred to and made a part hereof as though fully set forth herein.

6. **Contract Administration.** A designee of the City will be appointed in writing by the City Manager or Department Director to administer this Agreement on behalf of City and shall be referred to herein as Contract Administrator.

7. **Standard of Performance.** While performing the Services, Consultant shall exercise the reasonable professional care and skill customarily exercised by reputable members of Consultant's profession practicing in the Metropolitan Southern California Area, and shall use reasonable diligence and best judgment while exercising its professional skill and expertise.

8. **Personnel.** Consultant shall furnish all personnel necessary to perform the Services and shall be responsible for their performance and compensation. Consultant recognizes that the qualifications and experience of the personnel to be used are vital to professional and timely completion of the Services. The key personnel listed in Exhibit "C" attached hereto and incorporated herein by this reference and assigned to perform portions of the Services shall remain assigned through completion of the Services, unless otherwise mutually agreed by the parties in writing, or caused by hardship or resignation in which case substitutes shall be subject to City approval.

9. **Assignment and Subcontracting.** Neither party shall assign any right, interest, or obligation in or under this Agreement to any other entity without prior written consent of the other party. In any event, no assignment shall be made unless the assignee expressly assumes the obligations of assignor under this Agreement, in a writing satisfactory to the parties. Consultant acknowledges that any assignment may, at the City's sole discretion, require City Manager and/or City Council approval. Consultant shall not subcontract any portion of the work required by this Agreement without prior written approval by the responsible City Contract Administrator. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement, including without limitation, the insurance obligations set forth in Section 12. The Consultant acknowledges and agrees that the City is an intended beneficiary of any work performed by any subcontractor for purposes of establishing a duty of care between any subcontractor and the City.

10. **Independent Contractor.** In the performance of this Agreement, Consultant, and Consultant's employees, subcontractors and agents, shall act in an independent capacity as independent contractors, and not as officers or employees of the City of Riverside. Consultant acknowledges and agrees that the City has no obligation to pay or withhold state or federal taxes or to provide workers' compensation or unemployment insurance to Consultant, or to Consultant's

employees, subcontractors and agents. Consultant, as an independent contractor, shall be responsible for any and all taxes that apply to Consultant as an employer.

## **11. Indemnification.**

**11.1 Design Professional Defined.** For purposes of this Agreement, “Design Professional” includes the following:

- A. An individual licensed as an architect pursuant to Chapter 3 (commencing with Section 5500) of Division 3 of the Business and Professions Code, and a business entity offering architectural services in accordance with that chapter.
- B. An individual licensed as a landscape architect pursuant to Chapter 3.5 (commencing with Section 5615) of Division 3 of the Business and Professions Code, and a business entity offering landscape architectural services in accordance with that chapter.
- C. An individual registered as a professional engineer pursuant to Chapter 7 (commencing with Section 6700) of Division 3 of the Business and Professions Code, and a business entity offering professional engineering services in accordance with that chapter.
- D. An individual licensed as a professional land surveyor pursuant to Chapter 15 (commencing with Section 8700) of Division 3 of the Business and Professions Code, and a business entity offering professional land surveying services in accordance with that chapter.

**11.2 Defense Obligation For Design Professional Liability.** Consultant agrees, at its cost and expense, to promptly defend the City, and the City’s employees, officers, managers, agents and council members (collectively the “Parties to be Defended”) from and against any and all claims, allegations, lawsuits, arbitration proceedings, administrative proceedings, regulatory proceedings, or other legal proceedings to the extent the same arise out of, pertain to, or relate to the negligence, recklessness or willful misconduct of Consultant, or anyone employed by or working under the Consultant or for services rendered to the Consultant in the performance of the Contract, notwithstanding that the City may have benefited from its work or services and whether or not caused in part by the negligence of an Indemnified Party. Consultant agrees to provide this defense immediately upon written notice from the City, and with well qualified, adequately insured and experienced legal counsel acceptable to City. This obligation to defend as set forth herein is binding on the successors, assigns and heirs of Consultant and shall survive the termination of Consultant’s Services under this Agreement.

**11.3 Indemnity For Design Professional Liability.** When the law establishes a professional standard of care for Consultant’s services, to the fullest extent permitted by law, Consultant shall indemnify, protect and hold harmless the City and the City’s employees, officers, managers, agents, and Council Members (“Indemnified Parties”) from and against any and all claim for damage, charge, lawsuit, action, judicial, administrative, regulatory or arbitration proceeding,

damage, cost, expense (including counsel and expert fees), judgment, civil fines and penalties, liabilities or losses of any kind or nature whatsoever to the extent the same arise out of, pertain to, or relate to the negligence, recklessness or willful misconduct of Consultant, or anyone employed by or working under the Consultant or for services rendered to the Consultant in the performance of the Contract, notwithstanding that the City may have benefited from its work or services and whether or not caused in part by the negligence of an Indemnified Party.

#### **11.4 Defense Obligation For Other Than Design Professional Liability.**

Consultant agrees, at its cost and expense, to promptly defend the City, and the City's employees, officers, managers, agents and council members (collectively the "Parties to be Defended") from and against any and all claims, allegations, lawsuits, arbitration proceedings, administrative proceedings, regulatory proceedings, or other legal proceedings which arise out of, or relate to, or are in any way connected with: 1) the Services, work, activities, operations, or duties of the Consultant, or of anyone employed by or working under the Consultant, or 2) any breach of the Contract by the Consultant. This duty to defend shall apply whether or not such claims, allegations, lawsuits or proceedings have merit or are meritless, or which involve claims or allegations that any or all of the Parties to be Defended were actively, passively, or concurrently negligent, or which otherwise assert that the Parties to be Defended are responsible, in whole or in part, for any loss, damage or injury. Consultant agrees to provide this defense immediately upon written notice from the City, and with well qualified, adequately insured and experienced legal counsel acceptable to City. This obligation to defend as set forth herein is binding on the successors, assigns and heirs of Consultant and shall survive the termination of Consultant's Services under this Agreement.

**11.5 Indemnity For Other Than Design Professional Liability.** Except as to the sole negligence or willful misconduct of the City, Consultant agrees to indemnify, protect and hold harmless the Indemnified Parties from and against any claim for damage, charge, lawsuit, action, judicial, administrative, regulatory or arbitration proceeding, damage, cost, expense (including counsel and expert fees), judgment, civil fine and penalties, liabilities or losses of any kind or nature whatsoever whether actual, threatened or alleged, which arise out of, pertain to, or relate to, or are a consequence of, or are attributable to, or are in any manner connected with the performance of the Services, work, activities, operations or duties of the Consultant, or anyone employed by or working under the Consultant or for services rendered to Consultant in the performance of this Agreement, notwithstanding that the City may have benefited from its work or services. This indemnification provision shall apply to any acts, omissions, negligence, recklessness, or willful misconduct, whether active or passive, on the part of the Consultant or anyone employed or working under the Consultant.

## **12. Insurance.**

**12.1 General Provisions.** Prior to the City's execution of this Agreement, Consultant shall provide satisfactory evidence of, and shall thereafter maintain during the term of this Agreement, such insurance policies and coverages in the types, limits, forms and ratings required herein. The rating and required insurance policies and coverages may be modified in writing by the City's Risk Manager or City Attorney, or a designee, unless such modification is prohibited by law.

**12.1.1 Limitations.** These minimum amounts of coverage shall not constitute any limitation or cap on Consultant's indemnification obligations under Section 11 hereof.

12.1.2 **Ratings.** Any insurance policy or coverage provided by Consultant or subcontractors as required by this Agreement shall be deemed inadequate and a material breach of this Agreement, unless such policy or coverage is issued by insurance companies authorized to transact insurance business in the State of California with a policy holder's rating of A or higher and a Financial Class of VII or higher.

12.1.3 **Cancellation.** The policies shall not be canceled unless thirty (30) days prior written notification of intended cancellation has been given to City by certified or registered mail, postage prepaid.

12.1.4 **Adequacy.** The City, its officers, employees and agents make no representation that the types or limits of insurance specified to be carried by Consultant pursuant to this Agreement are adequate to protect Consultant. If Consultant believes that any required insurance coverage is inadequate, Consultant will obtain such additional insurance coverage as Consultant deems adequate, at Consultant's sole expense.

12.2 **Workers' Compensation Insurance.** By executing this Agreement, Consultant certifies that Consultant is aware of and will comply with Section 3700 of the Labor Code of the State of California requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance before commencing any of the work. Consultant shall carry the insurance or provide for self-insurance required by California law to protect said Consultant from claims under the Workers' Compensation Act. Prior to City's execution of this Agreement, Consultant shall file with City either 1) a certificate of insurance showing that such insurance is in effect, or that Consultant is self-insured for such coverage, or 2) a certified statement that Consultant has no employees, and acknowledging that if Consultant does employ any person, the necessary certificate of insurance will immediately be filed with City. Any certificate filed with City shall provide that City will be given ten (10) days prior written notice before modification or cancellation thereof.

12.3 **Commercial General Liability and Automobile Insurance.** Prior to City's execution of this Agreement, Consultant shall obtain, and shall thereafter maintain during the term of this Agreement, commercial general liability insurance and automobile liability insurance as required to insure Consultant against damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from or which may concern operations by anyone directly or indirectly employed by, connected with, or acting for or on behalf of Consultant. The City, and its officers, employees and agents, shall be named as additional insureds under the Consultant's insurance policies.

12.3.1 Consultant's commercial general liability insurance policy shall cover both bodily injury (including death) and property damage (including, but not limited to, premises operations liability, products-completed operations liability, independent contractor's liability, personal injury liability, and contractual liability) in an amount not less than \$1,000,000 per occurrence and a general aggregate limit in the amount of not less than \$2,000,000.

12.3.2 Consultant's automobile liability policy shall cover both bodily injury and property damage in an amount not less than \$1,000,000 per occurrence and an aggregate limit of not less than \$1,000,000. All of Consultant's automobile and/or commercial general liability insurance policies shall cover all vehicles used in connection with Consultant's performance of this Agreement, which vehicles shall include, but are not limited to, Consultant owned vehicles, Consultant leased vehicles, Consultant's employee vehicles, non-Consultant owned vehicles and hired vehicles.

12.3.3 Prior to City's execution of this Agreement, copies of insurance policies or original certificates and additional insured endorsements evidencing the coverage required by this Agreement, for both commercial general and automobile liability insurance, shall be filed with City and shall include the City and its officers, employees and agents, as additional insureds. Said policies shall be in the usual form of commercial general and automobile liability insurance policies, but shall include the following provisions:

It is agreed that the City of Riverside, and its officers, employees and agents, are added as additional insureds under this policy, solely for work done by and on behalf of the named insured for the City of Riverside.

12.3.4 The insurance policy or policies shall also comply with the following provisions:

- a. The policy shall be endorsed to waive any right of subrogation against the City and its sub-consultants, employees, officers and agents for services performed under this Agreement.
- b. If the policy is written on a claims made basis, the certificate should so specify and the policy must continue in force for one year after completion of the services. The retroactive date of coverage must also be listed.
- c. The policy shall specify that the insurance provided by Consultant will be considered primary and not contributory to any other insurance available to the City.

12.4 **Errors and Omissions Insurance.** Prior to City's execution of this Agreement, Consultant shall obtain, and shall thereafter maintain during the term of this Agreement, errors and omissions professional liability insurance in the minimum amount of \$1,000,000 to protect the City from claims resulting from the Consultant's activities.

12.5 **Subcontractors' Insurance.** Consultant shall require all of its subcontractors to carry insurance, in an amount sufficient to cover the risk of injury, damage or loss that may be caused by the subcontractors' scope of work and activities provided in furtherance of this Agreement, including, but without limitation, the following coverages: Workers Compensation, Commercial General Liability, Errors and Omissions, and Automobile liability. Upon City's

request, Consultant shall provide City with satisfactory evidence that Subcontractors have obtained insurance policies and coverages required by this section.

13. **Business Tax.** Consultant understands that the Services performed under this Agreement constitutes doing business in the City of Riverside, and Consultant agrees that Consultant will register for and pay a business tax pursuant to Chapter 5.04 of the Riverside Municipal Code and keep such tax certificate current during the term of this Agreement.

14. **Time of Essence.** Time is of the essence for each and every provision of this Agreement.

15. **City's Right to Employ Other Consultants.** City reserves the right to employ other Consultants in connection with the Project. If the City is required to employ another consultant to complete Consultant's work, due to the failure of the Consultant to perform, or due to the breach of any of the provisions of this Agreement, the City reserves the right to seek reimbursement from Consultant.

16. **Accounting Records.** Consultant shall maintain complete and accurate records with respect to costs incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

17. **Confidentiality.** All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other materials either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant, except as otherwise directed by City's Contract Administrator. Nothing furnished to Consultant which is otherwise known to the Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production, website, or other similar medium without the prior written consent of the City.

18. **Ownership of Documents.** All reports, maps, drawings and other contract deliverables prepared under this Agreement by Consultant shall be and remain the property of City. Consultant shall not release to others information furnished by City without prior express written approval of City.

19. **Copyrights.** Consultant agrees that any work prepared for City which is eligible for copyright protection in the United States or elsewhere shall be a work made for hire. If any such work is deemed for any reason not to be a work made for hire, Consultant assigns all right, title and interest in the copyright in such work, and all extensions and renewals thereof, to City, and agrees to provide all assistance reasonably requested by City in the establishment, preservation and enforcement of its copyright in such work, such assistance to be provided at City's expense but

without any additional compensation to Consultant. Consultant agrees to waive all moral rights relating to the work developed or produced, including without limitation any and all rights of identification of authorship and any and all rights of approval, restriction or limitation on use or subsequent modifications.

20. **Conflict of Interest.** Consultant, for itself and on behalf of the individuals listed in Exhibit "C", represents and warrants that by the execution of this Agreement, they have no interest, present or contemplated, in the Project affected by the above-described Services. Consultant further warrants that neither Consultant, nor the individuals listed in Exhibit "C" have any real property, business interests or income interests that will be affected by this project or, alternatively, that Consultant will file with the City an affidavit disclosing any such interest.

21. **Solicitation.** Consultant warrants that Consultant has not employed or retained any person or agency to solicit or secure this Agreement, nor has it entered into any agreement or understanding for a commission, percentage, brokerage, or contingent fee to be paid to secure this Agreement. For breach of this warranty, City shall have the right to terminate this Agreement without liability and pay Consultant only for the value of work Consultant has actually performed, or, in its sole discretion, to deduct from the Agreement price or otherwise recover from Consultant the full amount of such commission, percentage, brokerage or commission fee. The remedies specified in this section shall be in addition to and not in lieu of those remedies otherwise specified in this Agreement.

22. **General Compliance With Laws.** Consultant shall keep fully informed of federal, state and local laws and ordinances and regulations which in any manner affect those employed by Consultant, or in any way affect the performance of services by Consultant pursuant to this Agreement. Consultant shall at all times observe and comply with all such laws, ordinances and regulations, and shall be solely responsible for any failure to comply with all applicable laws, ordinances and regulations. Consultant represents and warrants that Consultant has obtained all necessary licenses to perform the Scope of Services and that such licenses are in good standing. Consultant further represents and warrants that the services provided herein shall conform to all ordinances, policies and practices of the City of Riverside.

23. **Waiver.** No action or failure to act by the City shall constitute a waiver of any right or duty afforded City under this Agreement, nor shall any such action or failure to act constitute approval of or acquiescence in any breach thereunder, except as may be specifically, provided in this Agreement or as may be otherwise agreed in writing.

24. **Amendments.** This Agreement may be modified or amended only by a written agreement and/or change order executed by the Consultant and City.

25. **Termination.** City, by notifying Consultant in writing, shall have the right to terminate any or all of Consultant's services and work covered by this Agreement at any time. In the event of such termination, Consultant may submit Consultant's final written statement of the amount of Consultant's services as of the date of such termination based upon the ratio that the work completed bears to the total work required to make the report complete, subject to the City's rights under Sections 15 and 25 hereof. In ascertaining the work actually rendered through the termination



date, City shall consider completed work, work in progress and complete and incomplete reports and other documents only after delivered to City.

25.1 Other than as stated below, City shall give Consultant thirty (30) days prior written notice prior to termination.

25.2 City may terminate this Agreement upon fifteen (15) days written notice to Consultant, in the event:

25.2.1 Consultant substantially fails to perform or materially breaches the Agreement; or

25.2.2 City decides to abandon or postpone the Project.

26. **Offsets.** Consultant acknowledges and agrees that with respect to any business tax or penalties thereon, utility charges, invoiced fee or other debt which Consultant owes or may owe to the City, City reserves the right to withhold and offset said amounts from payments or refunds or reimbursements owed by City to Consultant. Notice of such withholding and offset, shall promptly be given to Consultant by City in writing. In the event of a dispute as to the amount owed or whether such amount is owed to the City, City will hold such disputed amount until either the appropriate appeal process has been completed or until the dispute has been resolved.

27. **Successors and Assigns.** This Agreement shall be binding upon City and its successors and assigns, and upon Consultant and its permitted successors and assigns, and shall not be assigned by Consultant, either in whole or in part, except as otherwise provided in paragraph 9 of this Agreement.

28. **Venue and Attorneys' Fees.** Any action at law or in equity brought by either of the parties hereto for the purpose of enforcing a right or rights provided for by this Agreement shall be tried in a court of competent jurisdiction in the County of Riverside, State of California, and the parties hereby waive all provisions of law providing for a change of venue in such proceedings to any other county. In the event either party hereto shall bring suit to enforce any term of this Agreement or to recover any damages for and on account of the breach of any term or condition of this Agreement, it is mutually agreed that the prevailing party in such action shall recover all costs thereof, including reasonable attorneys' fees, to be set by the court in such action.

29. **Nondiscrimination.** During Consultant's performance of this Agreement, Consultant shall not discriminate on the grounds of race, religious creed, color, national origin, ancestry, age, physical disability, mental disability, medical condition, including the medical condition of Acquired Immune Deficiency Syndrome (AIDS) or any condition related thereto, marital status, sex, or sexual orientation, in the selection and retention of employees and subcontractors and the procurement of materials and equipment, except as provided in Section 12940 of the California Government Code. Further, Consultant agrees to conform to the requirements of the Americans with Disabilities Act in the performance of this Agreement.

30. **Severability.** Each provision, term, condition, covenant and/or restriction, in whole and in part, of this Agreement shall be considered severable. In the event any provision, term,

condition, covenant and/or restriction, in whole and/or in part, of this Agreement is declared invalid, unconstitutional, or void for any reason, such provision or part thereof shall be severed from this Agreement and shall not affect any other provision, term, condition, covenant and/or restriction of this Agreement, and the remainder of the Agreement shall continue in full force and effect.

31. **Authority.** The individuals executing this Agreement and the instruments referenced herein on behalf of Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions hereof and thereof.

32. **Entire Agreement.** This Agreement constitutes the final, complete, and exclusive statement of the terms of the agreement between the parties pertaining to the subject matter of this Agreement, and supersedes all prior and contemporaneous understandings or agreements of the parties. Neither party has been induced to enter into this Agreement by and neither party is relying on, any representation or warranty outside those expressly set forth in this Agreement.

33. **Interpretation.** City and Consultant acknowledge and agree that this Agreement is the product of mutual arms-length negotiations and accordingly, the rule of construction, which provides that the ambiguities in a document shall be construed against the drafter of that document, shall have no application to the interpretation and enforcement of this Agreement.

33.1 Titles and captions are for convenience of reference only and do not define, describe or limit the scope or the intent of the Agreement or any of its terms. Reference to section numbers, are to sections in the Agreement unless expressly stated otherwise.

33.2 This Agreement shall be governed by and construed in accordance with the laws of the State of California in effect at the time of the execution of this Agreement.

33.3 In the event of a conflict between the body of this Agreement and Exhibit "A" - Scope of Services hereto, the terms contained in Exhibit "A" shall be controlling.

34. **Exhibits.** The following exhibits attached hereto are incorporated herein to this Agreement by this reference:

Exhibit "A" - Scope of Services  
Exhibit "B" - Compensation  
Exhibit "C" - Key Personnel

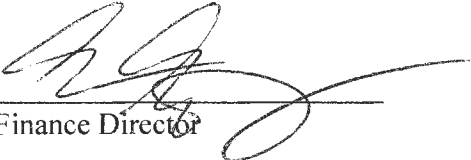
IN WITNESS WHEREOF, City and Consultant have caused this Agreement to be duly executed the day and year first above written.

CITY OF RIVERSIDE, a California  
charter city and municipal corporation


By: \_\_\_\_\_  
City Manager

Attest: \_\_\_\_\_  
City Clerk

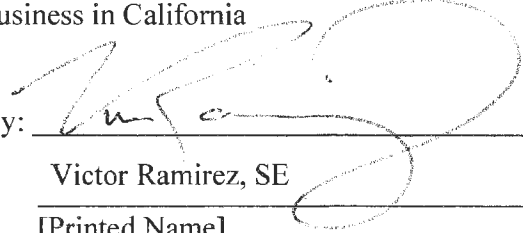
Certified as to Availability of Funds:

By:   
Finance Director

Approved as to Form:

By:   
Deputy City Attorney

TETRA TECH, INC.,  
a Delaware corporation authorized to do  
business in California

By:   
Victor Ramirez, SE  
[Printed Name]  
Senior Project Manager  
[Title]

By: \_\_\_\_\_  
[Printed Name]  
[Title]

**EXHIBIT “A”**

**SCOPE OF SERVICES**

possible backfill soil type and the building code prescriptive values to determine these lateral soil pressure parameters. The lateral soil pressure parameters are especially critical for these three reservoirs since all three reservoirs are either completely buried or predominantly buried below grade. If elected by the City, we can provide the geotechnical explorations and field material testing to determine these soil design parameters with additional cost.

Our goal is to combine the information we gather in the field investigation and the findings of our structural analyses to generate a categorized table of the structural strength of the various components of each reservoir and a prioritized table of recommended repairs and retrofits. These tables, and the estimate of probable construction costs, which will be included in the Preliminary Design Report (PDR), will be valuable tools in the City's planning of facility improvements.

With this approach serving as the framework for all of our efforts, the following is our proposed scope of services.

### **PROJECT WORK SCOPE**

#### **Task 1 – Project Management Services**

- A. Tetra Tech will conduct a kickoff meeting with the City to discuss the goals and objectives for the project. At this kickoff meeting, project reporting and communication protocols will be established, a project schedule will be provided, and key issues will be discussed to establish the project guidelines. Tetra Tech will prepare a meeting agenda for City's review prior to the kickoff meeting and draft meeting minutes with action items within five working days following the meeting.
- B. We will conduct a draft report review meetings after the draft report submittal. We will prepare meeting agenda for City's review prior to the meeting and meeting minutes with action items within five working days following each meeting.
- C. Tetra Tech will submit a detailed billing breakdown with each invoice submitted listing all individuals and subconsultants and contractors who worked on the project, along with billing rates, multipliers and hours charged.
- D. Tetra Tech will provide a detailed budget summary with each invoice showing budget spent, remaining, and forecast for next billing period, along with a written summary of work performed for the invoice period and to be performed during the next billing period.

#### **Task 2 – Preliminary Engineering Services**

- A. Tetra Tech will review City's existing data and record drawings concerning reservoir location, design, construction and other issues.

#### **Task 3 – Field Inspection Services**

- A. Tetra Tech will provide labor, equipment, materials and incidentals required to perform a visual observation of the interior of the existing reservoir structures, including the visible reservoir appurtenances. All safety equipment necessary to perform a full and complete entry to the reservoir will be furnished by Tetra Tech. We assume that the existing reservoir hatches and ladders are suitable for use by the field investigation teams. The field examination of each reservoir is anticipated to be done in two one-day site visits. (one full and one empty).



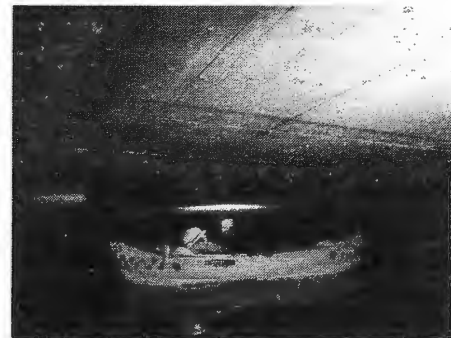
*Tetra Tech Reservoir Evaluation Personal Protection Equipment (PPE)*

Prior to our field examinations, in accordance with Tetra Tech corporate policy, we will prepare a "Health & Safety Plan" (HSP) for use by our field investigative personnel and subconsultants for their safety and wellbeing. The HSP will identify the anticipated safety hazards and the corresponding necessary precautions and personal safety equipment needed by field staff. It will identify locations and phone numbers of the emergency care providers and first responders nearest to the project site equipped to perform confined space evacuations. Our work scope includes interior examination of the reservoirs, which are confined spaces. All of our field personnel entering any confined spaces will be formally trained, certified and equipped with the necessary safety equipment (hardhats, safety vests, fall protection safety harnesses, lanyards, gas sniffers, extraction tripods and winches). Tetra Tech maintains all this Personal Protection Equipment (PPE) for our field staff and will rent any additional equipment if necessary. Tetra Tech will also provide a certified confined space entry monitor



*Tetra Tech Reservoir Evaluation Fall Protection*

- The First site visit will be done when the reservoirs are full. Examination of the reservoir exterior exposed elements such as the roof slab and top part of walls will be performed. Also, close examinations of the interior underside of roof structures including the roof slab, drop panels, top part of the columns, column to roof connections and wall to roof joint will be performed by Tetra Tech structural engineers, with the reservoir filled to within 3 to 3.5 feet below the low point of the roof structure. With the aid of inflatable kayaks (2 kayaks/2 observers), the observers can be close enough to the roof structure to allow for the up-close examination of the above-mentioned structural elements. The reservoir full inspection is effective especially for the reservoirs with a flat roof system, such as the three reservoir in this RFP, since with the gentle slope of the roof, the observers can be up close to the majority of the roof structure; however, the reservoir full inspection may not be as beneficial for a roof structure with a steep slope such as doom roof structure as majority of the roof structural away from the wall will be too far away for the observers to do a close up examination. Tetra Tech's field examination teams will have tarps, sprayers, chlorine, etc. required to wash down the kayaks and oars with a 200 PPM chlorine solution prior to entry in the reservoirs.



*Engineer Examining the Underside of a Reservoir Roof Slab*

- The Second site visit will be done when the reservoirs are drained. Examination of the reservoir interior elements such as the walls, floor slab, columns, column footing, joints and appurtenances will be performed by Tetra Tech structural engineer. Our examination will include Schmidt hammer testing of the concrete strength, checking for signs of rebar corrosion, concrete cracking, spalling or other structural disturbances. With the aid of a 12-foot long heavy chain, held at both ends with rope and dragged across the floor slab, the location and extent of possible subgrade voids beneath the floor slab, if any, will be located and outlined with non-toxic crayon for future reference during the preparation of the reservoir rehabilitation improvement drawings. A common method of repair is by pressure injection of grout through one or more holes drilled in the floor slab: one or more for injection; one or more for bleeding of displaced air and eventually grout, when the voids are filled. These field examinations are most effective when the reservoirs are clean and dry. We respectfully request that the City prepare the reservoirs for examination.



*Tetra Tech Structural Engineers dragging a chain across the floor of a reservoir floor slab*

#### **Task 4 – Engineering and Seismic Evaluation Services**

- A. Tetra Tech will perform a structural evaluation of each reservoir by a licensed structural engineer in the State of California. The evaluation will include a full review of the original design plans for each reservoir and will take into consideration the existing conditions identified during the Field Inspection. As a basis for our detailed analysis, we will use ASCE 7-16 (Minimum Design Loads for Buildings and Other Structures), ACI 350.06 (Code Requirements for Environmental Engineering Concrete Structures), ACI 350.3.06 (Seismic Design of Liquid-Containing Concrete Structures) and site-specific seismic design values based on the USGS maps. Prescriptive code values (from Table 3.2-1 of ASCE 7-16) will be used as a basis for the design lateral soil load. Site specific design lateral soil load, if needed, can be provided through a geotechnical evaluation for an additional fee.

Our Preliminary Structural Analysis will include review of the following Existing Reservoir Structural Components:

- Sloshing Wave Height vs. Freeboard Provided
- Roof Slab (for hydrodynamic uplift due to seismic sloshing wave against bottom side of roof slab where applicable)
- Roof Slab, Columns and Column Foundation (for gravity load)
- Wall (for static and hydrodynamic seismic loading)
- Roof Slab-to-Wall Connection (for shear transfer)
- Wall-to-Floor Slab Connection (for shear transfer)

Among the exhibits of the PDR that will be included in the report is a Demand/Capacity (D/C) Matrix. As part of our structural analysis, each of the elements listed in the bullet points above will be analyzed to determine its state of stress when subjected to the loading (“Demand”) required by current design standards. These values will be divided by the component strength dictated by the same standards (“Capacity”) resulting in the calculated D/C ratio for the component. The D/C ratio is a measurement of the structural adequacy of a member when loaded. In order to easily process the results of our structural analysis, a “Demand/Capacity Matrix” will be prepared showing the D/C ratios for each structural component analyzed. To help facilitate the interpretation of the D/C Matrix, a similar table, the “Hazard Categorization & Prioritization

Matrix" will be produced showing a color-coded priority (in terms of public safety) assigned for each reservoir structural component analyzed. (See example below)

- B. Tetra Tech will prepare a detailed baseline Condition Assessment and Seismic Evaluation Report of the findings, including a summary with photos of the existing conditions discovered from the field inspection, a summary of the evaluations performed, recommendations for reservoir retrofit and/or repair options (if needed), and budgetary estimates for the retrofit and/or repair options presented (if needed).
- C. We will submit a copy of the draft Condition Assessment and Seismic Evaluation Report for City staff review and comment in Portable Document Format (PDF). We will schedule one of the four progress meetings to occur after the City's review of the draft report. We can discuss the City's comments, questions and concerns regarding the draft report at this meeting.
- D. We will submit a copy of the final Condition Assessment and Seismic Evaluation Report incorporating comments from City staff in PDF.

	STRUCTURAL COMPONENT <sup>1</sup>		RESERVOIRS - D/C RATIO <sup>1</sup>	
			Alameda Reservoir	Sagehen Reservoir
Demand / Capacity Ratios	Dome Roof			
	Gravity Analysis	Rebar Flexural Capacity	0.49	0.58
		Concrete Shear Capacity	0.84	0.84
		Concrete Compressive Capacity	0.11	0.15
	Dome Roof Ring Beam		0.45	0.60
	Wall Top Connection			
	Roof Bolt Analysis <sup>2</sup> (Tangential Lateral Load Shear Transfer)		4.21	3.37
	Wall Shell			
	Circumferential Wall Prestressing Wires Analysis <sup>4</sup>	Static Condition <sup>3</sup>	0.91	1.02
		Seismic Condition <sup>3</sup>	1.60	1.89
	Prestressing Vertical Steel Rods Analysis <sup>11</sup>		2.89	1.47
	Wall Base Connection			
	Seismic Cables Analysis (Tangential Lateral Load Shear Transfer)		1.45	7.10
	Wall Ring Footing			
Condition Evaluation Summary	Soil Bearing Pressure <sup>7</sup>	Static Condition <sup>3</sup>	0.78	0.60
		Seismic Condition <sup>3</sup>	0.71	0.80
	Global Stability			
	Sliding <sup>8</sup>	Empty Reservoir Condition <sup>9</sup>	1.07	0.60
		Full Reservoir Condition	0.36	0.34
	Freeboard <sup>10</sup>		0.92	1.69
	Floor Slab			
	Temperature and Shrinkage Ratio <sup>12</sup>		1.36	0.94
	Piping			
	Intake Outlet <sup>13</sup>		X	X
	Outlet <sup>13</sup>		X	-
	Drain <sup>13</sup>		X	X
	Overflow Pipe		OK <sup>14</sup>	OK
	Float Well Pipe		OK	OK
	Appurtenances:			
	Exterior Ladder(s) <sup>15</sup>		OK	OK
	Interior Ladder(s)		OK	OK
	Overflow Pipe Supports		X <sup>16</sup>	OK
	Float Well Pipe Supports		X <sup>16</sup>	OK
	Stitches <sup>17</sup>		OK	OK
	Vents <sup>17</sup>		OK	OK
	Concrete Deterioration/Coatings/Rebar Corrosion			
	Classification(s) of Noted Deterioration		Minor	Minor
	Structural Concerns Due to Deterioration		No	No

Legend:

- OK Acceptable - no repairs, modification or replacement warranted
- X Improvement Needed (i.e., repair, modification, rehabilitation or replacement)
- (i.e., no value in the cell) This parameter does not apply to this reservoir.



**FOOTNOTES:**

1. A Demand/Capacity Ratio greater than 1.0 indicates a state of overstress.
2. Element Dimensions, Reinforcement and Prestressing Forces are per the As-Built Drawings.
3. Roof Bolts are the only structural element that resists the tangential seismic shear from the dome roof. Hilti Profix Program was used to analyze roof bolts.
4. The demand to capacity ratio varies throughout the entire height of the wall. The highest demand to capacity ratio is presented here.
5. Reservoir is considered in Static Condition when only (Dead Loads, Roof Live Loads and Hydrostatic Loads) are only applied to the Reservoir.
6. Reservoir is considered in Seismic Condition when (Dead Loads, Roof Live Loads, Hydrostatic Loads and Hydrodynamic Loads) applied to the Reservoir.
7. D/C Ratio of <1.10 is considered as acceptable for existing structures.
8. Sliding Global Stability Checks analyses the reservoir when it is empty versus when it is full.
9. Soil Bearing Capacities were analyzed the reservoir for both static and seismic conditions.
10. Freeboard is calculated based on the as-built. Since the reservoir is currently operating at a lowered level than the as-built drawing per the operator, the actual D/C ratio will be lower.
11. Prestressing Vertical Rods provide crack control to the concrete wall. It does not affect the overall wall shell strength.
12. Floor Slab checked using minimum temperature and shrinkage steel-to-concrete ratio per ACI 308-0.4.
13. Those of three Intake, Outlets and Drains in the reservoir have built-up corrosion and rust.
14. There is a crack in the master coating at top of the Overflow Pipe. This will need to be addressed to prevent a safety hazard.
15. The Pipe Supports in all reservoirs have built-up corrosion and rust. Replacement is strongly recommended.
16. Remove and replace exterior ladder will be required due to wall retrofit.
17. Minor rusted, touch up will required.



Engineering Evaluation	RESERVOIR COMPONENT	RESERVOIR NO. (RESERVOIR NO. BY PRESSURE ZONE)	
		Alexandria Reservoir	Sugarloaf Reservoir
		S1	S1
	Dome Roof	S1	S1
	Wall Top Connection		
	Wall Shell		
	Wall Base Connection		
	Wall Footing	S1	S1
	Erebard	S2	S2
	Floor Slab	S1	S1
	Piping		
	Inlet Outlet	PA2	PA2
	Outlet	PA2	N/A
	Drain	PA2	PA2
	Overflow Pipe	PA2	PA1
	Floor Wall Pipe	PA1	PA1
	Appurtenances		
	Exterior Ladder	PA1	PA1
	Interior Ladder	PA1	PA1
	Overflow Pipe Supports	PA2	PA1
	Floor Wall Pipe Supports	PA2	PA1
	Roof Access Hatch	PA1	PA1
	Roof-Top View	PA1	PA1

Table T-2: Hazard Categorization & Prioritization Summary



**LEGEND:**

The Categories shown below represent the relative structural seismic capabilities ("S" Categories) and physical condition ("PA" Categories) of the each of the aspects of the various Reservoir Components. The associated rankings also represent the relative Prioritization in terms of order of implementation for each.

**Structural Components (S)**

The following Risk Categories assume the performance of the maximum design level earthquake that is the basis for this seismic evaluation (2% chance of exceedance in 50 years) under not represent normal day-to-day seismic conditions and the occurrence of some lower seismic event.

**Category S1: Little or No Damage**

Negligible damage; minor cracking (concrete structures) or deformation (steel structures) of structural/semi-structural elements resulting in no leakage.

**Category S2: Damaged but can provide service for an extended period of time**

Moderate to minor damages resulting in minor leakage requiring repairs on the timely but not necessarily immediate basis. No interruption of service or threat to the surrounding community.

**Category S3: Heavily Damaged but can provide short-term service**

Heavy but repairable damage (roof/wall cracks, but no collapse) resulting in leakage but not enough to immediately threaten/immediate the surrounding community and the facility is still functional and may remain in service for a period of time immediately following a seismic event. Breaching of the roof, walls or floor and the possible contamination from the outside elements may result making the water unsuitable for human consumption, but may be used for other non-potable purposes.

**Category S4: Collapse: Must be taken out of service immediately**

Failure resulting in collapse or failure requiring the facility to be taken out of service and will require major repairs or replacement of entire structural components. Roofs and/or their supports/wall connections may fail causing them to fully or partially collapse and fall into the reservoir. Walls may be breached and piping/piping connections ruptured causing a rapid loss of water and possible inundation of the surrounding community.

**Rating & Appurtenances (PA)**

**Category PA1: Acceptable Condition**

No improvement or remediation needed

**Category PA2: Needs Improvement**

Low short term possibility of injury or loss of use if addressed during next maintenance period (within 2 years maximum)

**Category PA3: Needs Heavier Improvement**

Medium term possibility of injury or loss of use if not addressed in a timely manner (within 1 year maximum)

**Category PA4: Needs Immediate Improvement**

Highly possibility of injury or loss of use if not addressed immediately

### Task 5 – Additional Engineering Services (OPTIONAL TASK)

- A. This Task shall include a City controlled allowance for additional engineering services. The value of this task shall be 5 percent of the total project fee, less this task. Note that in the cost breakdown that includes optional tasks 5, we added 5 percent of our labor hours.

### Task 6 – Knowledge Transfer Session (OPTIONAL TASK)

- A. The Tetra Tech project manager, and key members of the engineering staff that were assigned to this project, will conduct a two-hour knowledge transfer session at the conclusion of the project for City staff. The session shall include a PowerPoint presentation and handouts with relevant photos and exhibits as necessary to convey the key issues of the project. The meeting will be held via a teleconference.

**EXHIBIT "B"**  
**COMPENSATION**

**CITY OF RIVERSIDE  
RFP 2141**

(Exhibit F - Fee Workshop Cost) - ADDENDUM NO. 2

Task No.	Description	Work-hours by Classification						Total Hours	Fees			
		QA-QC Manager	Project Manager	Staff Engineer	Lead Safety	CAD Designer	Clerical		Labor	ODC's	Sub-Contractors	Total Cost
		\$85.00	\$71.67	\$43.33	\$46.67	\$46.67	\$33.33					
		3.0	3.0	3.0	3.0	3.0	3.0					
		\$255.00	\$215.00	\$130.00	\$140.00	\$140.00	\$100.00					
1	<b>Task 1 - PROJECT MANAGEMENT SERVICES</b>											
	1A. Kickoff Meeting	2	4	2			2	10	\$1,830			\$1,830
	1B. Team Meetings		4	2			6	12	\$1,720			\$1,720
	1C. Billing Breakdown		4				4	8	\$1,260			\$1,260
	1D. Budget Summary		4				4	8	\$1,260			\$1,260
	<b>Task 1 Subtotal</b>	2	16	4	0	0	16	38	\$6,070	\$0	\$0	\$6,070
2	<b>Task 2 - PRELIMINARY ENGINEERING SERVICES</b>											
	2A. Review City Records		12	18				30	\$4,920			\$4,920
	<b>Task 2 Subtotal</b>	0	12	18	0	0	0	30	\$4,920	\$0	\$0	\$4,920
3	<b>Task 3 - FIELD INSPECTION SERVICES</b>											
	3A. Field Inspections (Excluding Underside of Roof)		24	24	27			75	\$12,060	\$1,980		\$14,040
	3B. Field Inspections (Underside of Roof, using Kayak or other approved methods)		24	24	27			75	\$12,060	\$1,980		\$14,040
	<b>Task 3 Subtotal</b>	0	48	48	54	0	0	150	\$24,120	\$3,960	\$0	\$28,080
4	<b>Task 4 - ENGINEERING AND SEISMIC EVALUATION SERVICES</b>											
	4A. Site Specific Evaluation		18	96				114	\$16,350			\$16,350
	4B. Prepare Report	6	48	78		24	8	164	\$26,150			\$26,150
	4C. Submit Draft Report		1			1	2	4	\$555			\$555
	4D. Submit Final Report	2	6	9		4	2	23	\$3,730			\$3,730
	<b>Task 4 Subtotal</b>	8	73	183	0	29	12	305	\$48,785	\$0	\$0	\$48,785
5	<b>Task 5 - ADDITIONAL ENGINEERING SERVICES (Optional Task)</b>											
	5A. Additional Services		10	12		4	1	27	\$4,370			\$4,370
	<b>Task 5 Subtotal</b>	0	10	12	0	4	1	27	\$4,370	\$0	\$0	\$4,370
6	<b>Task 6 - KNOWLEDGE TRANSFER SESSION (Optional Task)</b>											
	6A. Conduct Knowledge Transfer Session	4	6	8		1	1	20	\$3,590			\$3,590
	<b>Task 6 Subtotal</b>	4	6	8	0	1	1	20	\$3,590	\$0	\$0	\$3,590
	<b>TOTAL ESTIMATED FEE</b>	14	165	273	54	34	30	570	\$88,855	\$3,960	\$0	\$93,815

**EXHIBIT "C"**

**KEY PERSONNEL**

With the depth and resources of a large firm, complemented by our local, close-knit teams of experienced professionals, most locally educated and having spent their professional careers in the locale where they are based. Tetra Tech is highly regarded by its clients and among its peers in the fields of infrastructure and transportation. We pledge to provide you with the required design services in a professional and cooperative manner that will enhance a high level of service to the City and all project stakeholders. The Tetra Tech team is committed to open communications, joint problem solving, partnering, and teamwork to accomplish the goals of the assignment.

## **COMPANY PERSONNEL: Section 4**

### **TEAM QUALIFICATIONS**

The work on this project will be performed by structural design team located in San Dimas. Our structural design team includes our own in-house staff of structural engineers, which includes **two California Registered Structural Engineers**, both with experience in the seismic rehabilitation and retrofit of concrete and steel reservoirs; both of these structural engineers will be assigned to your project. Our team of engineers has an extensive history of successful reservoir rehabilitation and design projects and is experienced in the designing, detailing, seismic analysis and construction of conventional reinforced rectangular concrete reservoirs. This experience will be valuable in the evaluation and analysis of the existing reservoir structures.

The ability to successfully evaluate, plan, design and rehabilitate existing municipal water storage reservoirs is a niche area of structural engineering expertise, which involves knowledge and experience beyond that required for the design of buildings. The analysis of reservoir structures must consider not only the static loading imposed by millions of gallons of water in the structure, but more importantly, the dynamic loading imposed on the structure when those millions of gallons of water accelerate due to seismic activity. The structural design considerations that are required to control cracking in reservoirs exceed the design requirements for buildings in complexity and importance. Other important design considerations include the proper ventilation, safe access onto and into the reservoirs, and seismic flexibility at piping connections. The structural engineering group at Tetra Tech has the experience and expertise to accurately evaluate your reservoirs.

### **PROJECT TEAM**

Tetra Tech's strength lies in the qualifications of our project team, the individual team member's commitment of our firm, and our knowledge of reservoir design. These strengths will allow us to respond to the City's requirements of this project. Our project team is made up of structural engineering design professionals whose specialty is structural engineering of water storage structures.

Tetra Tech's structural engineering team includes professionals with proven experience, who have delivered many similar reservoir structural/seismic evaluation, rehabilitation and design projects with unparalleled technical excellence. Our team members have demonstrated their ability to resolve complex issues and produce cost-effective planning as well as design documents for water storage facilities throughout California. More specifically, each team member has an established record of successful accomplishments in the engineering discipline of his expertise. Tetra Tech has recently work on the Emtman, University Heights, Ross, Alessandro and Sugarloaf Reservoirs Structural Assessment and Seismic Evaluation projects for City of Riverside. We are familiar with The City's workflow, and we have thorough understanding of City's

expectations and requirements. The same team who worked on these previous projects will be assigned to work on the project in this RFP, and we are confident to deliver this project efficiently and successfully.

All of our engineering and design services will be performed by our own in-house staff of experts, as depicted on the Team Chart.

### PROJECT TEAM ORGANIZATION AND KEY PERSONNEL RESPONSIBILITIES

The successful execution of the field investigations and structural analysis for the Piedmont, Campbell, and Heustis reservoirs involves many challenges. Experienced staff will be assigned to your project from start to finish, ensuring that valid information is developed, and sensitive issues are resolved. All phases of the project will require thoroughness and attention to detail to make certain that the project goes smoothly, and the City gets first-class final deliverables.

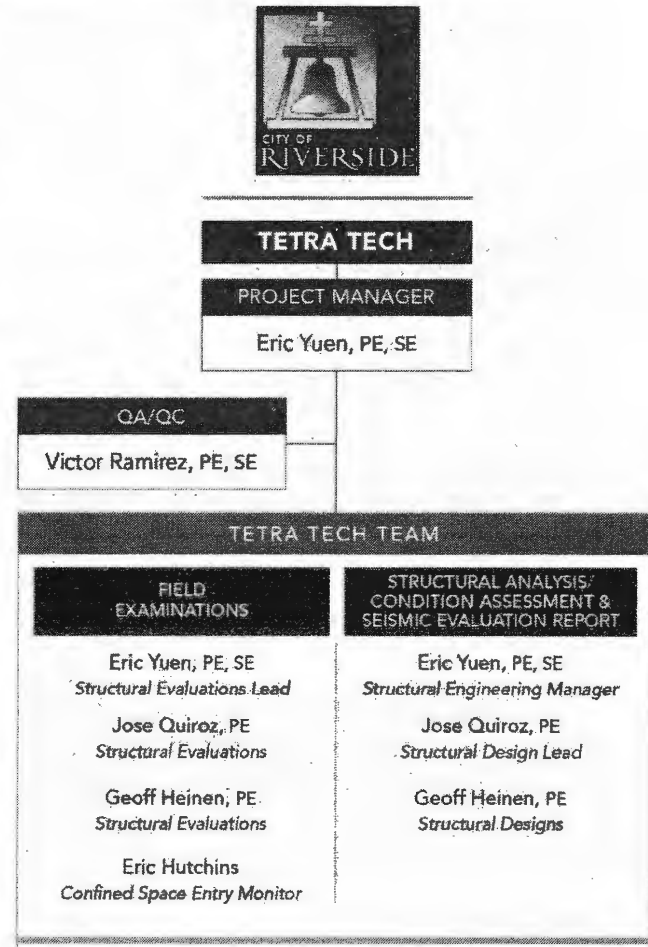
### EXPERIENCE OF THE PROJECT MANAGER AND KEY STAFF MEMBERS

The following Key Team Members have experience with the City of Riverside and have worked on the Emtman, University Height, Ross, Alessandro and Sugarloaf Reservoirs' Condition Assessment and Seismic Evaluations.

**Project Manager** – The stewardship of Eric Yuen, P.E., S.E. will be the driving force behind the proposed Tetra Tech Team. He will be a focal point for communications between the City and members of the Project Team to ensure that project needs are clearly spelled out and understood. As Project Manager, Mr. Yuen will be responsible for achieving the City's stated goals, assessing viable alternatives considered, and ensuring compliance with project intent, completeness of the final deliverables, conformance to the project schedule, and satisfaction of the City.

Mr. Yuen has over 14 years of structural engineering design experience, with special emphasis in the evaluation, rehabilitation and design of water storage and containment structures. The reservoir structures in Mr. Yuen's experience have been water storage reservoirs of various types, including conventionally reinforced and prestressed concrete, welded steel and bolted steel.

**QA/QC Manager** – Victor Ramirez, P.E., S.E. – Mr. Ramirez heads the structural division of Tetra Tech's Southwest Water/Wastewater Group located in Southern California. He has over 40 years of design experience in the new construction and seismic retrofitting of concrete and steel reservoirs, all with Tetra Tech. He has been involved in the design of over three dozen new concrete reservoirs, ranging in size from 1.0 to 33.0 MG, and over 75 steel reservoirs, the largest of which was over 10 MG. He has



\*Resumes of these Key Team members are included in the Appendix

served as project manager for the seismic evaluation and seismic retrofit of dozens of water storage reservoirs of all types and configurations.

**Structural Design Lead –Jose Quiroz, P.E.** – Mr. Quiroz has spent his entire career working closely with Mr. Ramirez and Mr. Yuen in the design of both new concrete reservoirs, preform analysis to existing concrete reservoirs and design seismic retrofitting of existing concrete reservoirs, all of which has been with Tetra Tech. He will be taking the lead on performing the structural and seismic analysis for the concrete reservoirs.

## REFERENCES AND EXPERIENCE: Section 5

Tetra Tech has not filed for bankruptcy in the past 5 years under any of our business names.

### REFERENCES (WITHIN THE PAST 10 YEARS)

Client	Contact	Projects
City of Riverside Public Utilities Department 3900 Main Street Riverside, CA 92522	Taylor Wilson 951-826-5434 TaWilson@riversideca.gov	Condition Assessment and Seismic Evaluation of the Emtman, University Heights and Ross Reservoir 2021
City of Riverside Public Utilities Department 3900 Main Street Riverside, CA 92522	John D. Farley 951-826-5705 jfarley@riversideca.gov	Structural and Seismic Evaluation of the Alessandro and Sugarloaf Reservoirs 2019-2020
Monte Vista Water District 10575 Central Ave Montclair, CA 91763	John Hughes 909-267-2185 jhughes@mvwd.org	Structural and Seismic Evaluation of Reservoir No.16 2021
Golden State Water Company 1920 West Corporate Way, Anaheim, CA 92801	Long Thai, PE 714-296-4319 Long.Thai@gswater.com	Structural and Seismic Evaluation of Hunting Horn Reservoir 2018-2019 Hunting Horn Reservoir Replacement 2021 Structural and Seismic Evaluation of Clearview Reservoirs 2019-2020
City of Fullerton 303 W. Commonwealth Fullerton, CA 92832	Tiffany Foo, PE 714-738-6321 TFoo@cityoffullerton.com	Structural Evaluation and Rehabilitation of the Lower Acacia Reservoir (1-D) 2017-2019
Lincoln Avenue Water Company 564 W Harriet St., Altadena, CA 91001	Jennifer Betancourt 626-798-9101 Jennifer@lawc.org	Structural and Seismic Evaluation and Rehabilitation of North* Glenrose Reservoir 2019
City of Glendora 116 East Foothill Blvd. Glendora, CA 91741	Alison Sweet, PE, 626-914-8246 asweet@cityoglendora.org	Structural and Seismic Evaluation and Rehabilitation of Sierra Madre Reservoir 2015-2018
Suburban Water Systems 1325 N. Grand Avenue, Suite 100, Covina, CA 91724	Jorge Lopez, PE 626-543-2518 nau@swwc.com	Structural and seismic Evaluation of Plant 128 Reservoir 2018-2019
Montecito Water District 583 San Ysidro Road Santa Barbara, CA 93108	Adam Kanold, PE 805-456-9802 akanold@montecitowater.com	Structural and Seismic Evaluation of 10 Storage Reservoirs 2015 Toro Canyon Reservoir Roof Replacement 2017 Bella Vista Reservoir WQ Improvements 2018 Structural Retrofit and Replacement of Eight Storage Reservoir 2021

The following pages give detailed information of projects we have done within the last 5 years that are similar in scope.

