

CITY OF SAN PABLO
AGREEMENT FOR CONSULTING SERVICES
Project No. 0904 RAC Sustainable Bay / Agreement No. 1

THIS AGREEMENT ("**Agreement**"), dated and effective this 19 day of February, 2020 ("**Effective Date**"), is by and between the City of San Pablo, a municipal corporation organized and existing under the laws of the State of California, ("**City**"), and Geosyntec Consultants, Inc., a consulting and engineering firm, ("**Consultant**") (individually, a "**Party**," and collectively, the "**Parties**").

RECITALS

WHEREAS, the City desires to engage a consultant to provide consultant services for the development of a regional alternative compliance water quality crediting/trading/banking system to the City ("**Services**") as further set forth in this Agreement;

WHEREAS, the City desires to engage a consultant who will act at all times in the City's best interest will respect the trust and confidence placed in that consultant by the City; and

WHEREAS, Consultant has represented to City that Consultant has the special training, skill, competence and expertise necessary to provide the Services needed by the City; desires to enter into this Agreement with the City as an independent contractor; and is willing to provide the Services on the following terms and conditions.

NOW, THEREFORE, Consultant and the City agree as follows:

TERMS AND CONDITIONS

(1) Scope of Services.

A. **Scope of Services.** Consultant agrees to provide the Services to the City as specified in, collectively, the scope of services set forth in the City's Request for Proposals, dated November 21, 2019 and any addenda thereto ("**RFP**"), attached as **Exhibit A** and incorporated herein, and the scope of services set forth in Consultant's proposal dated January 9, 2020 ("**Proposal**"), attached as **Exhibit B** and the Consultant's clarifying Scope of Work dated February 5, 2020, attached as **Exhibit C** and incorporated herein. In the event of any conflict or inconsistency between any of the terms of the RFP, the Proposal, and this Agreement, the terms most favorable to the City will prevail. Any services not encompassed in this Section (1) are additional services ("**Additional Services**") subject to prior written authorization by the City, as further specified below in Section (3), "Additional Services."

B. **Quality of Performance.** Consultant will provide the Services and any authorized Additional Services in accordance with the standards of its profession; in accordance with the terms, conditions, and objectives of this Agreement; and in a manner satisfactory to the City Manager or his or her authorized delegee ("**City Manager**"). Consultant represents that it possesses the necessary skills, background, and licenses to perform the Services or Additional Services. Consultant is solely responsible for the quality and suitability of the Services it provides pursuant to this Agreement. If, during the course of this Agreement, the City Manager notifies Consultant that the Services are not satisfactory, in whole or in part, Consultant will promptly take the corrective action required by the City Manager, at no extra cost to the City. Failure to promptly take such corrective action constitutes a material breach of this Agreement and cause for

termination in the City's discretion. This standard of care will not be construed to impose a mandatory duty on the City within the meaning of Government Code section 815.6. The City's acceptance of Services performed under this Agreement will not operate to waive or release Consultant's obligation under this paragraph.

C. **Time is of the Essence.** In the performance of this Agreement, time is of the essence. Consultant must be available to begin providing the Services upon the Effective Date of this Agreement, and must complete the Services within the time specified in Section (4), "Effective Date and Term."

D. **Primary Service Provider.** The City has approved of Kelly Havens as Consultant's primary provider of the Services under this Agreement, and no other person will be accepted as the primary provider of the Services without the City's prior written consent.

(2) **Compensation.** As full compensation for the satisfactory and timely performance of the Services as specified in Section (1), "Scope of Services," and the attached exhibits, City hereby agrees to pay Consultant a sum not to exceed **Four Hundred Seventy Thousand Nine Hundred and Fifty-Two Dollars (\$470,952)** as follows:

Consultant will be paid all undisputed amounts within thirty (30) days of City's receipt of detailed invoices for Services provided to the City Manager's satisfaction during the preceding calendar month. Invoices must include all of the information contained in Section (7), "Billings," below. Each invoice must be signed by an authorized representative of Consultant, verifying that the invoiced Services have been performed. Consultant will not be entitled to compensation for Additional Services, as defined below in Section (3), unless authorized by City in writing in advance, and memorialized in an amendment to this Agreement executed by the authorized representatives of each Party. This Section (2) supersedes any conflicting or inconsistent provisions in the Proposal.

(3) **Additional Services.** In addition to the Services included in Section (1), "Scope of Services," the Parties may from time to time agree that Consultant will provide Additional Services for additional compensation, as authorized by the City Manager. The nature and scope of the Additional Services, including the time for performance and terms for mutually agreeable additional compensation must be memorialized in a writing, executed by both Parties, as further specified in Section (25), "Amendments," before Consultant may begin providing the Additional Services. Consultant will not be entitled to compensation for any Additional Services performed without a written amendment to include the Additional Services in this Agreement. If Consultant believes that services that it is directed to perform by City are not included in Section (1), "Scope of Services," Consultant will promptly notify the City in writing of the basis for this belief. If the City agrees that the subject services are not included in Section (1), "Scope of Services," the Parties will promptly execute a writing to authorize the services as Additional Services for mutually agreed-upon additional compensation. Except as otherwise specified in the written authorization, all Additional Services are subject to the same terms and conditions as all Services under this Agreement, including, billing, record-keeping, reporting, insurance, indemnity, and compliance with all applicable laws and standards.

(4) **Effective Date and Term.** The term of this Agreement ("**Term**") begins on the Effective Date set forth above, and expires on December 2022. If the Term expires later than the end of the City's fiscal year, the continuation of the Term into the next fiscal year will be contingent upon the City's lawful encumbrance or appropriation of new funds for the Agreement.

(5) **Assignment and Subcontracting.** A substantial inducement to City for entering into this Agreement was, and is, the reputation and competence of Consultant. The assignment or subcontracting of this Agreement by Consultant, or any interest therein, is prohibited without the prior written approval of the City Manager. The City has authorized Consultant to use the following Subconsultants/Subcontractors as specified:

<u>Subconsultant/Subcontractor Name</u>	<u>Subconsultant/Subcontractor Services</u>
Kieser & Associates, LLC	Environmental market-based consultant services
EOA, Inc.	Engineering & water quality consultant services
Panorama Environmental, Inc.	CEQA and facilitation consultant services
Bespoke Mitigation Partners	Water quality & finance consultant services

(6) **Independent Contractor Status.** It is expressly understood and agreed by the Parties that Consultant, while providing Services pursuant to this Agreement, is an independent contractor and not an employee of the City. Consultant is solely responsible for the means and methods by which it provides the Services. Consultant is solely responsible for all matters relating to the payment of its employees, including compliance with social security, withholding tax and all other laws and regulations governing such matters. Consultant is solely responsible for its own acts and those of its agents and employees during the Term of this Agreement. Consultant will not represent, at any time or in any manner, that Consultant is an employee of the City. Consultant will exercise its judgment in recommending to City the methods by which to accomplish City's objectives and needs. Consultant acknowledges that the City will provide no training. Consultant will provide whatever tools and materials that are necessary to complete a client engagement. Consultant is free to accept, and has accepted in the past, other client engagements. Consultant is responsible for purchasing, bringing, providing, and controlling any and all equipment, tools, instruments, etc. needed for completion of the Services set forth herein, as well as for maintenance and use of such equipment. It is understood that Consultant is hired on a temporary basis only, and that if the City and/or Consultant desires to continue Consultant's services after expiration of the Term or termination of this Agreement, Consultant must enter into a new agreement.

(7) **Billings.** Consultant's invoices must include the following information: (a) a brief description of Services performed, including any Additional Services; (b) the date the Services were performed; (c) the number of hours spent and by whom; (d) the current Agreement not-to-exceed amount; (e) the amount previously billed; (f) the total paid to date; (g) the outstanding balance due, if any; (h) the current invoice amount; (i) total amount billed against the Agreement to date; (j) the remaining balance of the not-to-exceed amount; and (k) the Consultant's signature. Except as specifically authorized by City, Consultant will not bill City for duplicate Services performed by more than one person. Consultant may not submit any billing for an amount in excess of the maximum amount of compensation authorized in Sections (2) and (3), above. Consultant is solely responsible for its office and overhead costs, including furniture and equipment rental, supplies, salaries of employees, telephone calls, postage, advertising, and all other expenses incurred by Consultant in the performance of this Agreement.

(8) **Advice and Status Reporting.** Consultant will provide the City with timely reports, orally or in writing, of all significant developments arising during performance of its Services, and provide the City with information as is necessary to enable City to monitor the performance of this Agreement, including statements and data demonstrating the effectiveness of the Services provided in achieving the City's express goals and objectives. The City may withhold payments otherwise due to Consultant pending timely delivery of all such reports and information.

Consultant will promptly notify the City Manager of any matters that could adversely affect Consultant's ability or eligibility to continue to provide Services under this Agreement.

(9) **Retention of Records.** Consultant's complete files, including all records, employee time sheets, and correspondence pertaining to the Services will be available for review by the City upon request, and copies of pertinent reports and correspondence will be furnished for the City's files upon request by the City. Consultant will maintain adequate documentation to substantiate all charges for hours and materials charged to City under this Agreement. Consultant will maintain the records and any other records related to the Services or this Agreement and will allow City access to such records for a period of four years after the expiration of the Term or termination of the Agreement. At City's request, or upon expiration or termination of this Agreement, Consultant will return to City all plans, maps, cost estimates, project financial records, reports, and related documents. All research information, plans, diagrams, financial records, reports, cost estimates or other documents prepared or obtained under the terms of this Agreement will be delivered to and become the property of the City and all data prepared or obtained under this Agreement will be made available, upon request, to the City without restrictions or limitations on their use. This Section (8) will survive expiration of the Term or termination of the Agreement.

(10) **Written Reports and Documents.** In accordance with Government Code section 7550, if the total compensation paid to Consultant under this Agreement exceeds \$5,000, any document or written report prepared by Consultant for or under the direction of City will contain the numbers and dollar amounts of all contracts and subcontracts relating to the preparation of such document or written report. The contract and subcontract numbers and dollar amounts shall be contained in a separate section of such document or written report. When multiple documents or reports are the subject or product of this Agreement, the disclosure section may also contain a statement indicating that the total contract amount represents compensation for multiple documents or reports.

(11) **Record and Fiscal Control System.** Consultant will maintain its financial records and fiscal control systems in a commercially reasonable manner. Consultant will maintain personnel and payroll records to adequately identify the source and application of all received funds; withhold income taxes; pay employment taxes (including Social Security), unemployment compensation, worker's compensation and other taxes as may be due. Consultant will maintain an effective system of internal control to assure that funds provided through the City are used solely for authorized purposes.

(12) **Access to Records; Audits.** The City will have access at any time during normal business hours and as often as necessary to any bank account and books, records, documents, accounts, files, reports, and other property and papers of Consultant relating to the Services to be provided under this Agreement for the purpose of making an audit, review, survey, examination, excerpt or transcript.

(13) **Consultant's Testimony.** Unless the Services include serving as an expert witness, Consultant agrees to consult with City and testify at City's request at no additional cost other than normal witness fees if litigation is brought against City in connection with Consultant's Services. This Section (12) will survive expiration of the Term or termination of the Agreement.

(14) **Assignment of Personnel.** Consultant will only assign competent and qualified personnel to perform the Services. If City asks Consultant to remove a person assigned to the Services, Consultant agrees to do so immediately regardless of the reason, or the lack of a reason, for City's request.

(15) **Insurance.** Before it may begin performing Services under this Agreement, Consultant must procure and provide proof of the insurance coverage and endorsements required by this Section in the form of certificates and endorsements acceptable to City. The required insurance must cover the activities of Consultant and its subconsultants or subcontractors relating to or arising from the performance of the Services, and must remain in full force and effect at all times during the Term of the Agreement. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VII" or better. If Consultant fails to provide any of the required coverage in full compliance with the requirements of this Agreement, City may, at its sole discretion and in addition to any other remedies, purchase such coverage at Consultant's expense and deduct the cost from payments due to Consultant, suspend performance of the Services under the Agreement, or terminate Consultant for default. The procurement of the required insurance will not be construed to limit Consultant's liability under this Agreement or to fulfill Consultant's indemnification obligations under this Agreement. If coverage limits carried by Consultant exceed the minimum limits specified below, the higher limits will be deemed to be required by this Agreement.

A. **Policies and Limits.** Consultant must procure and maintain the following insurance policies and limits at all times during the Term of this Agreement:

1. **Commercial General Liability Insurance ("CGL"):** The CGL policy must be issued on an occurrence basis, written on a comprehensive general liability form (CG 00 01), and must include coverage for liability arising from the operations of Consultant or its subconsultants or subcontractors in the performance of the Services, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits of at least \$2,000,000.00 per occurrence. The CGL coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth herein.
2. **Automobile Liability:** The automobile liability policy must provide coverage of at least \$1,000,000.00 combined single-limit per accident for bodily injury, death or property damage.
3. **Workers' Compensation Insurance and Employer's Liability:** The policy must comply with the requirements of the California Workers' Compensation Insurance and Safety Act, providing coverage of at least \$1,000,000.00, or as otherwise required by law.
4. **Professional Liability:** The professional liability insurance policy must insure against the Consultant's errors and omissions in the provision of Services under this Agreement, in an amount not less than \$1,000,000.00 combined single limit. Any deductible or self-insured retention may not exceed \$50,000. The professional liability policy must include prior acts coverage sufficient to cover all Services provided by the Consultant for this Agreement, and the coverage must continue in effect for five years following final payment to Consultant. The following provisions apply if the professional liability policy is written on a claims-made form:

- a. The retroactive date of the policy must be shown and must be on or before the Effective Date of the Agreement.
- b. The insurance must be maintained and evidence of insurance must be provided for a continuous period of at least five years following expiration of the Term or termination of the Agreement, whichever occurs first.
- c. If the coverage is canceled or not renewed and is not replaced with another claims-made policy form with a retroactive date that is on or before the Effective Date of this Agreement, Consultant must provide extended reporting coverage for a minimum of five years following expiration of the Term or termination of the Agreement, whichever occurs first. The City has the right to procure, at Consultant's cost, any extended reporting provisions of the policy if the Consultant cancels or fails to renew the coverage.
- d. A copy of the claim reporting requirements must be submitted to the City before Consultant may begin performing Services under this Agreement.

B. **Required Endorsements.** The insurance provided by Consultant must include the following endorsements as specified below. The endorsements must be executed by a person authorized to bind the issuing insurer. The endorsements are to be provided on forms provided, specified, or approved by the City. As an alternative to the City's forms, the Consultant's insurer(s) may provide complete copies of all required insurance policies, including endorsements.

1. **Additional Insured Endorsements:** The General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

- a. The City, its officers, officials, employees, and volunteers ("**Additional Insureds**") will be covered as additional insureds with respect to all covered liability. This must be provided in the form of an additional insured endorsement to the Consultant's insurance policy, using form CG 20 10 11 85, forms CG 20 10 10 01 and GC 20 37 10 01, or equivalent approved by the City. For design professionals form CG 20 07 may be used. Alternatively, the additional insured endorsement may be provided as a separate owner's policy that complies with all of the requirements set forth in this Section 15.
- b. The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the policies will apply as though separate policies have been issued to each of the Additional Insureds.
- c. The insurance provided by the Consultant is primary and no insurance or self-insurance held or owned by any of the Additional Insureds may be called upon to contribute to a loss or defense.
- d. Any failure by Consultant to comply with the reporting requirements for a policy will not affect nor abridge the coverage provided for any Additional Insureds.
- e. The coverage or endorsement will not contain any limitations on the scope of protection available to the Additional Insureds.

2. **Notice:** Each insurance policy required by this clause must provide or be endorsed to state that coverage will not be reduced, canceled, or allowed to expire without at least 30 days written notice to the City, unless due to non-payment of premiums, in which case 10 days written notice is required.
3. **Waiver of Subrogation:** Each required policy must include an endorsement providing that the insurer will waive any right of subrogation it may have against the City. Consultant hereby agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss.

C. **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions for the required insurance policies are subject to prior approval by the City Manager. Before beginning performance of the Services, Consultant must disclose the amounts of the deductibles and self-insured retentions that apply to the required policies. If the City Manager determines that the deductible or self-insured retention for any required policy is unacceptably high, at the option of City, (1) the insurer must reduce or eliminate the deductible or self-insured retention with respect to the Additional Insureds, or (2) the Consultant must provide a bond or financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration, and defense expenses. During the Term of this Agreement, Consultant may not increase any deductibles or self-insured retentions with respect to the Additional Insureds, without the prior written consent of the City Manager. The City Manager may condition such consent upon the Consultant procuring a bond or financial guarantee that is satisfactory in form to the City, guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

D. **Subconsultants or Subcontractors.** Consultant must ensure that each subconsultant or subcontractor is required to maintain the same insurance coverage required for Consultant under this Section (15), with respect to its performance of Services, including the required endorsements. Consultant must confirm that each subconsultant or subcontractor has complied with these insurance requirements before the subconsultant or subcontractor is permitted to begin Services under this Agreement. Upon request by the City, Consultant must provide certificates and endorsements submitted by each subconsultant or subcontractor to prove compliance with this requirement. The insurance requirements for subconsultants or subcontractors do not replace or limit the Consultant insurance obligations.

(16) **Indemnification.** The terms and conditions set forth in subsection 16(A), below, are applicable to this Agreement if the Services to be provided by Consultant are not “design professional” services as used and defined in Civil Code section 2782.8 (architect, landscape architect, engineering, or land surveyor services). The terms and conditions set forth in subsection 16(B), below, are applicable to this Agreement if the Services to be provided by Consultant are “design professional” services as used and defined in Civil Code section 2782.8 (architect, landscape architect, engineering, or land surveyor services).

A. **Indemnification by Non-Design Professionals.** Consultant shall, to the fullest extent permitted by law, indemnify, defend (with counsel acceptable to the City) and hold harmless City, and its employees, officials, volunteers and agents ("**Indemnified Parties**") from and against any and all losses, claims, damages, costs and liability of every nature arising out of or resulting from the performance of this Agreement by Consultant, its officers, employees, agents, volunteers, subcontractors or sub-consultants, excepting only liability arising from the sole negligence, active negligence or willful misconduct of City. Liabilities subject to the duties to defend and indemnify include, without limitation, all claims, losses, damages, penalties, fines,

and judgments; associated investigation and administrative expenses; defense costs, including but not limited to reasonable attorneys' fees; court costs; and costs of alternative dispute resolution.

1. The duty to defend is a separate and distinct obligation from the Consultant's duty to indemnify. The Consultant shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, with counsel approved by the City, the City and its directors, officers, and employees, immediately upon tender to the Consultant of the claim in any form or at any stage of an action or proceeding, whether or not liability is established. An allegation or determination of comparative active negligence or willful misconduct by an Indemnified Party does not relieve the Consultant from its separate and distinct obligation to defend City. The obligation to defend extends through final judgment, including exhaustion of any appeals. The defense obligation includes an obligation to provide independent defense counsel if the Consultant asserts that liability is caused in whole or in part by the negligence or willful misconduct of an Indemnified Party. If it is finally adjudicated that liability was caused by the sole active negligence or sole willful misconduct of an Indemnified Party, Consultant may submit a claim to the City for reimbursement of reasonable attorneys' fees and defense costs.

2. In the event that Consultant or any employee, agent, subconsultant or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("**PERS**") to be eligible for enrollment in PERS as an employee of City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, subconsultants or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

3. The review, acceptance or approval of the Consultant's Services or work product by any Indemnified Party shall not affect, relieve or reduce the Consultant's indemnification or defense obligations. The provisions of this Section are not limited by and do not affect the provisions of this Agreement relating to insurance.

4. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply.

5. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration, and that these provisions survive the termination of this Agreement.

B. Indemnification by Design Professionals. Consistent with California Civil Code section 2782.8 ("**section 2782.8**"), when the Services to be provided under this Agreement are to be performed by a "design professional," as that term is defined under section 2782.8, Consultant shall, to the fullest extent permitted by law, indemnify, defend and hold harmless City, and its employees, officials, volunteers and agents ("**Indemnified Parties**") from and against any and all losses, claims, damages, costs and liability of every nature, including reasonable attorneys' fees and costs, to the extent caused in whole or in part by any negligence, recklessness, or willful misconduct of Consultant, its officers, employees, agents, subconsultants or subcontractors in performance of the Services under this Agreement, but excluding the sole or active negligence or willful misconduct of one or more of the Indemnified Parties. Defense costs

shall not exceed Consultant's proportionate percentage of fault, except as set forth in section 2782.8.

1. In the event that Consultant or any employee, agent, subconsultant or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("**PERS**") to be eligible for enrollment in PERS as an employee of City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, subconsultants or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

2. The review, acceptance or approval of the Consultant's Services or work product by any Indemnified Party shall not affect, relieve or reduce the Consultant's indemnification or defense obligations. The provisions of this Section are not limited by and do not affect the provisions of this Agreement relating to insurance.

3. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply.

4. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration, and that these provisions survive the termination of this Agreement.

(17) Licenses. If a license of any kind, which term is intended to include evidence of registration, is required of Consultant, its employees, agents, or subcontractors by federal or state law, Consultant warrants that such license has been obtained, is valid and in good standing, and Consultant shall keep it in effect at all times during the term of this Agreement, and that any applicable bond has been posted in accordance with all applicable laws and regulations. Consultant, its subconsultants, and subcontractors, will obtain and maintain a City of San Pablo Business License at all times during the Term of this Agreement.

(18) Employment Practices.

- A. **Employment of Local Residents.** Pursuant to the San Pablo Economic Opportunity Policy, the Consultant and any subcontractors shall contact the San Pablo Economic Development Corporation ("**EDC**") at info@sanpabloedc.org or 510-215-3200, at least ten business days prior to hiring or staffing for fulfillment of the Agreement, describing number, duties and qualifications needed for available positions, and shall fairly consider for employment any workers referred by the EDC within three business days. "**Local Resident**" means an individual having an adjusted household income of less than the Area Median Income for Contra Costa County, and domiciled in the City of San Pablo as of the relevant hiring date, with "domiciled" as defined by Section 349(b) of the California Election Code. Discrimination against Local Residents on the basis of their local status is prohibited.
- B. **Compliance With Law.** Consultant represents that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal opportunity employment. Consultant shall not discriminate in the employment of any person

because of race, color, national origin, ancestry, physical or mental disability, medical condition, marital status, sex, age, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment and Housing Act. Consultant shall comply with all applicable provisions of the Americans with Disabilities Act of 1990 (“ADA”) in performing its obligations under this Agreement. Failure to comply with the provisions of the ADA shall be a material breach of, and grounds for the immediate termination of, this Agreement. In performing Services and providing services under this Agreement, Consultant shall, at its sole cost and expense, comply with all applicable laws of the United States and the State of California; the Ordinances of the City of San Pablo; and the rules, regulations, orders, and directions of their respective administrative agencies and the officers thereof.

(19) Local Subcontracting – Outreach. Consultant shall contact the EDC at info@sanpabloedc.org or 510-215-3200) at least two weeks prior to any subcontract award, providing notice and details regarding subcontracting opportunity. The EDC shall notify qualified local businesses of subcontracting opportunities, and provide technical assistance to qualified local businesses during the subcontracting bidding process.

(20) Termination.

A. City may terminate this Agreement at its sole discretion at any time prior to expiration of the Term or completion by the Consultant of the Services required hereunder. Notice of termination of this Agreement shall be given in writing to the Consultant, and shall be sufficient and complete when same is deposited in the United States Mail, postage prepaid and certified, address as set forth below in Section (21), “Notices.” The Agreement shall be terminated upon the date set forth in the City’s Notice of Termination. If the City terminates this Agreement, the Consultant shall be compensated for all Services satisfactorily performed prior to the time of receipt of cancellation notice, and shall be compensated for materials ordered by the Consultant or its employees, or services of others ordered by the Consultant or its employees, prior to receipt of notice of cancellation whether or not such materials or final instruments of service of others have actually been delivered, provided that the Consultant or its employees are not able to cancel such orders for materials or services of others. Compensation for the Consultant in the event of cancellation shall be determined by City in accordance with the percentage of Services completed and agreed to by the Consultant. In the event of cancellation, all notes, sketches, computations, drawings, and specifications or other data, whether complete or not, remain the property of the City. The City may make copies or extract information from any such notes, sketches, computations, drawings, and specifications, or other data whether complete or not.

B. Termination for Cause. City may terminate this Agreement for cause by providing Consultant with one day’s written notice of such termination if Consultant violates any of the terms and conditions of this Agreement. In City’s discretion and at City’s option, such termination for cause may alternatively be accomplished, where Consultant fails to perform any of the obligations required of Consultant within the time and in the manner provided for under the terms of this Agreement, within seven days after receipt of the notice of such default. Upon City’s termination of this Agreement for cause, City reserves the right to complete the Services by whatever means City deems expedient and the expense of completing such Services, as well as any and all damages to the extent caused by the negligent acts, intentional acts or errors or omissions of the Consultant, shall be charged to the Consultant.

C. Immediate Termination. City may terminate this Agreement immediately in any case where the Consultant engages in fraudulent or criminal activities while performing the

Services, or is otherwise determined to lack the necessary skills to accomplish the desired objectives.

(21) **Ownership of Materials.** Any and all documents, including draft documents where completed documents are unavailable, or materials prepared or caused to be prepared by Consultant pursuant to this Agreement shall be the property of the City at the moment of their completed preparation. All materials and records of a preliminary nature such as survey notes, sketches, preliminary plans, computations and other data, prepared or obtained in the performance of this Agreement, shall be made available, upon request, to City at no additional charge and without restriction or limitation on their use consistent with the intent of the original design.

(22) **Amendments.** This Agreement may be modified or amended only by a written document executed by both Consultant and City's City Manager and approved as to form by the City Attorney. Such document shall expressly state that it is intended by the Parties to amend the terms and conditions of this Agreement.

(23) **Abandonment by Consultant.** In the event the Consultant ceases performing Services under this Agreement or otherwise abandons the Agreement prior to completing all of the Services, Consultant shall, without delay, deliver to City all materials and records prepared or obtained in the performance of this Agreement, and shall be paid for the reasonable value of the Services performed up to the time of cessation or abandonment, less a deduction for any damages or additional expenses which City incurs as a result of such cessation or abandonment. Consultant agrees to be financially responsible and to compensate City for any costs incurred by City in retaining the services of another to replace Consultant, but only to the extent that the costs of retaining the replacement exceed what remaining amounts would have been paid to Consultant under the Agreement had Consultant completed the Services.

(24) **Waiver.** The waiver by either Party of a breach by the other of any provision of this Agreement shall not constitute a continuing waiver or a waiver of any subsequent breach of either the same or a different provision of this Agreement.

(25) **No Third-Party Rights.** The Parties do not intend to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty, covenant, obligation, or undertaking established herein.

(26) **Severability.** Should any part of this Agreement be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of this Agreement, which shall continue in full force and effect, provided that the remainder of this Agreement, absent the unexcised portion, can be reasonably interpreted to give effect to the intentions of the Parties.

(27) **Compliance with Laws.** In the performance of this Agreement, Consultant shall abide by and conform to any and all applicable laws of the United States, the State of California, and City ordinances. Consultant warrants that all Services done under this Agreement will be in compliance with all applicable safety rules, laws, statutes and practices, including but not limited to Cal/OSHA regulations.

(28) **Controlling Law and Venue.** This Agreement and all matters relating to it shall be governed by the laws of the State of California, and venue for any legal action arising from or

relating to this Agreement will be in the Superior Court of Contra Costa County, and no other place. Consultant hereby waives the removal provisions of Code of Civil Procedure section 394.

(29) **Breach.** In the event that Consultant fails to perform any of the Services described in this Agreement or otherwise breaches the Agreement, City shall have the right to pursue all remedies provided by law and equity. Neither payment by the City nor performance by Consultant shall be construed as a waiver of either Party's rights or remedies against the other. Failure to require full and timely performance of any provision, at any time, shall not waive or reduce the right to insist upon complete and timely performance of such provision thereafter. In the event of any suit, action or proceeding brought by either party for breach of any term hereof or to enforce any provision hereof, the prevailing party shall be entitled to recover its reasonable attorney's fees.

(30) **Inspection by Other Agencies.** Authorized representatives of the Federal Government, the California Department of Transportation, or other government agencies which provide grant funding (if any) for this Agreement and the City may have the right to inspect Consultant's work product.

(31) **Conflict of Interest.** Consultant warrants and covenants that Consultant presently has no interest in, nor shall any interest be acquired in, any matter which will render the services required under the provisions of this Agreement a violation of any applicable state, local, or federal law. In the event that any conflict of interest should nevertheless arise, Consultant shall promptly notify City of the existence of such conflict of interest so that the City may determine whether to terminate this Agreement. Consultant further warrants its compliance with the Political Reform Act (Gov. Code section 81000 et seq.) respecting this Agreement. Where City Manager determines, based on facts provided by City staff, that Consultant meets the criteria of section 18701 of the FPPC regulations, the individual providing services under this Agreement shall be considered a "designated employee" under the City's conflict of interest code, and shall be required to complete FPPC Form 700 regarding his or her economic interests in a timely manner.

(32) **Copyright.** Upon City's request, Consultant shall execute appropriate documents to assign to the City the copyright to work created pursuant to this Agreement. The issuance of a patent or copyright to Consultant or any other person shall not affect City's rights to the materials and records prepared or obtained in the performance of this Agreement. City reserves a license to use such materials and records without restriction or limitation consistent with the intent of the original design, and City shall not be required to pay any additional fee or royalty for such materials or records. The license reserved by City shall continue for a period of fifty years from the Effective Date unless extended by operation of law or otherwise.

(33) **Whole Agreement.** This Agreement constitutes the entire understanding and agreement of the parties. This Agreement integrates all of the terms and conditions mentioned herein or incidental hereto and supersedes all negotiations or previous agreements between the Parties with respect to all or any part of the subject matter hereof.

(34) **Multiple Copies of Agreement.** Multiple copies of this Agreement may be executed but the parties agree that the Agreement on file in the office of the City Clerk is the version of the Agreement that shall take precedence should any differences exist among counterparts of the document.

(35) **Notices.** Notices required by this Agreement shall be personally delivered or mailed, postage prepaid, as follows:

To Consultant: Kelly Havens, Senior Engineer
1111 Broadway, 6th Floor, Oakland CA 94607

To the City: City Manager
13831 San Pablo Avenue
San Pablo, CA 94806

Each Party shall provide the other Party with telephone and written notice of any change in address as soon as practicable. Notices given by personal delivery shall be effective immediately. Notices given by mail shall be deemed to have been delivered forty-eight hours after having been deposited in the United States mail.

(36) Federal Funding Requirements (if applicable). If this Agreement is subject to federal funding, in whole or in part, it must comply with the uniform federal award procurement requirements set forth in 2 CFR §§ 200.318 – 200.326, as may be amended from time to time, and contain the applicable provisions described in Appendix II to Part 200 – *Contract Provisions for non-Federal Entity Contracts Under Federal Awards*, which are attached to this Agreement as Exhibit D. In the event of a conflict or inconsistency between Exhibit D, Exhibit E, if applicable, and this Agreement, Exhibit C will control.

☒ This Agreement is subject to federal funding. See Exhibit D.
☐ This Agreement is not subject to federal funding.

(37) Caltrans Funding Requirements (if applicable). If this Agreement is for architectural and/or engineering services subject to reimbursement or funding, in whole or in part, by Caltrans and administered under the Local Assistance Procedures Manual ("LAPM"), it must include the provisions set forth in Exhibit E, *Mandatory Fiscal and Federal Provisions for Architectural and Engineering Consultant Contracts Subject to Caltrans Funding*. In the event of any conflict or inconsistency between Exhibit E and this Agreement, Exhibit D will control.

☐ This Agreement is subject to funding by Caltrans. See Exhibit E.
☒ This Agreement is not subject to funding by Caltrans.

IN WITNESS WHEREOF, Consultant has executed this Agreement, and the City, by its City Manager, who is authorized to do so, has executed this Agreement.

APPROVED AS TO FORM:

CITY OF SAN PABLO
A Municipal Corporation

By _____
Lynn Tracy Nerland, City Attorney

By _____
Matt Rodriguez, City Manager

Geosyntec Consultants, Inc.

By _____
Consultant, Michael Minch, P.E., G.E, Vice President

ATTEST:

By _____
Patricia Ponce, City Clerk

Dated _____

Attachments: Exhibit A: Request for Proposals, dated November 21, 2020
 Exhibit B: Consultant's Proposal, dated January 9, 2020
 Exhibit C: Consultant's Scope of Work dated February 5, 2020
 Exhibit D: Federal Contract Provisions

Exhibit A



CITY_{OF} SAN PABLO

City of New Directions

DEPARTMENT OF PUBLIC WORKS
ENVIRONMENTAL SERVICES DIVISION

REQUEST FOR PROPOSALS

Regional Compliance for a Sustainable Bay: A Water Quality Alternative Compliance Pilot Project

Professional Consultant Services

Release Date:
November 21, 2019

Proposals Due:
January 9, 2020, by 5:00 p.m.

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A. INTRODUCTION

1. About San Pablo

The City of San Pablo is located in West Contra Costa County, off of Interstate 80, minutes away from the Bay Area cultural centers of Berkeley, Oakland and San Francisco. Interstate 80 is the principal arterial route between the Bay Area and Sacramento. The City of San Pablo is nestled between the cities of Pinole and Richmond and by the neighboring cities of El Cerrito and Hercules. Historically one of the oldest Spanish settlements in the region, San Pablo has become a thriving residential and business community with a population of about 31,000 in an area of approximately two and one-half square miles. Additional information about the City can be obtained from the City of San Pablo website: www.sanpabloca.gov.

2. Purpose for Request for Proposals

The City of San Pablo ("City") invites professional consultant services to submit competitive proposals in response to this Request for Proposals ("RFP"). *Regional Compliance for a Sustainable Bay* is a project ("Project") to develop a regional alternative compliance system that will cost-effectively meet water quality objectives for the San Francisco Bay National Pollutant Discharge Elimination System (NPDES) permit. The City seeks proposals for water quality experts with experience in the development of water quality crediting/trading/banking systems. Professional disciplines that may be involved with the Project include, but are not limited to: water quality, green stormwater infrastructure, environmental compliance, legal and regulatory compliance, pay-for-performance, geographic information systems (GIS), accounting, economics, alternative compliance and crediting/trading/banking systems. This Project will also involve consensus building with large numbers of stakeholders; consultants with experience in coordinating and facilitating diverse stakeholder groups is necessary. See **Section 3 "Consultant Services"** in the Scope of Work for full description of the services required.

B. SCOPE OF WORK

1. Project Description

The City of San Pablo, in cooperation with several jurisdictions across the Bay Area, is proposing to establish a regional alternative compliance water quality crediting/trading/banking system. A water quality crediting/trading/banking system has the ability to efficiently and cost-effectively improve water quality, achieve multiple water quality benefits and reduce compliance pressures on jurisdictions. This Project will help promote green stormwater infrastructure/low impact development (GSI/LID) across the Bay Area with the potential for substantial cost savings, all while meeting established water quality goals.

2. Project Background

The San Francisco Bay is contaminated with many legacy pollutants, including polychlorinated biphenyls (PCBs) and mercury, which make their way to the Bay through stormwater runoff and various other pathways. Fish and shellfish contaminated with PCBs and mercury pose health risks to both humans and wildlife. Therefore, in 2010, the United

States Environmental Protection Agency (EPA) approved a Total Maximum Daily Load (TMDL) for PCBs and mercury for the Bay Area. The TMDL established an initial 20-year timeframe for reducing PCBs in fish tissue to safe levels for human consumption.

Jurisdictions regulated under the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) NPDES Municipal Regional Permit (MRP), also referred to as permittees, have been implementing programs, plans and infrastructure to meet these TMDL requirements. However, recent analysis of the acreage and cost of implementing the amount of GSI/LID required to meet the TMDL, particularly for PCBs, is far beyond the capabilities of most jurisdictions. Therefore, the cities of San Pablo, Richmond and Walnut Creek partnered to develop and pilot a regional water quality crediting/trading/banking system, the development of which is funded by an EPA San Francisco Bay Water Quality Improvement Fund Grant, with the overall goals of providing greater flexibility, reducing compliance costs and meeting TMDL requirements.

The proposed system will comply with Provision C.3.e, *Alternative Compliance or In-Lieu Compliance*, within the current MRP (Order No. R2-2015-0049), and will develop an effective method for permittees to exchange wasteload allocation “credits” across jurisdictional boundaries. There are various types of crediting/trading/banking systems, all of which will be examined as part of this Project to determine the most appropriate system to pilot. The developed system (“System”) will be consistent with the 2019 U.S. EPA Trading Policy¹ and will consider the guiding principles established by the National Network on Water Quality Trading²:

- Accomplish regulatory and environmental goals;
- Provide sufficient accountability, transparency, accessibility and public participation to ensure that promised water quality improvements are delivered;
- Produce no localized water quality problems;
- Be consistent with the Clean Water Act regulatory framework; and
- Include appropriate compliance and enforcement provisions to ensure long-term success.

It is currently unknown which type of system will be developed; however, the proposed Project will answer the following, non-exhaustive, list of key questions:

- How will a water quality crediting/trading/banking system in the Bay Area operate?
 - The Project will explore different types of systems that have been developed in other areas, including centralized systems (i.e. a central banking entity to sell and buy credits, also known as an Open Market system) and decentralized systems (i.e. individual agreements tracked at a regional level, also known as a Case-by-Case system). The different systems will be examined in detail and presented to various committees and stakeholders. The system determined as the best fit will be used as the pilot System.

¹ EPA’s Updated Water Quality Trading Policy to Promote Market-Based Mechanisms for Improving Water Quality. <https://www.epa.gov/sites/production/files/2019-02/documents/trading-policy-memo-2019.pdf>.

² Willamette Partnership, World Resources Institute, and the National Network on Water Quality Trading, 2015. Building a Water Quality Trading Program: Options and Considerations. <http://willamettepartnership.org/wp-content/uploads/2015/06/BuildingaWQTProgram-NNWQT.pdf>.

- The Project will explore the efficacy and risk levels associated with water quality crediting/trading/banking systems (e.g. Open Market systems, Case-by-Case systems, pay-for-performance systems, etc.).
- What is the appropriate water quality credit in the Bay Area?
 - The Project will work with jurisdictions, regional organizations and regulatory agencies to define what will constitute a credit in the Bay Area (e.g. acres treated, pollutants reduced, sediment reduced). Once the definition of a credit is determined, and there may be multiple different credits, estimated costs/benefits and compliance procedures may be developed.
- How do projects fund and ensure ongoing operations and maintenance?
 - The Project will develop a system for determining ongoing operations and maintenance requirements of projects and how they will be funded. The Project will also determine the responsible entity for verifying and inspecting stormwater treatment facilities.
- How does the region track and approve projects?
 - The Project will develop all templates, procedures and any other elements needed for regional tracking and approval, as well as ongoing operations and maintenance. The Project will work with the San Francisco Estuary Institute (SFEI) to develop an online tracking tool that may be used for the pilot system.
 - The Project will work with jurisdictions, regional organizations and regulatory agencies to determine the responsible entity for ongoing project tracking and overall crediting/trading/banking system management.
- How does the region ensure the program is legally defensible? What is the appropriate legal agreement for participating entities that allows for a regional alternative compliance water quality crediting/trading/banking system, while minimizing the risk imposed on participating entities?
 - The Project will work with a legal team and legal representatives from jurisdictions to ensure that the program developed is legally defensible. The Project will also work with regulatory agencies to ensure that all required regulatory components are established for a fully functioning crediting/trading/banking system.

Definitions:

The following terms are defined as such:

Consultant Team: The selected consultant(s) as part of this RFP.

Project Team: This includes the Consultant Team and the Steering Committee.

Steering Committee: A committee comprised of representatives from three (3) to five (5) jurisdictions that commit significant time and resources to guide the development of the System.

System: This refers to the ultimate alternative compliance water quality system that will be created as part of this Project, which could be any form of a crediting, trading and/or banking system. System may also be referred to as the “alternative compliance System.”

3. Consultant Services

The following outlines the consultant services that are envisioned as part of the Project. However, suggested changes to the scope and/or timeline outlined below may be included as part of the proposal submittal. Proposed changes shall be clearly identified in the submittal with an explanation for each change. Inclusion of any suggested changes to the scope and/or timeline are at the sole discretion of the City of San Pablo.

The selected Consultant Team shall provide all services to develop the alternative compliance System for the *Regional Compliance for a Sustainable Bay Project*. Specifically, the selected Consultant Team will be required to complete the following:

A. Project Kick-Off Meeting:

Within two (2) weeks of being selected, the Consultant Team will schedule a kick-off meeting with the Steering Committee to discuss Project timelines and goals.

B. Committee Meetings:

The Consultant Team will be responsible for coordinating and facilitating all committee meetings, communicating with committee members, drafting meeting agendas and handouts, creating presentations, producing meeting summaries and developing sign-in sheets to track participation. All meeting agendas and handouts will be provided to the Steering Committee for review at least five (5) business days prior to each committee meeting. All meeting summaries and sign-in sheets will be provided to the Steering Committee within seven (7) business days of each committee meeting.

The Project will develop three committees:

- i. **Steering Committee-** See definition above. The Steering Committee will be formed prior to the Project Kick-Off Meeting.
 1. It is expected that, on average, monthly Steering Committee meetings will be required. It is likely that the Steering Committee will meet more often during the start of the Project and will reduce meeting frequency as the Project progresses.
- ii. **Advisory Committee-** This will be a large committee open to various stakeholders (jurisdictions, regulatory agencies, regional organizations, etc.) that have an interest in being involved in future alternative compliance projects and would like to provide input.
 1. It is expected that, on average, quarterly Advisory Committee meetings will be required. The Project Team will be expected to update the Advisory Committee on Project progress and solicit input regarding aspects of the System.
- iii. **Technical Advisory Committees (TACs)-** The TACs will consist of technical and/or legal experts to advise on specific issues and questions that arise as

part of the Project. The Steering Committee will guide the formation of the TACs, with assistance from the Consultant Team.

1. At a minimum, a legal/regulatory TAC and a GIS/tracking TAC will be needed. All TACs will meet on an “as needed” basis.

C. Literature and Document Review:

The Consultant Team will research existing crediting/trading/banking systems across the U.S. and review relevant documents to understand key system parameters and constraints.

- i. **Deliverable:** The Consultant Team will develop a memo for the Steering Committee outlining elements (e.g. who, where, what and how) of successful crediting/trading/banking systems and identifying three (3) potential alternative compliance systems that the Consultant Team believes are the most relevant and likely to succeed in the Bay Area. Preferably, the proposed systems will have examples where a similar system, or modified system, has been successfully implemented in the U.S.

D. Bay Area Workshop Series:

The Project Team will host two (2) to three (3) stakeholder workshops to review example systems, and discuss and refine the developed System.

- i. Workshop 1- The first workshop will introduce the Project, outline goals, summarize capabilities and limitations of crediting/trading/banking systems and identify/discuss the major items (e.g. regulatory, jurisdictional, financial hurdles) that jurisdictions deem necessary to be resolved as part of the Project. This workshop will also be used to identify the entities that are interested in participating in the Advisory Committee.
- ii. Workshop 2- The second workshop will occur after the Steering Committee provides direction to the Consultant Team regarding the overall type of alternative compliance system that the Project will develop. The second workshop will provide an overarching framework for how the System will work. The Project Team will take comments from workshop participants and address identified issues.
- iii. OPTIONAL Workshop 3- The third workshop may occur toward the end of the Project, but before the Final Document Review, to address any outstanding issues and, potentially, facilitate political buy-in from jurisdictions across the System’s geographical boundaries. *The potential of a third workshop will be based on need and budget.*
- iv. **Deliverables:** The Consultant Team will develop all materials (e.g. agendas, handouts, presentations, sign-in sheets, etc.) for each workshop. All workshop agendas, handouts and presentations will be provided to the Steering Committee for review at least ten (10) business days prior to each workshop. All meeting summaries and sign-in sheets will be provided to the Steering Committee within ten (10) business days of each workshop. The Consultant Team will be responsible for coordinating the workshops, providing workshop notifications and assisting with recruiting workshop

participants. The Steering Committee will be responsible for providing a venue and will lead participant recruitment.

E. System Development:

The Project Team will develop the System using the Literature and Document Review Memo, in addition to the comments, questions and concerns identified in committee meetings and the workshop series. System Development will be an iterative process, obtaining feedback from the Advisory Committee and the TACs when necessary.

As part of this Project, SFEI will be responsible for the development of a GIS-based online tracking tool. This tool is intended to track and monitor projects and facilitate the submission of documents, when feasible. The development of the online tracking tool is outside of this scope of work; however, the Consultant Team will be responsible for coordinating with SFEI—with oversight from the Steering Committee—and providing specific requirements and parameters for the SFEI tool. The Consultant Team will be expected to provide regular updates to the Steering Committee regarding the status of the SFEI tool. The Project Team and Advisory Committee will review and comment on the ease of the SFEI tool as it is developed.

- i. **Deliverables:** The Consultant Team will develop any templates or documents deemed necessary for the Project. Documents will be presented to the Steering and Advisory Committees for review and comment. All documents will be saved on a shared document management and storage system. All documents will be provided in PDF and editable Microsoft Office-based file formats, which may include Word, Excel, PowerPoint, Access and Publisher. Other file formats may be used, with approval from the Steering Committee. The types of templates and documents to be developed may include, but are not limited to:

1. Implementation Guidance Documents- This may include a summary report, instructions/procedures for System implementation, legal/permit structure of the System, any supporting templates or materials and instructions for the SFEI online tracking tool to help any entity participate in and/or implement the System. This may also include supporting documents regarding risk and uncertainty management and permitting language, to demonstrate how the System may be supported by future regulations.
2. Programmatic Documents- This may include spreadsheets or databases for project tracking, credit accounting, capital costs, maintenance costs, pollutant calculations, invoice tracking, annual operations and maintenance documentation, approval requirements, maps, etc.
3. Template Documents- This may include contract documents, Memoranda of Understanding (MOU), interagency agreements, staff reports, resolutions, invoice documents, operations and maintenance inspection certification, maps, etc.

F. Final Legal and Regulatory Review:

It is anticipated that legal and regulatory reviews will occur through the TACs throughout System Development. However, additional time has been provided for a final, extensive legal and regulatory review to ensure that the System can be implemented with ease.

- i. **Deliverables:** Upon approval from the Steering Committee, the Consultant Team will provide all template documents to the required regulatory agencies (e.g. SFBRWQCB and/or EPA) and designated legal experts for final legal and regulatory review and comment.

G. Final Document Review:

The Steering Committee will provide the final review and approval for all deliverables at the end of the Project term. The Consultant Team will implement two (2) rounds of comments with the Steering Committee as part of the Final Document Review.

- i. **Deliverables:** Final documents, with two (2) rounds of comments implemented. All documents will be provided in PDF and editable Microsoft Office-based file formats, which may include Word, Excel, PowerPoint, Access and Publisher. Other file formats may be used, with approval from the Steering Committee.

H. Pilot Project Implementation:

The Project Team will pilot one (1) to two (2) projects with the proposed System. The pilot project(s) will be identified and begin design in concurrence with System development; however, design of the pilot project is outside the scope of this RFP. The pilot project(s) will serve as an opportunity to monitor System operation and provide feedback regarding any issues with the System and/or any supporting templates and documents.

- i. **Deliverables:** Updated materials, in accordance with any changes deemed necessary by the Steering Committee.

I. Grant Reporting:

This Project is subject to grant requirements and reporting. The Consultant Team will be expected to follow all grant requirements and assist with grant reporting, see **Attachment 2** (*EPA Grant Application*) and **Attachment 3** (*EPA Notice of Award*).

- i. **Deliverables:** As part of grant reporting, the Consultant Team will be expected to assist in the completion of the following documents:
 - 1. Quarterly Progress Reports- The Consultant Team will provide updates in accordance with the *EPA Notice of Award Programmatic Conditions a.) Reporting* (**Attachment 3**). Updates will be provided using the City's Quarterly Report format (**Attachment 4**).
 - 2. Final Project Report- The Consultant Team will complete the Final Project Report in accordance with *EPA Notice of Award Programmatic Conditions a.) Reporting* (**Attachment 3**). This report will describe Project development and outcomes, and will include all approved deliverables and meeting summaries.

3. In-Kind Match Tracking Sheets- The Consultant Team will track and manage financial/timesheet submittals for all jurisdictions supporting the Project through committee participation.
4. Grant Source Recognition- All deliverables (e.g. documents, templates, presentations, etc.) shall comply with the *EPA Notice of Award Programmatic Conditions c.) Grant Source Recognition (Attachment 3)*.

4. Pre-Proposal Meeting

A Pre-Proposal Meeting is scheduled for Thursday, December 12, 2019, at 9:30 a.m. PST. This Pre-Proposal Meeting will occur via Webex teleconference. Proposers are encouraged to attend for review of the Project and Proposal requirements.

Webex meeting information will be distributed to all firms registered on the Project Bidder's List (with a valid email) in PlanetBids. **The deadline to be registered on the Project Bidder's List in order to receive Webex meeting information is Monday, December 9, 2019 at 5:00 p.m. PST.** Note that firms are still eligible to submit a proposal without attending the Pre-Proposal meeting.

A test Webex teleconference meeting is scheduled for Tuesday, December 10, 2019, at 9:30 a.m. PST to provide Proposers an opportunity to test the Webex connection.

5. Estimated Cost

The City estimates that the Project will cost **four hundred, ninety-six thousand dollars (\$496,000)** to develop. The Project must be developed within the City's Project budget.

C. PROPOSAL REQUIREMENTS

Each Proposal must be submitted in compliance with the requirements of this RFP. The City may, acting in its sole discretion, elect to reject any Proposal that it determines to be nonresponsive. It reserves the right, but not the obligation, to waive any immaterial irregularities. Clarity and brevity are preferable to volume; submittals shall be limited to 30 pages excluding proposal cover, cover letter, table of contents, dividers and staff resumes.

Should the firm(s) submitting the proposal have recommended changes to the Project scope and/or timeline, such changes shall be clearly identified as part of the Proposal and will count toward the page limit. The City is under no obligation to accept these changes. Proposed changes to Project scope and timeline will be negotiated and finalized as part of the contracting process with the selected Consultant.

Each Proposal must include the following, organized as Sections 1 through 12:

1. Letter of Interest / Cover Letter

A letter of interest/cover letter must be provided transmitting the firm(s) submittal for consideration. The letter of interest/cover letter must be signed by the person authorized to negotiate a contract for proposed services with the City on behalf of the team.

2. Organization Chart / Personnel

Since the Project may involve several professional disciplines, submittals must provide an organization or personnel chart to delineate communication, coordination and hierarchical structure of the Project Team. Specific staff representing the professional disciplines included in the Proposal shall be identified in the chart.

3. Firm(s) Statement of Qualifications

Provide the qualifications and experience of the firm(s) proposed for the Project in the submittal. This should include information describing the firm's experience with:

- a. Developing alternative compliance, water quality crediting/trading/banking systems or in-lieu fees.
- b. Water quality regulations, including experience with the Clean Water Act and requirements in regards to NPDES, the MRP and TMDLs, as issued by the SFBRWQCB.
- c. Adhering to projects of similar type, size, rapid timeline and funding requirements.
- d. Successfully meeting state and federal project and financial reporting requirements, including expense tracking when there are multiple funding sources.
- e. Working collaboratively on an interdisciplinary team of consultants.

4. Staff Statement of Qualifications or Resumes

Provide the qualifications or resumes of key personnel—maximum of one (1) page, single-sided, per staff member—proposed for the Project in the submittal. In this section, identify similar or related projects that key members of the Project Team have worked on. *Note: Key team members identified in the submittal shall not change in the executed contract without prior notification and approval by the City.*

5. Project Management and Staff Availability

Consultant shall have one (1) individual who will function as the main coordinator and point of contact for all other consultants and sub-consultants. This person will monitor budget, timelines, review and evaluate deliverables, oversee quality assurance/quality control (QA/QC), assist in meeting facilitation and oversee Project updates under the direction of City staff. Any staff substitution after the Proposal is received by the City must be requested in writing for consideration by the City.

6. Project Approach

Describe the Consultant's proposed approach to this Project and, if relevant, the Consultant's typical approach to similar projects. The approach should identify how the Consultant will ensure they will meet the required deliverable schedule and budget, meet all grant requirements, and adapt to potential changes in scope (while still meeting the required delivery schedule).

7. Schedule of Work

The schedule of work must be included in the submittal in order to demonstrate the Consultant's ability to meet all Project deadlines. The schedule of work must include milestones for deliverables of each required aspect, see **Section 3 "Consultant Services."** All tasks, including deliverables from each sub-consultant, must meet set individual deadlines and overall Project schedule. Progress meetings with the Steering Committee shall be scheduled as requested until the Project is completed.

The City has provided a *sample* timeline (**Attachment 5**). Proposing consultants are encouraged to edit the timeframes for required consultant services and add/subtract any proposed Project elements, in accordance with any suggested changes made to the broader project scope. The final schedule of work is subject to negotiation with the City and will be finalized as part of the contracting process with the selected Consultant.

It will be the responsibility of the Consultant to prepare the documentation and submit the required documents to the City for forwarding to all grant agencies, for approval of grant funds within the required timeframe, see **Section 3 "Consultant Services," Attachment 2 (EPA Grant Application)** and **Attachment 3 (EPA Notice of Award)**.

8. Cost Proposal

The cost proposal shall include a cost estimate for each task outlined in the scope of services for this Project. Costs for each line item task in the Schedule of Work shall be summarized in **Section 7 "Schedule of Work,"** with a more detailed breakdown in **Section 8 "Cost Proposal."** Prices quoted shall include key team member(s) proposed for each task and the number of management, technical, drafting and support personnel hours; cost per hour for each team member and total cost envisioned for each task. Identify any other costs to be billed to the Project, including Project expenses and sub-consultant fees. Include any proposed mark-up for sub-consultant fees. Include a copy of the proposed rate schedule(s) to be used throughout the duration of the Project and any adjustments that are predicted to occur during the execution of the Project.

9. Method of Payment

The method of payment for this contract will be a Lump Sum agreement with the ability of progress payments. The Consultant will perform the services stated in the contract for an agreed amount as compensation, including a net fee or profit.

10. References

Provide a short summary—one (1)-page maximum per project—of at least three (3) projects, in progress or completed, with the following information for each:

- a. Reference name, with current contact information
- b. Type of project/development
- c. Client type (clarifying role of private sector client, if any)
- d. Size and scale of geographic area
- e. Current status (e.g., in progress, completed)
- f. Key lesson(s) learned, as relevant to the Project

11. Consultant Contract Statement

Consultant will include a statement that the firm(s) accepts the terms of the City's Consultant Agreement sample (**Attachment 1**) and/or the submittal will include a list of any proposed modifications to the Agreement by the Consultant. Proposed changes to the Consultant Contract Statement will be considered; any proposed changes will be negotiated and finalized as part of the contracting process with the selected Consultant.

12. Special Requirements

This Project has been funded by a federal EPA Water Quality Improvement Fund grant. Proposals shall indicate they have read the *EPA Notice of Award* (**Attachment 3**), the submittal proposal has met, or will meet, the relevant Administrative Conditions and that all Project deliverables will meet all relevant Administrative and Programmatic Conditions.

- a. **Small and Minority Businesses.** This Project is funded in whole or in part by the federal government. Disadvantaged Business Enterprise (DBE) efforts must comply with all applicable federal requirements as further specified in the Contract Documents, and when procuring Subcontractors, the Consultant Team must take all necessary affirmative steps pursuant to 2 CFR § 200.321(b), subject to the limitations of law, to ensure that minority businesses, women's business enterprises and labor surplus area firms are used when possible. Affirmative steps must include:
- i. **Solicitation Lists.** Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
 - ii. **Soliciting Potential Sources.** Assuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources.
 - iii. **Maximizing Participation.** Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises.
 - iv. **Establishing Delivery Schedules.** Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
 - v. **Organizational Assistance.** Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

D. PROPOSAL CONDITIONS

1. Questions.

Questions regarding this RFP or the Project may be submitted *in writing only* and directed to Amanda Booth, email: AmandaB@sanpabloca.gov. Written responses will be provided in addenda to this RFP distributed to all firms registered on PlanetBids to receive updates

from the City. Written questions must be submitted no later than Wednesday, December 18, 2019 at 5:00 p.m. PST.

2. General Terms and Conditions

- a. All proposals, whether selected or rejected, shall become the property of the City.
- b. The cost of RFP preparation shall be that of the consulting firm and shall not be paid by the City.
- c. Proposals shall be signed by an authorized employee in order to receive consideration.
- d. City will not be responsible for proposals delivered to a person or location other than that specified herein.
- e. The successful proposer will be asked to enter into an agreement with the City reflecting the terms and conditions of the proposal based on the City's Professional Services Agreement (Agreement) requirements. A copy of the Agreement and Insurance requirements is included as **Attachment 1** to this RFP. Proposals should include a list of any proposed modifications to the Agreement by the Consultant. Award of an agreement is subject to approval by the City Council of the City of San Pablo.
- f. Neither the City of San Pablo, it's City Council, officers, employees, agents, representatives, nor any of its consultants will be liable for any claim or damages resulting from the RFP process.
- g. By submitting a proposal in response to this RFP, the proposer accepts the evaluation process and acknowledges and accepts that determination will require subjective judgments by the City. All information, documentation and other materials submitted in response to this solicitation are considered non-confidential and/or non-proprietary and are subject to public disclosure after the solicitation is completed.

3. Agreement

The anticipated duration of the agreement is approximately 30 months, with the term tentatively to begin February 2020 and end June 2022.

A sample agreement is attached (**Attachment 1**) that includes terms regarding conflict of interest, insurance, indemnification and assignment. The Consultant selected to perform the work will be required to comply with these terms. Any proposed changes to the agreement must be addressed in **Section 11 "Consultant Contract Statement"** and are subject to City approval. If no changes to the sample agreement are identified in the Project proposal, the City will consider submittal of the proposal to indicate acceptance of the language in the sample agreement and future changes will not be considered.

4. Disadvantaged Business Enterprise (DBE) Participation

This Project has a 1% DBE participation Goal. All proposers are encouraged to seek participation of a DBE-rated firm(s) to fulfill this goal. In order for a proposer to be considered responsible and responsive, the proposer must document a good faith effort

to meet the goal established for this Project. If the goal is not met, the proposer must document adequate good faith efforts.

E. PROPOSAL PROCEDURE

1. Submission of Proposals

Each Proposer must submit a ***sealed envelope*** or package containing five (5) print copies and one (1) electronic copy (PDF or comparable) of its Proposal, each copy clearly identified as “Proposal for Regional Compliance for a Sustainable Bay.” The electronic copy may be included on a thumb drive in the sealed envelope or package or emailed to: AmandaB@sanpabloca.gov. The City takes no responsibility for electronic submittals not received by the Proposal Deadline. The sealed proposal package must be delivered to:

**City of San Pablo
City Clerk’s Office
13831 San Pablo Ave, Bldg 1
San Pablo, CA 94806**

All Proposals, in both print and electronic format, must be received by the City Clerk’s office by January 9, 2020, no later than 5:00p.m. PST (“Proposal Deadline”).

Proposals may not be modified after the Proposal Deadline.

2. Consultant Selection Process

The first step in the evaluation process will be to determine that each submittal contains all forms and other information required by this RFP. Any submittals missing the required information may be considered nonresponsive and rejected without evaluation. Late submittals, submittals to the wrong location and submittals with inadequate copies are considered nonresponsive and shall be rejected. Submittal of additional information after the due date shall not be allowed.

All proposals will be evaluated by a City of San Pablo Selection Committee. The Selection Committee, made up of key City staff and other parties that may have expertise or experience in the services described herein, will review all submittals deemed complete according to the evaluation criteria and weighting factors below. The Selection Committee will make independent random checks of one or more of the Consultant’s references. This reference check applies to major sub-consultants as well.

The Selection Committee will establish a shortlist of consultants that are considered to be best qualified to perform the contract work. The selection process will include oral interviews. The Consultant will be notified of the time and place of oral interviews and if any additional information is required to be submitted.

Upon acceptance of the cost proposal and successful contract negotiations, staff will recommend a contract be awarded.

3. Evaluation Criteria

Proposals will be evaluated according to the criteria below. The scores for all criteria will be added for each proposal. The proposal with the highest score will be deemed as the best proposal. The total maximum score for any proposal is 100 points.

	Criteria	Maximum Points
A	Completeness of Response	Pass/Fail
B	Understanding of the Work/Project	25
C	Experience with Similar Work	20
D	Quality and Availability of Staff	15
E	Innovation and Advanced Techniques	10
F	Knowledge of State and Federal Procedures/Regulations	10
G	Financial Responsibility	10
H	Project Delivery	10
	Total	100

a. Completeness of Response (Pass/Fail)

Responses to this RFP must be complete. Responses that do not include the proposal content requirements identified within this RFP and subsequent addenda and do not address each of the items listed below will be considered incomplete. Such proposals will be rated a “Fail” in the Evaluation Criteria and will receive no further consideration. Responses that are rated a “Fail” and are not considered may be picked up at the delivery location within 14 calendar days of contract award and/or the completion of the competitive process.

b. Understanding of the Work/Project (25 points)

Demonstrated understanding of the Project, including Project needs, identification of potential issues and overall approach.

c. Experience with Similar Work (20 points)

Experience of the firm(s) with similar projects, including local knowledge, expedited timelines, working with multiple grants and prior experience with developing water quality alternative compliance systems.

d. Quality and Availability of Staff (15 points)

Quality and availability/current workload of proposed staff.

e. Innovation and Advanced Techniques (10 points)

Capability of developing, and identification of, innovative approaches and solutions to key project issues.

f. Knowledge of State and Federal Procedures/Regulations (10 points)

Experience and familiarity with state and federal procedures or regulations.

g. Financial Responsibility (10 points)

Ability of the firm(s) to meet Project budget, financial and schedule requirements.

h. Project Delivery (10 points)

Demonstrated technical ability of staff and, if relevant, experience of consultant teams working together.

4. Tentative Schedule

Below is a tentative schedule for the selection and procurement process. Dates are subject to change by City staff and/or unforeseen circumstances.

Item	Date
RFP Release Date	<i>November 21, 2019</i>
Deadline to register on Project Bidder's List to receive Pre-Proposal Meeting Information	<i>December 9, 2019 at 5:00pm PST</i>
Pre-Proposal <i>Test</i> Meeting Date	<i>December 10, 2019 at 9:30am PST</i>
Pre-Proposal Meeting Date	<i>December 12, 2019 at 9:30am PST</i>
Last day to submit any questions	<i>December 18, 2019 at 5:00pm PST</i>
RFP Proposal submittal Date	<i>January 9, 2020 by 5:00pm PST</i>
Panel Proposal Review	<i>January 15, 2020</i>
Interview period	<i>January 21-23, 2020</i>
Selection and negotiation period	<i>January 27, 2020</i>
Contract to be awarded at City Council	<i>February 18, 2020</i>

F. ATTACHMENTS

Attachment 1 – Sample Consultant Agreement

Attachment 2 – EPA Grant Application

Attachment 3 – EPA Notice of Award

Attachment 4 – Template Quarterly Report

Attachment 5 – Sample Project Timeline

Attachment 1 - Sample Consultant Agreement

CITY OF SAN PABLO
AGREEMENT FOR CONSULTING SERVICES
Project No. [REDACTED] / Agreement No. [REDACTED]

THIS AGREEMENT ("**Agreement**"), dated and effective this [REDACTED] day of [REDACTED], 20[REDACTED] ("**Effective Date**"), is by and between the City of San Pablo, a municipal corporation organized and existing under the laws of the State of California, ("**City**"), and [REDACTED], a [REDACTED], ("**Consultant**") (individually, a "**Party**," and collectively, the "**Parties**").

RECITALS

WHEREAS, the City desires to engage a consultant to provide [REDACTED] services to the City ("**Services**") as further set forth in this Agreement;

WHEREAS, the City desires to engage a consultant who will act at all times in the City's best interest will respect the trust and confidence placed in that consultant by the City; and

WHEREAS, Consultant has represented to City that Consultant has the special training, skill, competence and expertise necessary to provide the Services needed by the City; desires to enter into this Agreement with the City as an independent contractor; and is willing to provide the Services on the following terms and conditions.

NOW, THEREFORE, Consultant and the City agree as follows:

TERMS AND CONDITIONS

(1) Scope of Services.

A. **Scope of Services.** Consultant agrees to provide the Services to the City as specified in, collectively, the scope of services set forth in the City's Request for Proposals, dated [REDACTED] and any addenda thereto ("**RFP**"), attached as **Exhibit A** and incorporated herein, and the scope of services set forth in Consultant's proposal dated [REDACTED] ("**Proposal**"), attached as **Exhibit B** and incorporated herein. In the event of any conflict or inconsistency between any of the terms of the RFP, the Proposal, and this Agreement, the terms most favorable to the City will prevail. Any services not encompassed in this Section (1) are additional services ("**Additional Services**") subject to prior written authorization by the City, as further specified below in Section (3), "Additional Services."

B. **Quality of Performance.** Consultant will provide the Services and any authorized Additional Services in accordance with the standards of its profession; in accordance with the terms, conditions, and objectives of this Agreement; and in a manner satisfactory to the City Manager or his or her authorized delegee ("**City Manager**"). Consultant represents that it possesses the necessary skills, background, and licenses to perform the Services or Additional Services. Consultant is solely responsible for the quality and suitability of the Services it provides pursuant to this Agreement. If, during the course of this Agreement, the City Manager notifies Consultant that the Services are not satisfactory, in whole or in part, Consultant will promptly take the corrective action required by the City Manager, at no extra cost to the City. Failure to promptly take such corrective action constitutes a material breach of this Agreement and cause for termination in the City's discretion. This standard of care will not be construed to impose a mandatory duty on the City within the meaning of Government Code section 815.6. The City's

acceptance of Services performed under this Agreement will not operate to waive or release Consultant's obligation under this paragraph.

C. **Time is of the Essence.** In the performance of this Agreement, time is of the essence. Consultant must be available to begin providing the Services upon the Effective Date of this Agreement, and must complete the Services within the time specified in Section (4), "Effective Date and Term."

D. **Primary Service Provider.** The City has approved of _____ as Consultant's primary provider of the Services under this Agreement, and no other person will be accepted as the primary provider of the Services without the City's prior written consent.

(2) **Compensation.** As full compensation for the satisfactory and timely performance of the Services as specified in Section (1), "Scope of Services," and the attached exhibits, City hereby agrees to pay Consultant a sum not to exceed _____ Dollars <write out amount> (\$) as follows:

<Indicate any special payment arrangement, if applicable, e.g., hourly rates.>

Consultant will be paid all undisputed amounts within thirty (30) days of City's receipt of detailed invoices for Services provided to the City Manager's satisfaction during the preceding calendar month. Invoices must include all of the information contained in Section (6), "Billings," below. Each invoice must be signed by an authorized representative of Consultant, verifying that the invoiced Services have been performed. Consultant will not be entitled to compensation for Additional Services, as defined below in Section (3), unless authorized by City in writing in advance, and memorialized in an amendment to this Agreement executed by the authorized representatives of each Party. This Section (2) supersedes any conflicting or inconsistent provisions in the Proposal.

(3) **Additional Services.** In addition to the Services included in Section (1), "Scope of Services," the Parties may from time to time agree that Consultant will provide Additional Services for additional compensation, as authorized by the City Manager. The nature and scope of the Additional Services, including the time for performance and terms for mutually agreeable additional compensation must be memorialized in a writing, executed by both Parties, as further specified in Section (25), "Amendments," before Consultant may begin providing the Additional Services. Consultant will not be entitled to compensation for any Additional Services performed without a written amendment to include the Additional Services in this Agreement. If Consultant believes that services that it is directed to perform by City are not included in Section (1), "Scope of Services," Consultant will promptly notify the City in writing of the basis for this belief. If the City agrees that the subject services are not included in Section (1), "Scope of Services," the Parties will promptly execute a writing to authorize the services as Additional Services for mutually agreed-upon additional compensation. Except as otherwise specified in the written authorization, all Additional Services are subject to the same terms and conditions as all Services under this Agreement, including, billing, record-keeping, reporting, insurance, indemnity, and compliance with all applicable laws and standards.

(4) **Effective Date and Term.** The term of this Agreement ("Term") begins on the Effective Date set forth above, and expires on _____. If the Term expires later than the end of the City's fiscal year, the continuation of the Term into the next fiscal year will be contingent upon the City's lawful encumbrance or appropriation of new funds for the Agreement.

(5) **Assignment and Subcontracting.** A substantial inducement to City for entering into this Agreement was, and is, the reputation and competence of Consultant. The assignment or subcontracting of this Agreement by Consultant, or any interest therein, is prohibited without the prior written approval of the City Manager. The City has authorized Consultant to use the following Subconsultants/Subcontractors as specified:

<u>Subconsultant/Subcontractor Name</u>	<u>Subconsultant/Subcontractor Services</u>

(6) **Independent Contractor Status.** It is expressly understood and agreed by the Parties that Consultant, while providing Services pursuant to this Agreement, is an independent contractor and not an employee of the City. Consultant is solely responsible for the means and methods by which it provides the Services. Consultant is solely responsible for all matters relating to the payment of its employees, including compliance with social security, withholding tax and all other laws and regulations governing such matters. Consultant is solely responsible for its own acts and those of its agents and employees during the Term of this Agreement. Consultant will not represent, at any time or in any manner, that Consultant is an employee of the City. Consultant will exercise its judgment in recommending to City the methods by which to accomplish City's objectives and needs. Consultant acknowledges that the City will provide no training. Consultant will provide whatever tools and materials that are necessary to complete a client engagement. Consultant is free to accept, and has accepted in the past, other client engagements. Consultant is responsible for purchasing, bringing, providing, and controlling any and all equipment, tools, instruments, etc. needed for completion of the Services set forth herein, as well as for maintenance and use of such equipment. It is understood that Consultant is hired on a temporary basis only, and that if the City and/or Consultant desires to continue Consultant's services after expiration of the Term or termination of this Agreement, Consultant must enter into a new agreement.

(7) **Billings.** Consultant's invoices must include the following information: (a) a brief description of Services performed, including any Additional Services; (b) the date the Services were performed; (c) the number of hours spent and by whom; (d) the current Agreement not-to-exceed amount; (e) the amount previously billed; (f) the total paid to date; (g) the outstanding balance due, if any; (h) the current invoice amount; (i) total amount billed against the Agreement to date; (j) the remaining balance of the not-to-exceed amount; and (k) the Consultant's signature. Except as specifically authorized by City, Consultant will not bill City for duplicate Services performed by more than one person. Consultant may not submit any billing for an amount in excess of the maximum amount of compensation authorized in Sections (2) and (3), above. Consultant is solely responsible for its office and overhead costs, including furniture and equipment rental, supplies, salaries of employees, telephone calls, postage, advertising, and all other expenses incurred by Consultant in the performance of this Agreement.

(8) **Advice and Status Reporting.** Consultant will provide the City with timely reports, orally or in writing, of all significant developments arising during performance of its Services, and provide the City with information as is necessary to enable City to monitor the performance of this Agreement, including statements and data demonstrating the effectiveness of the Services provided in achieving the City's express goals and objectives. The City may withhold payments otherwise due to Consultant pending timely delivery of all such reports and information.

Consultant will promptly notify the City Manager of any matters that could adversely affect Consultant's ability or eligibility to continue to provide Services under this Agreement.

(9) **Retention of Records.** Consultant's complete files, including all records, employee time sheets, and correspondence pertaining to the Services will be available for review by the City upon request, and copies of pertinent reports and correspondence will be furnished for the City's files upon request by the City. Consultant will maintain adequate documentation to substantiate all charges for hours and materials charged to City under this Agreement. Consultant will maintain the records and any other records related to the Services or this Agreement and will allow City access to such records for a period of four years after the expiration of the Term or termination of the Agreement. At City's request, or upon expiration or termination of this Agreement, Consultant will return to City all plans, maps, cost estimates, project financial records, reports, and related documents. All research information, plans, diagrams, financial records, reports, cost estimates or other documents prepared or obtained under the terms of this Agreement will be delivered to and become the property of the City and all data prepared or obtained under this Agreement will be made available, upon request, to the City without restrictions or limitations on their use. This Section (8) will survive expiration of the Term or termination of the Agreement.

(10) **Written Reports and Documents.** In accordance with Government Code section 7550, if the total compensation paid to Consultant under this Agreement exceeds \$5,000, any document or written report prepared by Consultant for or under the direction of City will contain the numbers and dollar amounts of all contracts and subcontracts relating to the preparation of such document or written report. The contract and subcontract numbers and dollar amounts shall be contained in a separate section of such document or written report. When multiple documents or reports are the subject or product of this Agreement, the disclosure section may also contain a statement indicating that the total contract amount represents compensation for multiple documents or reports.

(11) **Record and Fiscal Control System.** Consultant will maintain its financial records and fiscal control systems in a commercially reasonable manner. Consultant will maintain personnel and payroll records to adequately identify the source and application of all received funds; withhold income taxes; pay employment taxes (including Social Security), unemployment compensation, worker's compensation and other taxes as may be due. Consultant will maintain an effective system of internal control to assure that funds provided through the City are used solely for authorized purposes.

(12) **Access to Records; Audits.** The City will have access at any time during normal business hours and as often as necessary to any bank account and books, records, documents, accounts, files, reports, and other property and papers of Consultant relating to the Services to be provided under this Agreement for the purpose of making an audit, review, survey, examination, excerpt or transcript.

(13) **Consultant's Testimony.** Unless the Services include serving as an expert witness, Consultant agrees to consult with City and testify at City's request at no additional cost other than normal witness fees if litigation is brought against City in connection with Consultant's Services. This Section (12) will survive expiration of the Term or termination of the Agreement.

(14) **Assignment of Personnel.** Consultant will only assign competent and qualified personnel to perform the Services. If City asks Consultant to remove a person assigned to the Services, Consultant agrees to do so immediately regardless of the reason, or the lack of a reason, for City's request.

(15) **Insurance.** Before it may begin performing Services under this Agreement, Consultant must procure and provide proof of the insurance coverage and endorsements required by this Section in the form of certificates and endorsements acceptable to City. The required insurance must cover the activities of Consultant and its subconsultants or subcontractors relating to or arising from the performance of the Services, and must remain in full force and effect at all times during the Term of the Agreement. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VII" or better. If Consultant fails to provide any of the required coverage in full compliance with the requirements of this Agreement, City may, at its sole discretion and in addition to any other remedies, purchase such coverage at Consultant's expense and deduct the cost from payments due to Consultant, suspend performance of the Services under the Agreement, or terminate Consultant for default. The procurement of the required insurance will not be construed to limit Consultant's liability under this Agreement or to fulfill Consultant's indemnification obligations under this Agreement. If coverage limits carried by Consultant exceed the minimum limits specified below, the higher limits will be deemed to be required by this Agreement.

A. **Policies and Limits.** Consultant must procure and maintain the following insurance policies and limits at all times during the Term of this Agreement:

1. **Commercial General Liability Insurance ("CGL"):** The CGL policy must be issued on an occurrence basis, written on a comprehensive general liability form (CG 00 01), and must include coverage for liability arising from the operations of Consultant or its subconsultants or subcontractors in the performance of the Services, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits of at least \$2,000,000.00 per occurrence. The CGL coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth herein.
2. **Automobile Liability:** The automobile liability policy must provide coverage of at least \$1,000,000.00 combined single-limit per accident for bodily injury, death or property damage.
3. **Workers' Compensation Insurance and Employer's Liability:** The policy must comply with the requirements of the California Workers' Compensation Insurance and Safety Act, providing coverage of at least \$1,000,000.00, or as otherwise required by law.
4. **Professional Liability:** The professional liability insurance policy must insure against the Consultant's errors and omissions in the provision of Services under this Agreement, in an amount not less than \$1,000,000.00 combined single limit. Any deductible or self-insured retention may not exceed \$50,000. The professional liability policy must include prior acts coverage sufficient to cover all Services provided by the Consultant for this Agreement, and the coverage must continue in effect for five years following final payment to Consultant. The following provisions apply if the professional liability policy is written on a claims-made form:

- a. The retroactive date of the policy must be shown and must be on or before the Effective Date of the Agreement.
- b. The insurance must be maintained and evidence of insurance must be provided for a continuous period of at least five years following expiration of the Term or termination of the Agreement, whichever occurs first.
- c. If the coverage is canceled or not renewed and is not replaced with another claims-made policy form with a retroactive date that is on or before the Effective Date of this Agreement, Consultant must provide extended reporting coverage for a minimum of five years following expiration of the Term or termination of the Agreement, whichever occurs first. The City has the right to procure, at Consultant's cost, any extended reporting provisions of the policy if the Consultant cancels or fails to renew the coverage.
- d. A copy of the claim reporting requirements must be submitted to the City before Consultant may begin performing Services under this Agreement.

B. **Required Endorsements.** The insurance provided by Consultant must include the following endorsements as specified below. The endorsements must be executed by a person authorized to bind the issuing insurer. The endorsements are to be provided on forms provided, specified, or approved by the City. As an alternative to the City's forms, the Consultant's insurer(s) may provide complete copies of all required insurance policies, including endorsements.

1. **Additional Insured Endorsements:** The General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

- a. The City, its officers, officials, employees, and volunteers ("**Additional Insureds**") will be covered as additional insureds with respect to all covered liability. This must be provided in the form of an additional insured endorsement to the Consultant's insurance policy, using form CG 20 10 11 85, forms CG 20 10 10 01 and GC 20 37 10 01, or equivalent approved by the City. For design professionals form CG 20 07 may be used. Alternatively, the additional insured endorsement may be provided as a separate owner's policy that complies with all of the requirements set forth in this Section 15.
- b. The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the policies will apply as though separate policies have been issued to each of the Additional Insureds.
- c. The insurance provided by the Consultant is primary and no insurance or self-insurance held or owned by any of the Additional Insureds may be called upon to contribute to a loss or defense.
- d. Any failure by Consultant to comply with the reporting requirements for a policy will not affect nor abridge the coverage provided for any Additional Insureds.
- e. The coverage or endorsement will not contain any limitations on the scope of protection available to the Additional Insureds.

2. **Notice:** Each insurance policy required by this clause must provide or be endorsed to state that coverage will not be reduced, canceled, or allowed to expire without at least 30 days written notice to the City, unless due to non-payment of premiums, in which case 10 days written notice is required.
3. **Waiver of Subrogation:** Each required policy must include an endorsement providing that the insurer will waive any right of subrogation it may have against the City. Consultant hereby agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss.

C. **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions for the required insurance policies are subject to prior approval by the City Manager. Before beginning performance of the Services, Consultant must disclose the amounts of the deductibles and self-insured retentions that apply to the required policies. If the City Manager determines that the deductible or self-insured retention for any required policy is unacceptably high, at the option of City, (1) the insurer must reduce or eliminate the deductible or self-insured retention with respect to the Additional Insureds, or (2) the Consultant must provide a bond or financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration, and defense expenses. During the Term of this Agreement, Consultant may not increase any deductibles or self-insured retentions with respect to the Additional Insureds, without the prior written consent of the City Manager. The City Manager may condition such consent upon the Consultant procuring a bond or financial guarantee that is satisfactory in form to the City, guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

D. **Subconsultants or Subcontractors.** Consultant must ensure that each subconsultant or subcontractor is required to maintain the same insurance coverage required for Consultant under this Section (15), with respect to its performance of Services, including the required endorsements. Consultant must confirm that each subconsultant or subcontractor has complied with these insurance requirements before the subconsultant or subcontractor is permitted to begin Services under this Agreement. Upon request by the City, Consultant must provide certificates and endorsements submitted by each subconsultant or subcontractor to prove compliance with this requirement. The insurance requirements for subconsultants or subcontractors do not replace or limit the Consultant insurance obligations.

(16) **Indemnification.** The terms and conditions set forth in subsection 16(A), below, are applicable to this Agreement if the Services to be provided by Consultant are not "design professional" services as used and defined in Civil Code section 2782.8 (architect, landscape architect, engineering, or land surveyor services). The terms and conditions set forth in subsection 16(B), below, are applicable to this Agreement if the Services to be provided by Consultant are "design professional" services as used and defined in Civil Code section 2782.8 (architect, landscape architect, engineering, or land surveyor services).

A. **Indemnification by Non-Design Professionals.** Consultant shall, to the fullest extent permitted by law, indemnify, defend (with counsel acceptable to the City) and hold harmless City, and its employees, officials, volunteers and agents ("**Indemnified Parties**") from and against any and all losses, claims, damages, costs and liability of every nature arising out of or resulting from the performance of this Agreement by Consultant, its officers, employees, agents, volunteers, subcontractors or sub-consultants, excepting only liability arising from the sole negligence, active negligence or willful misconduct of City. Liabilities subject to the duties to defend and indemnify include, without limitation, all claims, losses, damages, penalties, fines,

and judgments; associated investigation and administrative expenses; defense costs, including but not limited to reasonable attorneys' fees; court costs; and costs of alternative dispute resolution.

1. The duty to defend is a separate and distinct obligation from the Consultant's duty to indemnify. The Consultant shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, with counsel approved by the City, the City and its directors, officers, and employees, immediately upon tender to the Consultant of the claim in any form or at any stage of an action or proceeding, whether or not liability is established. An allegation or determination of comparative active negligence or willful misconduct by an Indemnified Party does not relieve the Consultant from its separate and distinct obligation to defend City. The obligation to defend extends through final judgment, including exhaustion of any appeals. The defense obligation includes an obligation to provide independent defense counsel if the Consultant asserts that liability is caused in whole or in part by the negligence or willful misconduct of an Indemnified Party. If it is finally adjudicated that liability was caused by the sole active negligence or sole willful misconduct of an Indemnified Party, Consultant may submit a claim to the City for reimbursement of reasonable attorneys' fees and defense costs.

2. In the event that Consultant or any employee, agent, subconsultant or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("**PERS**") to be eligible for enrollment in PERS as an employee of City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, subconsultants or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

3. The review, acceptance or approval of the Consultant's Services or work product by any Indemnified Party shall not affect, relieve or reduce the Consultant's indemnification or defense obligations. The provisions of this Section are not limited by and do not affect the provisions of this Agreement relating to insurance.

4. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply.

5. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration, and that these provisions survive the termination of this Agreement.

B. Indemnification by Design Professionals. Consistent with California Civil Code section 2782.8 ("**section 2782.8**"), when the Services to be provided under this Agreement are to be performed by a "design professional," as that term is defined under section 2782.8, Consultant shall, to the fullest extent permitted by law, indemnify, defend and hold harmless City, and its employees, officials, volunteers and agents ("**Indemnified Parties**") from and against any and all losses, claims, damages, costs and liability of every nature, including reasonable attorneys' fees and costs, to the extent caused in whole or in part by any negligence, recklessness, or willful misconduct of Consultant, its officers, employees, agents, subconsultants or subcontractors in performance of the Services under this Agreement, but excluding the sole or active negligence or willful misconduct of one or more of the Indemnified Parties. Defense costs

shall not exceed Consultant's proportionate percentage of fault, except as set forth in section 2782.8.

1. In the event that Consultant or any employee, agent, subconsultant or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("**PERS**") to be eligible for enrollment in PERS as an employee of City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, subconsultants or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

2. The review, acceptance or approval of the Consultant's Services or work product by any Indemnified Party shall not affect, relieve or reduce the Consultant's indemnification or defense obligations. The provisions of this Section are not limited by and do not affect the provisions of this Agreement relating to insurance.

3. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply.

4. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration, and that these provisions survive the termination of this Agreement.

(17) **Licenses**. If a license of any kind, which term is intended to include evidence of registration, is required of Consultant, its employees, agents, or subcontractors by federal or state law, Consultant warrants that such license has been obtained, is valid and in good standing, and Consultant shall keep it in effect at all times during the term of this Agreement, and that any applicable bond has been posted in accordance with all applicable laws and regulations. Consultant, its subconsultants, and subcontractors, will obtain and maintain a City of San Pablo Business License at all times during the Term of this Agreement.

(18) **Employment Practices**.

- A. **Employment of Local Residents**. Pursuant to the San Pablo Economic Opportunity Policy, the Consultant and any subcontractors shall contact the San Pablo Economic Development Corporation ("**EDC**") at info@sanpabloedc.org or 510-215-3200, at least ten business days prior to hiring or staffing for fulfillment of the Agreement, describing number, duties and qualifications needed for available positions, and shall fairly consider for employment any workers referred by the EDC within three business days. "**Local Resident**" means an individual having an adjusted household income of less than the Area Median Income for Contra Costa County, and domiciled in the City of San Pablo as of the relevant hiring date, with "domiciled" as defined by Section 349(b) of the California Election Code. Discrimination against Local Residents on the basis of their local status is prohibited.
- B. **Compliance With Law**. Consultant represents that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal opportunity employment. Consultant shall not discriminate in the employment of any person

because of race, color, national origin, ancestry, physical or mental disability, medical condition, marital status, sex, age, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment and Housing Act. Consultant shall comply with all applicable provisions of the Americans with Disabilities Act of 1990 (“ADA”) in performing its obligations under this Agreement. Failure to comply with the provisions of the ADA shall be a material breach of, and grounds for the immediate termination of, this Agreement. In performing Services and providing services under this Agreement, Consultant shall, at its sole cost and expense, comply with all applicable laws of the United States and the State of California; the Ordinances of the City of San Pablo; and the rules, regulations, orders, and directions of their respective administrative agencies and the officers thereof.

(19) Local Subcontracting – Outreach. Consultant shall contact the EDC at info@sanpabloedc.org or 510-215-3200) at least two weeks prior to any subcontract award, providing notice and details regarding subcontracting opportunity. The EDC shall notify qualified local businesses of subcontracting opportunities, and provide technical assistance to qualified local businesses during the subcontracting bidding process.

(20) Termination.

A. City may terminate this Agreement at its sole discretion at any time prior to expiration of the Term or completion by the Consultant of the Services required hereunder. Notice of termination of this Agreement shall be given in writing to the Consultant, and shall be sufficient and complete when same is deposited in the United States Mail, postage prepaid and certified, address as set forth below in Section (21), “Notices.” The Agreement shall be terminated upon the date set forth in the City’s Notice of Termination. If the City terminates this Agreement, the Consultant shall be compensated for all Services satisfactorily performed prior to the time of receipt of cancellation notice, and shall be compensated for materials ordered by the Consultant or its employees, or services of others ordered by the Consultant or its employees, prior to receipt of notice of cancellation whether or not such materials or final instruments of service of others have actually been delivered, provided that the Consultant or its employees are not able to cancel such orders for materials or services of others. Compensation for the Consultant in the event of cancellation shall be determined by City in accordance with the percentage of Services completed and agreed to by the Consultant. In the event of cancellation, all notes, sketches, computations, drawings, and specifications or other data, whether complete or not, remain the property of the City. The City may make copies or extract information from any such notes, sketches, computations, drawings, and specifications, or other data whether complete or not.

B. Termination for Cause. City may terminate this Agreement for cause by providing Consultant with one day’s written notice of such termination if Consultant violates any of the terms and conditions of this Agreement. In City’s discretion and at City’s option, such termination for cause may alternatively be accomplished, where Consultant fails to perform any of the obligations required of Consultant within the time and in the manner provided for under the terms of this Agreement, within seven days after receipt of the notice of such default. Upon City’s termination of this Agreement for cause, City reserves the right to complete the Services by whatever means City deems expedient and the expense of completing such Services, as well as any and all damages to the extent caused by the negligent acts, intentional acts or errors or omissions of the Consultant, shall be charged to the Consultant.

C. Immediate Termination. City may terminate this Agreement immediately in any case where the Consultant engages in fraudulent or criminal activities while performing the

Services, or is otherwise determined to lack the necessary skills to accomplish the desired objectives.

(21) **Ownership of Materials.** Any and all documents, including draft documents where completed documents are unavailable, or materials prepared or caused to be prepared by Consultant pursuant to this Agreement shall be the property of the City at the moment of their completed preparation. All materials and records of a preliminary nature such as survey notes, sketches, preliminary plans, computations and other data, prepared or obtained in the performance of this Agreement, shall be made available, upon request, to City at no additional charge and without restriction or limitation on their use consistent with the intent of the original design.

(22) **Amendments.** This Agreement may be modified or amended only by a written document executed by both Consultant and City's City Manager and approved as to form by the City Attorney. Such document shall expressly state that it is intended by the Parties to amend the terms and conditions of this Agreement.

(23) **Abandonment by Consultant.** In the event the Consultant ceases performing Services under this Agreement or otherwise abandons the Agreement prior to completing all of the Services, Consultant shall, without delay, deliver to City all materials and records prepared or obtained in the performance of this Agreement, and shall be paid for the reasonable value of the Services performed up to the time of cessation or abandonment, less a deduction for any damages or additional expenses which City incurs as a result of such cessation or abandonment. Consultant agrees to be financially responsible and to compensate City for any costs incurred by City in retaining the services of another to replace Consultant, but only to the extent that the costs of retaining the replacement exceed what remaining amounts would have been paid to Consultant under the Agreement had Consultant completed the Services.

(24) **Waiver.** The waiver by either Party of a breach by the other of any provision of this Agreement shall not constitute a continuing waiver or a waiver of any subsequent breach of either the same or a different provision of this Agreement.

(25) **No Third-Party Rights.** The Parties do not intend to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty, covenant, obligation, or undertaking established herein.

(26) **Severability.** Should any part of this Agreement be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of this Agreement, which shall continue in full force and effect, provided that the remainder of this Agreement, absent the unexcised portion, can be reasonably interpreted to give effect to the intentions of the Parties.

(27) **Compliance with Laws.** In the performance of this Agreement, Consultant shall abide by and conform to any and all applicable laws of the United States, the State of California, and City ordinances. Consultant warrants that all Services done under this Agreement will be in compliance with all applicable safety rules, laws, statutes and practices, including but not limited to Cal/OSHA regulations.

(28) **Controlling Law and Venue.** This Agreement and all matters relating to it shall be governed by the laws of the State of California, and venue for any legal action arising from or

relating to this Agreement will be in the Superior Court of Contra Costa County, and no other place. Consultant hereby waives the removal provisions of Code of Civil Procedure section 394.

(29) **Breach.** In the event that Consultant fails to perform any of the Services described in this Agreement or otherwise breaches the Agreement, City shall have the right to pursue all remedies provided by law and equity. Neither payment by the City nor performance by Consultant shall be construed as a waiver of either Party's rights or remedies against the other. Failure to require full and timely performance of any provision, at any time, shall not waive or reduce the right to insist upon complete and timely performance of such provision thereafter. In the event of any suit, action or proceeding brought by either party for breach of any term hereof or to enforce any provision hereof, the prevailing party shall be entitled to recover its reasonable attorney's fees.

(30) **Inspection by Other Agencies.** Authorized representatives of the Federal Government, the California Department of Transportation, or other government agencies which provide grant funding (if any) for this Agreement and the City may have the right to inspect Consultant's work product.

(31) **Conflict of Interest.** Consultant warrants and covenants that Consultant presently has no interest in, nor shall any interest be acquired in, any matter which will render the services required under the provisions of this Agreement a violation of any applicable state, local, or federal law. In the event that any conflict of interest should nevertheless arise, Consultant shall promptly notify City of the existence of such conflict of interest so that the City may determine whether to terminate this Agreement. Consultant further warrants its compliance with the Political Reform Act (Gov. Code section 81000 et seq.) respecting this Agreement. Where City Manager determines, based on facts provided by City staff, that Consultant meets the criteria of section 18701 of the FPPC regulations, the individual providing services under this Agreement shall be considered a "designated employee" under the City's conflict of interest code, and shall be required to complete FPPC Form 700 regarding his or her economic interests in a timely manner.

(32) **Copyright.** Upon City's request, Consultant shall execute appropriate documents to assign to the City the copyright to work created pursuant to this Agreement. The issuance of a patent or copyright to Consultant or any other person shall not affect City's rights to the materials and records prepared or obtained in the performance of this Agreement. City reserves a license to use such materials and records without restriction or limitation consistent with the intent of the original design, and City shall not be required to pay any additional fee or royalty for such materials or records. The license reserved by City shall continue for a period of fifty years from the Effective Date unless extended by operation of law or otherwise.

(33) **Whole Agreement.** This Agreement constitutes the entire understanding and agreement of the parties. This Agreement integrates all of the terms and conditions mentioned herein or incidental hereto and supersedes all negotiations or previous agreements between the Parties with respect to all or any part of the subject matter hereof.

(34) **Multiple Copies of Agreement.** Multiple copies of this Agreement may be executed but the parties agree that the Agreement on file in the office of the City Clerk is the version of the Agreement that shall take precedence should any differences exist among counterparts of the document.

(35) **Notices.** Notices required by this Agreement shall be personally delivered or mailed, postage prepaid, as follows:

To Consultant:
Name, Title

Address

To the City: City Manager
13831 San Pablo Avenue
San Pablo, CA 94806

Each Party shall provide the other Party with telephone and written notice of any change in address as soon as practicable. Notices given by personal delivery shall be effective immediately. Notices given by mail shall be deemed to have been delivered forty-eight hours after having been deposited in the United States mail.

(36) Federal Funding Requirements (if applicable). If this Agreement is subject to federal funding, in whole or in part, it must comply with the uniform federal award procurement requirements set forth in 2 CFR §§ 200.318 – 200.326, as may be amended from time to time, and contain the applicable provisions described in Appendix II to Part 200 – *Contract Provisions for non-Federal Entity Contracts Under Federal Awards*, which are attached to this Agreement as Exhibit C. In the event of a conflict or inconsistency between Exhibit C, Exhibit D, if applicable, and this Agreement, Exhibit C will control.

[Indicate whether the Agreement is subject to federal funding by marking the appropriate provision below.]

- ☒ This Agreement is subject to federal funding. See Exhibit C.
☐ This Agreement is not subject to federal funding.

(37) Caltrans Funding Requirements (if applicable). If this Agreement is for architectural and/or engineering services subject to reimbursement or funding, in whole or in part, by Caltrans and administered under the Local Assistance Procedures Manual (“LAPM”), it must include the provisions set forth in Exhibit D, *Mandatory Fiscal and Federal Provisions for Architectural and Engineering Consultant Contracts Subject to Caltrans Funding*. In the event of any conflict or inconsistency between Exhibit D and this Agreement, Exhibit D will control.

[Indicate whether the Agreement is subject to reimbursement or funding by Caltrans by marking the appropriate provision below. Be sure to check the **current** LAPM requirements.]

- ☐ This Agreement is subject to funding by Caltrans. See Exhibit D.
☒ This Agreement is not subject to funding by Caltrans.

IN WITNESS WHEREOF, Consultant has executed this Agreement, and the City, by its City Manager, who is authorized to do so, has executed this Agreement.

APPROVED AS TO FORM:

CITY OF SAN PABLO

A Municipal Corporation

By _____
Lynn Tracy Nerland, City Attorney

By _____
Matt Rodriguez, City Manager

[NAME OF CONSULTANT]

By _____
Consultant, **[Title]**

ATTEST:

By _____
Patricia Ponce, City Clerk

Dated _____

Attachments: Exhibit A: Request for Proposals, dated _____
 Exhibit B: Consultant's Proposal, dated _____
 Exhibit C: Federal Contract Provisions

N:\RESOURCES\City Forms\Contracts\01 Template Consultant Agreements\AGR Master
Consultant Agreement Template 102418.dotx

Exhibit A
<Insert City's Request for Proposals>

SAMPLE

Exhibit B
<Insert Consultant's Proposal>

SAMPLE

Exhibit C

Federal Contract Provisions

Federally Funded Projects. This Project is funded in whole or in part by federal funds and subject to the following federal requirements under the terms of the funding agreement(s) between City and the federal agency or agencies providing federal funds, which are fully incorporated by this reference and made part of the Agreement. Copies of any funding agreement between City and a funding agency will be made available upon request. In the event of any conflict or inconsistency between Exhibit C, Exhibit D, if applicable, and this Agreement, Exhibit C will control.

1. **Equal Opportunity.** If this Agreement is for public works, during the performance of this Agreement, the Consultant agrees as follows:

(A) The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Consultant will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(B) The Consultant will, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(C) The Consultant will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision will not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Consultant's legal duty to furnish information.

(D) The Consultant will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the labor union or workers' representatives of the Consultant's commitments under this section, and will post copies of the notice in conspicuous places available to employees and applicants for employment.

(E) The Consultant will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the United States Secretary of Labor.

(F) The Consultant will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the United States Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the United States Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(G) In the event of the Consultant's noncompliance with the nondiscrimination clauses of this Agreement or with any of the rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further federal government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the United States Secretary of Labor, or as otherwise provided by law.

(H) The Consultant will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (H) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the United States Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Consultant will take such action with respect to any subcontract or purchase order as the City or funding agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event a Consultant becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the City or funding agency, the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

2. **Davis-Bacon Act.** If this Agreement is for public works, Consultant will pay wages to laborers and mechanics, not less than once a week, and at a rate not less than the current federal prevailing wages specified in the Davis-Bacon Act Wage Determination attached hereto and incorporated herein. By entering into this Agreement, Consultant accepts the attached Wage Determination. <The current Davis-Bacon Act Wage Determination, which may be accessed at <https://www.wdol.gov/dba.aspx> must be printed and included with the Agreement.>

3. **Copeland "Anti-Kickback" Act.** If this Agreement is for public works, Consultant will comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 CFR Part 3 as may be applicable, which are incorporated by reference into this Agreement. Consultant and subcontractors must insert this requirement into subcontracts of any tier. Consultant is responsible for compliance with these requirements by each subcontractor of any tier.

4. **Contract Work Hours and Safety Standards Act.** In addition to the California state law requirements, Consultant and each subcontractor must comply with the requirements

of the federal Contract Work Hours and Safety Standards Act, as set forth in 40 U.S.C. 3701-3708, as supplemented by the regulations set forth in 29 CFR Part 5, as may be amended from time to time, which are fully incorporated herein, including:

(A) No Consultant or subcontractor will require or permit any laborer or mechanic performing Work for the Project to work in excess of 40 hours in a work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours during that work week.

(B) If Consultant or a subcontractor violates this requirement, the Consultant and any responsible subcontractor will be liable for the unpaid wages. In addition, the Consultant and subcontractor will be liable to the United States for liquidated damages. The liquidated damages will be computed with respect to each individual worker as specified under federal law.

(C) Consultant and subcontractors must insert this requirement into subcontracts of any tier. Consultant is responsible for compliance with these requirements by each subcontractor of any tier.

5. **Rights to Inventions.** If the federal funding for this Agreement meets the definition of “funding agreement” under 37 CFR section 401.2(a) and constitutes an agreement between the City and a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency, will apply to this Agreement and are fully incorporated into the Agreement by this reference.

6. **Clean Air Act.** If the Agreement is for an amount in excess of \$150,000, Consultant and each subcontractor must comply with the requirements of the Clean Air Act, as amended, (42 U.S.C. §§ 7401-7671q), which are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the awarding agency and the applicable Regional Office for the Environmental Protection Agency. Consultant and subcontractors must insert this requirement into subcontracts of any tier in excess of \$150,000.

7. **Federal Water Pollution Control Act.** If the Agreement is for an amount in excess of \$150,000, the requirements of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251-1387) apply to this Agreement and are fully incorporated into the Agreement by this reference, including requirements for reporting violations to the awarding agency and the applicable Regional Office for the Environmental Protection Agency requirements for reporting violations. Consultant and subcontractors must insert this requirement into subcontracts of any tier in excess of \$150,000.

8. **Suspension and Debarment.** Consultant is required to verify that neither it, nor its principals, as defined at 2 CFR section 180.995, or its affiliates, as defined at 2 CFR section 180.905, are excluded or disqualified, as defined at 2 CFR sections 180.935 and 180.940. Consultant must comply with 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C, and must include a provision requiring compliance with these regulations in any subcontract of any tier. If it is later determined that the Consultant did not comply with the applicable subparts, the Federal Government may pursue available remedies, including, but not limited to, suspension

and/or debarment. By submitting a bid and entering into this Agreement, Consultant agrees to comply with these requirements.

9. **Byrd Anti-Lobbying Amendment.** If the Agreement is for an amount in excess of \$100,000, Consultant must comply with the Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352) and file the certification provided at 44 CFR Part 18, Appendix A, and any disclosures, with the applicable federal agency. Each tier certifies to the tier above that it will not and has not used federal-appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier will also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures will be forwarded from tier to tier up to the recipient.

10. **Procurement of Recovered Materials.** The requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act at 42 U.S.C. § 6962, apply to this Agreement and are fully incorporated into the Agreement by this reference. For individual purchases of \$10,000 or more, Consultant will make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired (A) competitively within the Agreement schedule, (B) in conformance with Agreement performance requirements, or (C) at a reasonable price. Information on this requirement, including a list of EPA-designated items, is available at the EPA's Comprehensive Procurement Guidelines website: <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

11. **Small and Minority Businesses.** When procuring subcontractors, Consultant must take all necessary affirmative steps pursuant to 2 CFR § 200.321(b), subject to the limitations of law, to ensure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Affirmative steps must include:

- (A) Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
- (B) Assuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources.
- (C) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises.
- (D) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
- (E) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

Attachment 2 - EPA Grant Application

Abstract – Regional Alternative Compliance for a Sustainable Bay

The cities of San Pablo, Walnut Creek and Richmond (in cooperation with cities across the Bay Area) are proposing to establish a water quality trading/banking system. A water quality trading system has the ability to more efficiently and affordably improve water quality, reduce compliance pressures on permittees, and decrease the overall costs of water quality improvements. This project will help to promote green infrastructure/low impact development (GI/LID) across the Bay Area with the potential for substantial costs savings while meeting the established water quality goals.

Lead Applicant:	City of San Pablo
Co-Applicants:	City of Walnut Creek & City of Richmond
Funding Requested:	\$680,000
Total Project Cost:	\$1,360,000
Project Period:	Three Years: June 2019 - June 2022
Measurable Outcomes:	Water quality trading system with online tracking tool, Implementation of a pilot project through a water quality trading system, Compliance PCB reductions through GI in NPDES permit, 90% reduction of GI PCB compliance costs

1. Project Description and Activities

1.A Background

San Francisco Bay is contaminated with many legacy pollutants, including PCBs and mercury, which make their way to the Bay through stormwater runoff and various other pathways. Fish and shellfish contaminated with PCBs and mercury pose health risks to both humans and wildlife. Therefore, in 2010 U.S. EPA approved a Total Maximum Daily Load (TMDL) for PCBs and mercury for the Bay Area.

The TMDL established an initial 20-year timeframe for reducing PCBs in fish tissue to safe levels for human consumption. A Water Board Staff Report accompanying the TMDL calculated the average sediment target PCBs concentration that would yield the fish tissue target (10 micrograms (µg) per kilogram of fish tissue); this was found to be 1 µg of PCBs per kg of sediment (µg/kg; parts per billion)¹. This Staff Report also estimated that a ten-fold reduction in San Francisco Bay sediment PCBs concentrations was needed to reach the average sediment target concentration. Even though much of the PCBs pollution affecting the Bay is the result of releases that occurred decades ago, low-concentration sources continue to transmit PCBs to the Bay via stormwater runoff. The adopted TMDL requires a wasteload allocation of 2 kg/yr of PCBs for municipal stormwater discharges. The Staff Report estimated a total stormwater load of 20 kg/yr at the time of the TMDL development. Subtracting the wasteload allocation from the estimated load yields a required 18 kg/yr region-wide reduction in PCBs from urban and non-urban stormwater runoff. Per the TMDL, the 2 kg/yr wasteload allocation is distributed to each County that discharges to the San Francisco Bay based on their year 2000 population. The San Francisco Bay Municipal Regional Stormwater Permit (MRP)² states the discharges in the MRP area have been allocated 1.6 kg/yr of the

¹ California Regional Water Quality Control Board San Francisco Bay Region. "Total Maximum Daily Load for PCBs in San Francisco Bay Final Staff Report for Proposed Basin Plan Amendment." San Francisco Bay PCBs TMDL Project, 2008, www.waterboards.ca.gov/rwqcb2/water_issues/programs/TMDLs/sfbaypcbs/PCBs%20TMDL%20Final%20Staff%20Report%20April2017.pdf.

² California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit Order No. R2-2015-0049 NPDES Permit No. CAS612008 November 19, 2015. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf.



total 2 kg/yr wasteload allocation (equivalent to a needed load reduction of 14.4 kg/yr of the estimated total load reduction of 18 kg/yr).

Municipalities regulated under the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) National Pollutant Discharge Elimination System (NPDES) MRP have been spending millions implementing programs, plans and infrastructure to meet these TMDL requirements. However, since 2010 studies have shown that population is an imperfect way to distribute the PCB (and mercury) pollutant loads. Many permittees are currently working on Reasonable Assurance Analyses (RAAs) and Green Infrastructure Plans to help determine where the pollutants are located and where infrastructure can be installed to reduce these pollutants from entering the Bay. However, studies and modeling to date demonstrate that PCBs (and mercury) are found in higher concentrations in old industrial and old urban land use areas. These two land use areas are not distributed based on population; therefore, it can be difficult and incredibly expensive for newer cities (with fewer old land use areas) with large populations to meet their pollutant load reduction allocations. Compounding the issue, many of the jurisdictions with old industrial areas have a tendency to be in disadvantaged communities with insufficient funds and/or new development to implement the required infrastructure.

1.B PCB Case Study: Understanding of the Issue*

The Contra Costa County Clean Water Program has recently completed the draft preliminary results of their RAA. Results of the modeling identified that if each city in Contra Costa were required to reach their individual population based PCB reduction target for green infrastructure (GI), 9 cities (53%) would likely be non-compliance with the NPDES MRP because these cities do not have enough viable GI space to reach their required GI reduction allocation. (This modeling includes the expected private redevelopment that will occur between now and 2040 and excludes East County permittees that are not subject to the PCB TMDL).

However, if the Contra Costa County permittees work collectively, approximately 170-200 projects (treating 350-450 acres) would need to be implemented for all county permittees to meet the required PCB load reductions through GI (some of these projects could be lumped together for efficiencies). Initial costs estimates shown in **Table 1** demonstrate an over 90% savings if the goal is achieved through a countywide collaborative effort. Over 75% of these projects would be in one jurisdiction and approximately 90% of the projects would be in just three permittee jurisdictions. It is clear that if Contra Costa County permittees are to meet the required TMDL wasteload allocation for PCBs and meet the required loads reduced through GI, it will be imperative for jurisdictions to work together to fund these projects. In spite of this, there is no current mechanism for legal and financial protections for jurisdictions in pursuit of this type of collaboration.

Table 1- Example of Magnitude of Cost Savings

Scenario	Estimated Required Treatment acres	Assumed cost per acre of Treatment	Cost
Contra Costa Permittees attempt GI goal individually	9,000 - 12,000	\$200,000	\$1.8 - \$2.4 Billion
Contra Costa Permittees achieve GI goal collaboratively	350 - 450	\$200,000	\$70 - \$90 Million
Approximate Savings			\$1.7 - \$2.3 Billion

**All numbers provided in this section are draft preliminary results and are still being reviewed however; it is believed that they provide an accurate representation of the type of issue that permittees are facing to meet the PCB wasteload allocation and green infrastructure requirement.*

1.C Potential Solution

To help solve this issue, the cities of San Pablo, Walnut Creek and Richmond (in collaboration with cities across the Bay Area) are proposing to establish a water quality trading/banking system. Water quality trading and banking systems have been developed across the county as a way to provide greater flexibility, reduce overall compliance costs, and encourage voluntary participation to reduce pollutant sources within the watershed. Trading/Banking is based on the fact that pollutant sources in a watershed may face very different costs to control the same pollutant. Trading programs permit organizations facing higher pollution control costs to meet their regulatory obligations by purchasing environmentally equivalent (or superior) pollution reductions from another source at lower cost. These systems can also provide ancillary environmental benefits such as carbon sinks, flood retention, riparian improvement, and habitat³.

The proposed system would meet the current Alternative Compliance or In-Lieu Compliance provision within the existing MRP (Order No. R2-2015-0049) but it would include a method for permittees to exchange wasteload allocation “credits” across jurisdictional boundaries.

There are various different ways and types of banking/trading systems, all of which will be examined as part of this project. The developed system will be consistent with the 2003 U.S. EPA Trading Policy and will consider the guiding principles established by the National Network on Water Quality Trading⁴:

1. Accomplish regulatory and environmental goals;
2. Be based on sound science;
3. Provide sufficient accountability, transparency, accessibility, and public participation to ensure that promised water quality improvements are delivered;
4. Produce no localized water quality problems;
5. Be consistent with the Clean Water Act regulatory framework; and
6. Include appropriate compliance and enforcement provisions to ensure long-term success.

It is currently unknown the exact type of system that will be developed, however the proposed project would be answering the following key questions, along with many others on the path to developing a regional system.

- What does a water quality trading program in the Bay Area look like?
 - The project will explore different types of systems that have been developed in other areas. It will look at centralized systems (central banking entity to sell and buy credits, also known as an Open Market system) and decentralized systems (individual agreements just tracked at a regional level, also known as a Case-by-Case system). The different systems will be examined in detail, presented to various committees and then the best fit would be used as a basis for a system in the Bay Area.
- What is a water quality credit in the Bay Area?
 - The project will work with jurisdictions, organization and regulatory agencies to define what will constitute a credit in the Bay Area (acres treated, pollutants reduced, sediment reduce, etc.). Once the definition of a credit is determined (and there could be multiple different credits), this will be used to measure costs and compliance.

³ <https://www.epa.gov/npdes/frequently-asked-questions-about-water-quality-trading#benefits>

⁴ Willamette Partnership, World Resources Institute, and the National Network on Water Quality Trading, 2015. Building a Water Quality Trading Program: Options and Considerations. <http://willamettepartnership.org/wp-content/uploads/2015/06/BuildingaWQTProgram-NNWQT.pdf>.

- The project will explore different risk levels associated with the water quality credit trading systems (i.e. conventional-based system, partial pay for performance and credit purchase).
- How do projects fund and ensure the ongoing operations and maintenance?
 - The project will develop a system for determining the ongoing operations and maintenance requirements of projects and how they will be funded. The project will also determine the responsible party for verifying and inspecting the off-site stormwater treatment facilities.
- How does the region track and approve projects?
 - The project will develop the required elements needed for tracking and will work with San Francisco Estuary Institute (SFEI) to develop an online tracking system that will be used for the pilot project(s). The project will work with regulatory agencies to determine the requirements for approval.
- Who is responsible for tracking of projects?
 - The project will work with cities, regional organizations, and regulatory agencies to agree on the entity responsible for the ongoing tracking of projects.
- How does the region ensure the program is legally defensible? What is the appropriate legal agreement for participating municipalities that allows for a regional alternative compliance and water quality trading system?
 - The project will work with a legal team and legal representatives from jurisdictions to ensure that the program developed is legally defensible. The project will also work with regulatory agencies to ensure all required regulatory components are established for a fully functioning banking/trading system.

1.D Project Activities

Committees and Project Team

The project would establish three committees:

- **Steering Committee-** This committee will be comprised of up to four (4) cities that commit significant time and resources and ultimately guide the development of this alternative compliance plus banking/trading system (The System). These cities will be bringing potential projects, funding and/or developers to pilot The System once developed.
- **Advisory Committee-** This will be a large committee open to stakeholders (permittees, regulatory agencies, other organizations) that have an interest in being involved in future compliance projects and therefore would like to provide input.
- **Technical Advisory Committee-** This committee will consist of technical or legal experts to advise on specific issues or questions that arise as part of the project.
- **Project Team-** The Steering Committee will release an RFP for consultants to assist cities in the development and design of The System. The Project Team will consist of the selected consultant(s) and the Steering Committee.

Orientation Meeting(s) - (1-3 months)

The Project Team will have 1-3 kick-off and orientation meetings. These meetings will ensure there is clear understanding of the background and ultimate end goals for the project. These meetings will also establish some of the aspects or questions that will need to be answered to develop The System. The Project Team will research other systems around the country to present at a workshop for all project committees. The project is aware of the EPA's *Water Quality Trading Basics and Policy* website and will be reviewing the provided documents as part of the project.

Advisory Committee Workshop- A part of the project kick-off, the Steering Committee will host all other participants in one or two workshops to review example systems around the country and discuss the various questions/aspects that will need to be resolved to develop a system in the Bay Area. An example of the elements that will be reviewed and discussed include:

1. Identifying and establishing regulatory instruments to support trading;
2. Defining who is eligible to trade, where trading can occur, and what is being traded;
3. Determining eligibility for participants in the trading program;
4. Quantifying water quality benefits;
5. Managing risk and uncertainty in the trading program;
6. Defining credit characteristics;
7. Establishing project implementation and assurance guidelines;
8. Establishing procedures for project review, certification, and tracking;
9. Ensuring compliance and enforcement;
10. Establishing adaptive management guidelines for ongoing program improvement and performance tracking; and
11. Defining roles, responsibilities, transaction models, and stakeholder engagement processes.⁴

System Development- (1.5 years)

After understanding the questions, parameters and concerns regarding a regional alternative compliance and banking/trading system the Project Team will meet to develop the specifics of The System. At various key points, the Steering Committee will present the progress to the Advisory Committee to obtain feedback. The team will then refine the program further. This will be a continual iterative process until the basis for the system is developed.

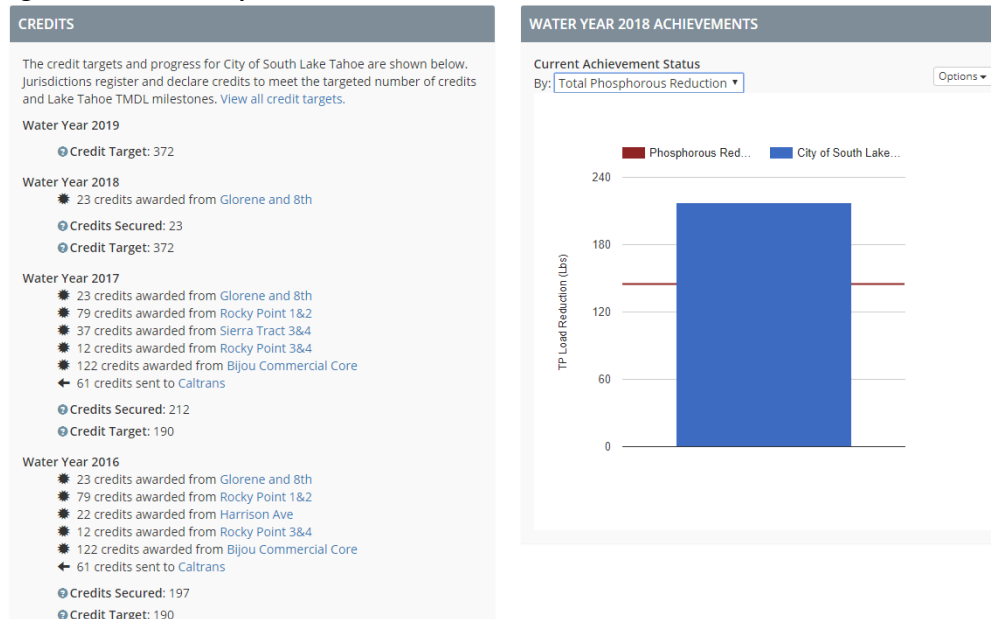
Development of Tracking System- (1 year)

This project will work with San Francisco Estuary Institute (SFEI) to develop a pilot online tracking system through the SFEI GreenPlan-IT Tracker. Funded initially by another EPA WQIF grant, the GreenPlan-IT Tracker (Tracker) is a regional, online database and data visualization system that complements the various components of this proposed project. As such, the Tracker tool handles the accounting of GI across the landscape, recording the characteristics of those installations, capturing the geospatial details, logging operation and maintenance history, and calculating the effect of those features on stormwater flow attenuation, filtration, and load reduction. Furthermore, the tool is designed to report spatial and cumulative outcomes of GI implementation for annual reports.

This task would fund SFEI staff to adapt the Tracker to suit the identified needs of the Project Team to monitor and track projects that are implemented through The System. SFEI anticipates augmenting the tracking of GI projects to account for potential credit trading, recorded agreements and relationships, and other legal and financial features that will optimize the transparency, security, and effectiveness of the proposed alternative compliance procedures. By following clear legal and accounting standards, the project team would ensure that any new features would be scalable to broader applications, should these enhancements be adopted by interests beyond the project partners.

The project(s) that are piloted through this grant will use the developed tracking system and provide comments for improvements. The Tracker will be created using a geospatial database that is highly versatile; therefore, the tool can be tailored to meet the needs of individual cities while also leveraging features common to all. All layers and data will be made exportable to allow project partners to use the tool for the foreseeable future or take their compiled data and place it into another information management system of their choice.

Figure 1- Tahoe Example of Online Tracker



Template Documents- (1 year)

Once the basis of The System is developed, the Project Team will create various templates that will be used to implement projects. Documents will be presented to the Advisory Committee for review and comment. The types of templates that would be developed may include:

- Memorandum of Understanding (MOU) or Contract documents
- Spreadsheets for calculations and cost structure
- Invoice documents/structures
- Annual operation & maintenance certification documentation
- Approval requirements/templates (if necessary)
- Implementation recommendation and guides for jurisdictions
- Tracking system (i.e. GIS mapping and/or database)

Final Legal and Regulatory Review- (6 months)

The Project Team will be working with legal experts throughout the process, however after the template documents are developed, a final in-depth review with legal and regulatory experts will occur to ensure everything is legally defensible and approved by regulatory or other necessary agencies.

Final Document Review- (3 months)

All documents and deliverables will be presented to the Steering and Advisory Committees for final review and comment. After comments are received, the documents will be finalized and published.

Pilot Project(s) Implementation- (2 years)

During the development of the scope and template documents, members of the Steering Committee will identify developers and other organizations that will be used to pilot the new System. Once The System is in place, these cities will implement pilot project(s) using all materials that have been developed and provide feedback regarding any issues. This grant will pilot a minimum of one project through the developed System.

Note: The proposed grant application does not include the construction of the implementation project(s) during the grant timeframe. Due to the four-year grant implementation period the proposed grant application will execute the required documents for a project to be implemented through the new water quality trading system but it is anticipated that the actual construction completion of the project(s) may occur after the four-year timeframe.

Example Projects for Implementation

City of Walnut Creek

Up to two (2) private developments in Walnut Creek will be identified as suitable funding partners to pilot in the regional alternative compliance and water quality trading program. Walnut Creek's Engineering and Planning staff would screen potential projects within the North Downtown Specific Plan and West Downtown Specific Plan and select two potential project 'investors'. These projects, categorized as "Special Projects" under Provision C.3.ii(a) of the MRP 2.0 receive an incentive for installing non-Low Impact Development (LID) facilities on-site. The proposed projects will identify the appropriate alternative compliance and trading system that yield greater water quality benefits for these projects within the cities of San Pablo and/or Richmond.

City of San Pablo

The City of San Pablo will provide 2-3 potential projects (or project sites) for 'investors' to implement through piloting the developed System. One of the three projects that will be proposed as pilot projects will be the City's Sutter Avenue Green Street Project. The proposed project is a green street retrofit that would incorporate a variety of types of green infrastructure along Sutter Avenue. The project will provide multiple benefits, including reducing flooding, calming traffic, improving pedestrian safety, planting street trees, and improving stormwater quality. The types of green infrastructure facilities may include bioretention, installed variously as bulb-outs at intersections and as mid-block chicanes and Silva Cell modular suspended pavement systems, which treat stormwater and promote street tree growth by retaining or detaining stormwater in a soil matrix below the ground surface. **Attachment 1.A** presents concept design of the project with schematic cross-section and examples of bioretention facilities and Silva Cells. This project has the potential to:

- Treat 12 acres of impervious surface area
- Plant 30 trees
- Reduce localized flooding
- Reduce PCB loading to the Bay by 0.72 grams per year
- Reduce stormwater pollutants such as PAHs and heavy metals by 40-90%
- Reduce trash from entering Wildcat Creek

City of Richmond

The City of Richmond will provide 1-3 potential project sites for 'investors' to implement through piloting the developed System. One of the three potential pilot projects will be the City's 2nd Street Bikeway Project. Second Street in the City of Richmond, between Cutting Boulevard to the south and Ripley Avenue to the north, has been identified as a potential location for the implementation of a complete street incorporating a bikeway and green infrastructure retrofit. A complete street would provide continued safe pedestrian and bike access extending north and south from the current terminus of the Richmond Greenway Trail, and allow 2nd Street to become a biking or walking destination. Proposed stormwater treatment retrofits within the 2nd Street right-of-way include a combination of intersection bioretention bulb-outs and Silva Cells under permeable paving. A total of 40 bioretention bulb-outs (18 with underdrain, 22 without) and 41 segments of Silva Cells under permeable paving are proposed for the 2nd

Street bikeway project. A group of publicly-owned parcels to the east of 2nd Street and just north of I-580 present an additional opportunity to implement green infrastructure to treat portions of I-580 and the associated right-of-way in addition to drainage from the old residential and industrial areas to the north of I-580 east of 3rd Street. The publicly-owned parcels at the end of 3rd Street and adjacent to cul-de-sacs at the end of 4th, 5th, 6th, and 7th Street are proposed to incorporate bioretention with underdrains.

Attachment 1.B presents a concept design of the project with schematic cross-section and examples of bioretention facilities and Silva Cells. This project has the potential to:

- Treat 72 acres of treated area
- Plant 70 trees
- Reduce localized flooding
- Reduce PCB loading to the Bay by 2.3 grams per year
- Reduce mercury loading to the Bay by 1.1 grams per year
- Reduce stormwater pollutants such as PAHs and heavy metals by 40-90%

Presentations- (1 year)

After the full System is in place the project team will present to jurisdictions and other interested parties in the region. The project will deliver a minimum of four (4) presentations at various meetings, conferences and events.

2. Resiliency

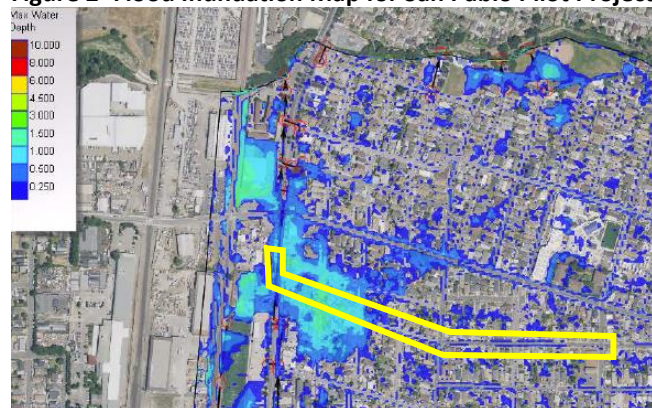
2.A Long Term System Resiliency

The proposed water quality trading system has the ability to be used and expanded to implement all types of projects that achieve a desired water quality goal. There is potential for The System that is developed to be used to fund projects that provide long-term resiliency to sea level rise and changing rainfall patterns. Examples of these types of projects may include estuary restoration, creek restoration, wetland habitat, and flood protection. If a project can demonstrate that it improves water quality and can provide a desired credit, then the System that is developed can help to provide funding for that project.

2.B Pilot Project Resiliency

The City of San Pablo's proposed Sutter Street pilot project is located in an area with significant flooding due to inadequate stormdrain infrastructure and a tailwater condition within the creek. The proposed project has been modeled to reduce flooding in the project area by over 50%. The project will help the community of San Pablo be more resilient to changing weather patterns of increased intense rainfall, which will reduce flooding costs to the City and the residents.

Figure 2- Flood Inundation Map for San Pablo Pilot Project Location



3. Water Quality Improvement

Table 2: Link to EPA Strategic Plan and SFEP Comprehensive Conservation Management Plan

EPA Strategic Plan	How EPA Objectives will be met through the Bay Area Water Quality Trading System Pilot Project
<p><u>Goal 1</u>: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.</p> <p><u>Objective 1.2</u>: Ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.</p>	<p>The Project will develop a system that will allow the implementation of Green Infrastructure and prioritize area of high water quality concern to meet the TMDL requirements in the most cost effective way. It will also allow jurisdictions and organizations to prioritize projects for their multi-benefits, locations, pollutant concerns or other factors that are deemed beneficial for their community.</p>
SFEP Comprehensive Conservation Management Plan (CCMP) Objectives	How CCMP Objectives will be met through the Bay Area Water Quality Trading System Pilot Project
<u>A</u> : Protect, restore, and enhance ecological conditions and processes that support self-sustaining natural communities	The Project will promote the development of LID/GI and prioritize areas of water quality concern so that projects can be implemented to better restore natural processes of infiltration.
<u>E</u> : Promote integrated, coordinated, multi-benefit approaches to increasing resiliency	The Project will allow jurisdictions and organizations from across the Bay Area to work together to meet water quality goals through the implementation of multi-benefit projects in an integrated cost effective way.
<u>H</u> : Reduce contaminants entering the system and improve water quality	The Project will promote and encourage LID/GI, which are scientifically proven to reduce pollutants and increase groundwater infiltration.
<u>K</u> : Promote efficient and coordinated regional governance	The Project will allow regional coordination of LID/GI projects and funding. Projects will be able to be prioritize for regional benefits to meet TMDL requirements.
SFEP Comprehensive Conservation Management Plan (CCMP) Actions	How CCMP Actions will be met through the Bay Area Water Quality Trading System Pilot Project
<u>12</u> : Restore watershed connections to the Estuary to improve habitat, flood protection, and water quality	The Project will create a system and example projects that will improve water quality and will allow jurisdictions to fund projects that have multi-benefit solutions, such as flood production and improved habitat.
<u>24</u> : Manage stormwater with low impact development and green infrastructure	The Project will create a system that will promote and encourage LID/GI in a cost effective way.
<u>25</u> : Address emerging contaminants	The developed system can be expanded to address future contaminants.
<u>27</u> : Implement Total Maximum Daily Load projects in the Estuary, including projects to reduce mercury, methylmercury, pesticides, and areas of low dissolved oxygen	The Project will allow jurisdictions and organizations to implement projects in the Estuary that reduce San Francisco Bay TMDL pollutants, even if that jurisdiction does not have an Estuary within their jurisdictional boundary.

4. Geographic Location

The proposed system is intended for the Bay Area counties that are currently subject to the Water Board Region 2 NPDES MRP. These include the jurisdictions in the following counties: Contra Costa, Alameda, Santa Clara, San Mateo, Vallejo, and Fairfield-Suisun. However, since jurisdictions in the North Bay and San Francisco drain to the Bay, they have an interest in the program and have also been invited to join the Advisory Committee, **Attachment 1.C**.

While the project is relevant the greater San Francisco Bay Areas, the pilot projects currently identified are located within Contra Costa County. The San Pablo projects are located within the Wildcat Creek watershed and the Richmond project runoff go directly to the Richmond Harbor. Specific locations of these projects are in **Attachment 1.D** and described in Section 1.D.

5. Outputs and Outcomes

Table 3: Outputs and Outcomes

Outputs (activity, effort and/or work product during project period)	Outcomes (quantitative environmental results)	
	Short-Term (1-5 Years)	Long-Term (5-20+ Years)
Quarterly Progress Reports Water Quality Trading Workshop Twenty Committee Meetings Template Contracting and/or MOU documentation Template annual operation & maintenance certification documentation Design Documents for Pilot Project(s) Green Plan-IT Pilot Tracking System Final Project Report Regional Water Quality Trading System Four (4) presentations to the region Executed documentation for implementation of pilot project (minimum 1)	Implementation of 3 GI/LID projects in the Bay Area through the developed System Implementation San Pablo Sutter Street and Richmond 2 nd Street Project with: <ul style="list-style-type: none">- 84 acres of treated area- Plant 100 trees- PCB reduction of 3 grams- 40-80% reduction in PAHs and heavy metals	Assist NPDES MRP Permittees achieving the PCB TMDL wasteload allocation (2 kg/yr) NPDES MRP Permittees achieving the PCB loads reduced through Green Infrastructure (3 kg/yr) 90% reduction in GI permit compliance costs Expansion of the System for the reduction of future or other identified pollutants in Bay Area watersheds

Table 3 provides the summary table for the Outputs and Outcomes for the project. The project has 10 main Outputs/Deliverables explained below:

1. **Quarterly Progress Reports-** Quarterly Progress Reports (QPRs) will be provided to EPA with the status, accomplishments and challenges over that reporting period. Progress of the outputs will be tracked through the QPRs.
2. **Workshop Material-** All workshop materials including presentations and meeting minutes will be provided as a deliverable in the QPR.
3. **Meeting Material-** Agendas and meeting minutes will be provided as a deliverable in the QPRs.

4. **Template Documents-** All template documents developed will be a final deliverable. These may include: MOUs/Contracts, operation and maintenance information, example required project information sheets (for tracking and approval purposes), example or template calculation methods and information packets that are developed.
5. **Green Plan-IT Pilot Tracking System-** SFEI will develop a pilot tracking system that will allow projects to input the relevant information for the ongoing tracking and monitoring. This system will be available online for all to view, and those with project information will be able to update the information.
6. **Design Documents-** Design documents developed for pilot project(s) will be provided to the EPA.
7. **Presentations-** A minimum of four (4) presentations will be delivered as part of the project. The EPA will be invited to attend and be provided the presentation material.
8. **Executed Pilot Project Documentation-** The grant includes an executed agreement for a pilot project to test the regional alternative compliance + water trading system. The resulting agreements from this transaction will be provided to the EPA.
9. **Pilot Project Feedback-** The project will provide feedback documentation from the funding source, project recipient and regulatory agency so that any potential changes or improvements are documented.
10. **Final Project Report-** The Final Project Report will be provided to the EPA at the end of the project. The Final Report will include revisions from the draft report.

Metrics and Magnitude

The Case Study in Section 1 provides an example of the magnitude of how this project could affect GI implementation in the Bay Area. There is the potential for hundreds of projects to be implemented and funded through the developed System. If this occurs, permittees will be taking significant strides to meet the GI requirement in the NDPES permit and the total TMDL requirement. This program will provide a path for NPDES MRP permittees to meet the GI requirement of 3 kg/yr.

6. Budget Detail

Table 4: Budget

No.	Project Component	U.S. EPA Grant	In-kind	Total
1	City, Regulatory and Organizational Staff Hours	\$ 15,000	\$ 107,000	\$ 122,000
2	Water Quality Trading System Design and Development	\$ 445,000	\$ 85,000	\$ 530,000
3	Legal Review and Consulting	\$ 90,000	\$ -	\$ 90,000
4	Tracking System and Stormwater BMP Data Standards	\$ 80,000	\$ 40,000	\$ 120,000
5	Pilot Project Design	\$ 50,000	\$ 448,000	\$ 498,000
	Total	\$ 680,000	\$ 680,000	\$ 1,360,000

6.A Narrative Description of Budget

Item 1- The project will provide in-kind staff hours from various cities, regulatory agencies and other organizations. The staff hours from meetings, material development and review, pilot project development and presentations will all be tracking and accounted for as in-kind match.

Item 2- The project will release an RFP for qualified consultants for the development of the proposed water quality trading system. This item includes consultant time for meeting facilitation, document reviews, System development, material development, project management, technical reviews, regulatory reviews and any other aspects that may be needed in the development of the System.

Item 3- The above RFP will also include a specific legal review of the developed System.

Item 4- The project will develop an online tracking system through the SFEI GreenPlan-IT Tracker. The \$40,000 in-kind match will produce documentation of data exchange standards related to stormwater BMPs.

Item 5- To pilot the proposed system the cities of San Pablo and Richmond will need to advance designs of the proposed pilot projects so that the costs for the proposed pilot projects are accurately reflected when executing agreements for credit trading.

7. Timeframe

Table 5: Timeframe

Project Milestones and Deliverables	2019			2020				2021				2022	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Task 1. Management, Oversight and Reporting:													
Grant Contracting and Approval	✓												
Quarterly Progress Reports to U.S. EPA		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Draft Final Project Report to U.S. EPA												✓	
Final Project Report to U.S. EPA													✓
Task 2. Development of Alternative Compliance System													
RFP for Development of System	✓												
Award Contracts for RFP		✓											
Project Kick-off and Orientation		✓	✓										
Regional Workshop on Water Quality Trading			✓										
Committee Meetings			✓	✓	✓	✓	✓	✓	✓	✓			
System Development				✓	✓	✓	✓	✓	✓				
Development of Tracking Tool							✓	✓	✓	✓			
Development of Template Documents							✓	✓	✓	✓			
Final Legal/Regulatory Review									✓	✓			
Final Document Review and Approval										✓			
Task 3. Pilot Project Development													
Identification of Potential Pilot Project(s) and Funder(s)				✓	✓	✓							
Initial Design of Project(s)					✓	✓	✓	✓	✓	✓	✓		
Pilot of Template Documents of Project(s)										✓	✓	✓	
Sign MOU/Contract between Project(s) and Funder(s)												✓	
Task 4. Presentations/Workshops to Bay Area													
Development of Presentation										✓			
Educational Sessions and Presentations											✓	✓	✓

Although no specific construction projects will occur within the timeline of the grant, this grant project proposes agreements to be signed for a minimum of one project to occur as a result of the developed System. It is anticipated that the proposed pilot project will be completed within 1-2 years of the grant

completion. It is highly likely that multitude of projects across the Bay Area will be implemented as a result of this project.

8. Programmatic Capability and Past Performance history

8.A Programmatic Capability and Past Performance- Projects

Rumrill Sports Complex- In 2013/2014 the City of San Pablo received funding from the U.S. EPA (Brownfields Cleanup Cooperative Agreement), Prop 84 and Measure WW to fund a contaminated site cleanup and development of a public sports park. This project provided funding to the City of San Pablo to clean up the Burlington Northern Santa Fe (BNSF) railroad track brownfield site, and conduct community involvement related to the cleanup activities where 4.5 acres were cleaned and redeveloped as the Rumrill Sports Complex. This was a complex project with multiple funding sources however, the City of San Pablo was able to complete the project and meet all of the reporting requirements from the different agencies. Agreement requirements included, but were not limited to quarterly reports, final reports, affiliation signage, community education and involvement, additional written reports when requested, financial records for auditing purposes and inclusion of green feature designs where possible.

Funding Source and Amount: U.S. EPA \$600,000 & Prop 84 \$3,000,000 & Measure WW \$425,000
Total Project Cost: \$5.7M

Roadway Rehab- In 2014 the City of San Pablo received funding to perform repairs, rehabilitation and maintenance on major roadways. The City of San Pablo was able to complete the project and meet all of the reporting requirements. Agreement requirements included, but were not limited to resolution adoption, six monthly invoice reporting, final project report, additional written reports when requested and financial records for auditing purposes.

Funding Source and Amount: One Bay Area Grant (OBAG) \$454,000
Total Project Cost: \$857,000

Wildcat Creek Trail Enhancement- The 2015 project constructed an eight-foot wide asphalt trail along an 840 ft. creek segment between 23rd Street and Davis Park in San Pablo. The project included a trail, pedestrian bridge, lighting, safety improvement and riparian habitat restoration. The City of San Pablo was able to complete the project and meet all of the reporting requirements. Agreement requirements included, but were not limited to site visits, inspection reports, ongoing monitoring, affiliation and educational signage, additional written reports when requested and financial records for auditing purposes.

Funding Source and Amount: Caltrans Environmental Enhancement Fund \$350,000 & ABAG \$120,000
Total Project Cost: \$1.8M

Rumrill Complete Streets- In 2016 the City of San Pablo received funding from multiple sources, including EPA SFBWQIF, for an overhaul of Rumrill Boulevard with the goals to encourage multiple modes of transportation and improve water quality by installing Low Impact Development (LID) in an area of high water quality concern. The project will be completed in December of 2020, to date all reporting and other requirements have been completed on time. Agreement requirements included, but were not limited to quarterly reports, final reports, affiliation signage, community education and involvement, additional written reports when requested, and financial records for auditing purposes.

Funding Source and Amount: EPA \$864,634, Caltrans (ATP) \$4.3 million & (SB1) \$3.2 million, CNRA \$3.9 million, Measure J \$1 Million
Total Project Cost: \$15,000,000

8.B Organizational Experience

As the lead applicant, the City of San Pablo will implement this project under the direction of the Public Works Department. The City of San Pablo has dedicated and experienced staff that deliver multiple grant funded projects annually. Currently the following staff have been assigned to this project as the delivery team:

Project Manager- Amanda Booth, Senior Management Analyst. Amanda has over 8 year of experience in developing and delivering various environmental programs. Ms. Booth manages the stormwater and sustainability programs for the City of San Pablo; as such, she will coordinate and collaborate with other partners of the program, be the lead in the release of RFPs for the project and provide the Quarterly Progress and Final Reports to EPA on the project.

Grant Management- Vicky Voicehowsky, Management Analyst. Vicky Voicehowsky has 3 years of experience in the management and administration of Federal and State grants for local government agencies. She has successfully managed millions of dollars of grant funds from award to closeout, including funding from Federal Highway Administration, Caltrans and the Metropolitan Transportation Commission. Ms. Voicehowsky is the Management Analyst and procurement/grant administrator for the City of San Pablo's Public Works Department. She is responsible for ensuring compliance with all grant agreement policies and procedures; maintaining a record system for grant expenditures and required documentation; and ensuring timely status reporting and preparation of final closeout documentation.

In addition to the Public Works Department, the City has a finance department that has received over 20 consecutive GFOA Awards, which is in recognition to a significant achievement in financial reporting and for demonstrating a constructive "spirit of full disclosure" for our Comprehensive Annual Financial Report. These two departments work cooperatively to ensure a complete and timely project delivery.

9. Expenditure of Awarded Grant Funds

The City of San Pablo has an experienced finance department and administrative staff to help administer the grant funds. The Public Works Department has weekly staff meetings to get updates on projects and discuss any issues or upcoming reporting requirements. The City of San Pablo has developed policies and procedures for the complete efficient and effective delivery of grant projects. These policies and procedures include the development of extensive checklists, delivery milestones, project schedules, contracting requirements and more. For the Regional Alternative Compliance for a Sustainable Bay Project, the Senior Management Analyst will be dedicated to ensure all reporting requirements are met within the desired timeframe. This Senior Management Analyst will work with the departments Management Analyst, project partners and the consultants to ensure reports are complete and accurate.

10. Partnerships

A successful process for building and operating an alternative compliance/water quality trading system programs largely depends on the right stakeholders fulfilling the right roles, and on cultivating trading champions during the process. Therefore, the project has already:

- Identified three cities that will champion the development of the program and pilot the system during the pilot phase (San Pablo, Richmond & Walnut Creek);
- Engaged with Water Board staff whom have shown support for the project and will provide staff for the Advisory Committee;
- Partnered with SFEI for technical expertise and the development of a tracking system; and
- Contacted cities in the Bay Area to enlist participation in the Advisory Committee.

10.A Steering Committee

The following cities have been identified as project partners and Steering Committee Members. These cities were identified because they each provide a specific required aspect needed to pilot a new System. San Pablo and Richmond are both identified as disadvantaged communities with areas of high PCB pollutant loads. However, each of these communities have limited funds to implement GI to achieve pollutant reductions, therefore these communities have been identified as potential project recipients. The City of Walnut Creek has very few areas of old industrial land use but has a vast amount of development occurring in the downtown area with limited space. Therefore, Walnut Creek has been identified as an entity that may sponsor a project or allow a developer to pay for a project in a different jurisdiction. As the project moves forward if additional interested cities volunteer to be project recipients or project sponsors the Steering Committee will have up to four (4) cities.

City of San Pablo- The City of San Pablo has volunteered to be on the Steering Committee and will be providing up to \$100,000 in in-kind match and staff hours to the project. San Pablo's match will be used to advance the design of their pilot project so that an accurate cost for the project can be used when piloting the System. San Pablo will be the lead for the grant.

City of Walnut Creek- The City of Walnut Creek has volunteered to be on the Steering Committee and will be providing up to \$100,000 in in-kind cash match and staff hours to the project. In addition, Walnut Creek will be working with the potential developers in their jurisdiction that are willing to provide funding for pilot projects.

City of Richmond- The City of Richmond has volunteered to be on the Steering Committee and will be providing up to \$100,000 of in-kind match and staff hours to the project. Richmond's match will be used to advance the design of their pilot project so that an accurate cost for the project can be used when piloting the System.

10.B Technical Project Partner

SFEI- SFEI will be on the Advisory Committee and will be using their Green Plan-IT tool to develop a Pilot Tracking System and provide \$40,000 in in-kind match from the OPC-funded stormwater project.


10.C Other Project Participants

In addition to the above listed project partners, the following organizations have agreed to participate on the Advisory Committee (providing in-kind staff hours) to learn and provide input on the proposed System. Each of these entities have expressed interest in using a water quality trading system in the future.

- | | | |
|-----------------------------|------------------------------|---------------------------------|
| • City of Oakland | • Contra Costa County Clean | • San Francisco Estuary |
| • City of San Jose | Water Program | Partnership |
| • City of Pittsburg | • Napa Countywide | • San Pablo and Wildcat Creek |
| • City of Dublin | Stormwater Pollution | Watershed Council |
| • Contra Costa County | Prevention Program (NCSPPP) | • California Department of Fish |
| • Port of Oakland | • San Francisco Bay Regional | and Wildlife |
| • Contra Costa County Flood | Water Quality Control Board | |
| Control District | | |

While the above organizations have identified their specific desire to be involved, the Project Team will continue to reach out to stakeholders in the Bay Area for a diverse group of involvement in the development of this regional program.

Attachment 3 - EPA Notice of Award

	U.S. ENVIRONMENTAL PROTECTION AGENCY Grant Agreement		GRANT NUMBER (FAIN): 99T87201	DATE OF AWARD 07/12/2019	
			MODIFICATION NUMBER: 0 PROGRAM CODE: W9		
			TYPE OF ACTION New		MAILING DATE 07/19/2019
			PAYMENT METHOD: ASAP		ACH# 90655
RECIPIENT TYPE: Municipal			Send Payment Request to: Las Vegas Finance Center email: lvfc-grants@epa.gov		
RECIPIENT: City of San Pablo 13831 San Pablo Ave., Bldg. 3 San Pablo, CA 94806 EIN: 94-6000423			PAYEE: City of San Pablo 13831 San Pablo Ave., Bldg. 3 San Pablo, CA 94806		
PROJECT MANAGER Amanda Booth 13831 San Pablo Ave., Bldg. 3 San Pablo, CA 94806 E-Mail: amandab@sanpabloca.gov Phone: 510-215-3066		EPA PROJECT OFFICER Luisa Valiela 75 Hawthorne Street, WTR-3 San Francisco, CA 94105 E-Mail: Valiela.Luisa@epa.gov Phone: 415-972-3400		EPA GRANT SPECIALIST Danielle Carr Grants Branch, MSD-6 E-Mail: carr.danielle@epa.gov Phone: 415-972-3871	
PROJECT TITLE AND DESCRIPTION SAN FRANCISCO BAY AREA WATER QUALITY IMPROVEMENT FUND This grant to the City of San Pablo, to lead an effort to establish a regional stormwater water quality trading and banking system will improve San Francisco Bay by reducing polychlorinated biphenyl (PCB) loading. A water quality trading system will more efficiently and affordably improve water quality, reduce compliance pressures on permittees, and decrease overall costs of water quality improvements through green infrastructure. The projects supported through the trading system will reduce PCBs reaching San Francisco Bay and help cities meet mandated Total Maximum Daily Loads and the Municipal Regional Permit requirements. This project implements water quality actions listed under the San Francisco Estuary Partnership's Comprehensive Conservation and Management Plan (SFEP CCMP). The project goals and activities will benefit the fish, wildlife, and humans that depend on a thriving, healthy San Francisco Bay. This assistance Agreement provides full federal funding in the amount of \$680,000.					
BUDGET PERIOD 08/01/2019 - 06/30/2022	PROJECT PERIOD 08/01/2019 - 06/30/2022	TOTAL BUDGET PERIOD COST \$1,360,000.00	TOTAL PROJECT PERIOD COST \$1,360,000.00		
NOTICE OF AWARD					
Based on your Application dated 12/04/2018 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards \$680,000. EPA agrees to cost-share 50.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$680,000. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.					
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)		AWARD APPROVAL OFFICE			
ORGANIZATION / ADDRESS U.S. EPA, Region 9 Grants Branch, MSD-6 75 Hawthorne Street San Francisco, CA 94105		ORGANIZATION / ADDRESS U.S. EPA, Region 9 Water Division, WTR-1 75 Hawthorne Street San Francisco, CA 94105			
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY					
Digital signature applied by EPA Award Official Carolyn Truong - Grants Management Officer				DATE 07/12/2019	

EPA Funding Information

W9 - 99T87201 - 0 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$	\$ 680,000	\$ 680,000
EPA In-Kind Amount	\$	\$	\$ 0
Unexpended Prior Year Balance	\$	\$	\$ 0
Other Federal Funds	\$	\$	\$ 0
Recipient Contribution	\$	\$ 55,000	\$ 55,000
State Contribution	\$	\$	\$ 0
Local Contribution	\$	\$	\$ 0
Other Contribution	\$	\$ 625,000	\$ 625,000
Allowable Project Cost	\$ 0	\$ 1,360,000	\$ 1,360,000

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.126 - San Francisco Bay Water Quality Improvement Fund	Clean Water Act: Sec. 320	2 CFR 200 2 CFR 1500 and 40 CFR 33

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	1909W32014	1920	B	09L2	000BK4	4158	-	-	680,000
									680,000

Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	\$91,788
2. Fringe Benefits	\$30,212
3. Travel	\$0
4. Equipment	\$0
5. Supplies	\$0
6. Contractual	\$1,238,000
7. Construction	\$0
8. Other	\$0
9. Total Direct Charges	\$1,360,000
10. Indirect Costs: % Base	\$0
11. Total (Share: Recipient 50.00 % Federal 50.00 %.)	\$1,360,000
12. Total Approved Assistance Amount	\$680,000
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$680,000
15. Total EPA Amount Awarded To Date	\$680,000

Administrative Conditions

General Terms and Conditions

The recipient agrees to comply with the current EPA general terms and conditions available at: <https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2018>

These terms and conditions are in addition to the assurances and certifications made as a part of the award and the terms, conditions, or restrictions cited throughout the award.

The EPA repository for the general terms and conditions by year can be found at <https://www.epa.gov/grants/grant-terms-and-conditions#general>

A. Federal Financial Reporting (FFR)

For awards with cumulative project and budget periods greater than 12 months, the recipient will submit an annual FFR (SF 425) covering the period from "project/budget period start date" to **September 30** of each calendar year to the U.S. EPA Las Vegas Finance Center (LVFC). The FFR will be submitted electronically to lvfc-grants@epa.gov no later than **December 30** of the same calendar year. The form with instructions can be found on LVFC's website at <https://www.epa.gov/financial/grants>.

B. Procurement

The recipient will ensure all procurement transactions will be conducted in a manner providing full and open competition consistent with 2 CFR Part 200.319. In accordance 2 CFR Part 200.323 the grantee and subgrantee(s) must perform a cost or price analysis in connection with applicable procurement actions, including contract modifications.

State recipients must follow procurement procedures as outlined in 2 CFR Part 200.317.

C. Six Good Faith Efforts 40 CFR Part 33, Subpart C

Pursuant to 40 CFR Section 33.301, the recipient agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to require that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:

- (a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- (b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- (c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- (d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
- (e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- (f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

D. Utilization of Disadvantaged Business Enterprises

General Compliance, 40 CFR Part 33

The recipient agrees to comply with the requirements of EPA's Disadvantaged Business Enterprise (DBE)

Program for procurement activities under assistance agreements, contained in 40 CFR Part 33.

Fair Share Objectives, 40 CFR Part 33, Subpart D

A recipient must negotiate with the appropriate EPA award official, or his/her designee, fair share objectives for MBE and WBE participation in procurement under the financial assistance agreements.

In accordance with 40 CFR Section 33.411 some recipients may be exempt from the fair share objective requirements as described in 40 CFR Part 33, Subpart D. Recipients should work with their DBE coordinator if they think their organization may qualify for an exemption.

The dollar amount of this assistance agreement, or the total dollar amount of all of the recipient's financial assistance agreements in the current federal fiscal year from EPA, exceeds the Simplified Acquisition Threshold as defined by the Federal Acquisition Regulation. The recipient accepts the applicable MBE/WBE fair share objectives/goals negotiated with EPA by the California State Water Resources Control Board (CSWRCB), as follows:

	MBE	WBE
Construction	1%	1%
Equipment	2%	1%
Services	1%	1%
Supplies	2%	1%

The recipient accepts the fair share objectives/goals stated above and attests to the fact that it is purchasing the same or similar construction, supplies, services and equipment, in the same or similar relevant geographic buying market as CSWRCB.

Negotiating Fair Share Objectives/Goals, Section 33.404

The recipient has the option to negotiate its own MBE/WBE fair share objectives/goals. If the recipient wishes to negotiate its own MBE/WBE fair share objectives/goals, the recipient agrees to submit proposed MBE/WBE objectives/goals based on an availability analysis, or disparity study, of qualified MBEs and WBEs in their relevant geographic buying market for construction, services, supplies and equipment.

The submission of proposed fair share goals with the supporting analysis or disparity study means that the recipient is **not** accepting the fair share objectives/goals of another recipient. The recipient agrees to submit proposed fair share objectives/goals, together with the supporting availability analysis or disparity study, to the Regional MBE/WBE Coordinator, Elizabeth Armour at Armour.Elizabeth@epa.gov, within 120 days of its acceptance of the financial assistance award. EPA will respond to the proposed fair share objective/goals within 30 days of receiving the submission. If proposed fair share objective/goals are not received within the 120-day time frame, the recipient may not expend its EPA funds for procurements until the proposed fair share objective/goals are submitted.

Contract Administration Provisions, 40 CFR Section 33.302

The recipient agrees to comply with the contract administration provisions of 40 CFR Section 33.302.

Bidders List, 40 CFR Section 33.501(b) and (c)

Recipients of a Continuing Environmental Program Grant or other annual reporting grant, agree to create and maintain a bidders list. Recipients of an EPA financial assistance agreement to capitalize a revolving loan fund also agree to require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements. Please see 40 CFR Section 33.501 (b) and (c) for specific requirements and exemptions.

E. MBE/WBE Reporting

General Compliance, 40 CFR Part 33, Subpart E - Reporting Condition

MBE/WBE reporting is required in annual reports for assistance agreements where there are funds budgeted for procuring construction, equipment, services and supplies, including funds budgeted for direct procurement by the recipient or procurement under sub-awards or loans in the "Other" category that exceed the Simplified Acquisition Threshold as defined by the Federal Acquisition Regulation, including amendments and/or modifications.

Based on EPA's review of the planned budget, this award has the potential to meet the conditions above

and may be subject to the Disadvantaged Business Enterprise (DBE) Program reporting requirements. While the recipient's direct procurement budget is less than the Simplified Acquisition Threshold, procurement within the planned sub-awards included in the "other" category may cause the threshold to be exceeded. Since it is unclear at the time of this award whether funds budgeted in the "other" category triggers reporting, the recipient must make reporting a requirement of all sub-awards/loans and use these reports to determine whether recipient reporting is necessary. If cumulative funds budgeted or expended during the period of the agreement exceed the Simplified Acquisition Threshold amount, the recipient is required to submit a "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements and Interagency Agreements" report (EPA Form 5700-52A) on an annual basis. All procurement actions are reportable, not just that portion that exceeds the Simplified Acquisition Threshold amount.

If the recipient believes this award does not meet these conditions, it must provide GrantsRegion9@epa.gov and the assigned grants specialist with a justification and budget detail within 21 days of the award date clearly demonstrating that, based on the planned budget, this award is not subject to the DBE reporting requirements.

When completing the annual report, recipients are instructed to check the box titled "annual" in section 1B of the form. For the final report, recipients are instructed to check the box indicated for the "last report" of the project in section 1B of the form. Annual reports are due by October 30th of each year. Final reports are due by October 30th or 90 days after the end of the project period, whichever comes first.

The reporting requirement is based on total procurements. Recipients with expended and/or budgeted funds for procurement are required to report annually whether the planned procurements take place during the reporting period or not. If no budgeted procurements take place during the reporting period, the recipient should check the box in section 5B when completing the form.

MBE/WBE reports should be sent to GrantsRegion9@epa.gov and the assigned grants specialist. The current EPA Form 5700-52A is located at <https://www.epa.gov/grants/epa-form-5700-52a-united-states-environmental-protection-agency-minority-business>.

This provision represents an approved deviation from the MBE/WBE reporting requirements as described in 2 CFR, Part 33, Section 33.502; however, the other requirements outlined in 40 CFR Part 33 remain in effect, including the Good Faith Effort requirements as described in 2 CFR Part 33 Subpart C, and Fair Share Objectives negotiation as described in 40 CFR Part 33 Subpart D.

F. Indirect Costs

The Cost Principles under 2 CFR Part 200, Subpart E apply to this award. Since there are no indirect costs included in the assistance budget, they are not allowable under this Assistance Agreement.

G. Non-Federal Third-Party Contributions

This award includes \$625,000 of estimated non-federal third party contributions. Third party contributions counting towards satisfying a cost sharing or matching requirement must be verifiable from the records of grantees and subgrantees. As applicable, these records must reflect how the value is placed on third party contributions. The value of third party contributions must be applicable to the period to which the cost sharing or matching requirement apply (2 CFR Part 200.306).

Programmatic Conditions

a.] Reporting

The recipient shall submit quarterly progress reports to the EPA Project Officer within 30 calendar days after the end of each Federal fiscal quarter (January 31, April 30, July 31, and October 31). The progress reports should include:

- a discussion of the activities conducted during the two quarters (including a comparison of actual accomplishments with the anticipated outputs and outcomes specified in the workplan),
- progress towards milestones,
- problems encountered with achieving outputs and outcomes, and their resolution,
- activities planned for the next two quarters,
- a financial accounting of costs incurred during the reporting period,
- cumulative project costs (EPA and match amounts) since the beginning of the project, by task, and
- identification of any special EPA assistance needed, and an explanation of any cost overruns. The

recipient will notify the EPA Project Officer if something materially impairs their ability to complete the tasks and deliver the products, outputs and outcomes identified in the workplan.

Within 90 days of the end of the project period, the recipient must submit 1 hardcopy of the final report, documenting project activities over the entire project period and the recipient's achievements with respect to the project's purposes and objectives. The final report must also be submitted electronically (by Email) to the EPA Project Officer.

b.] Subward Reporting

The recipient must report on its subaward monitoring activities under 2 CFR 200.331(d). Examples of items that must be reported if the pass-through entity has the information available are:

1. Summaries of results of reviews of financial and programmatic reports.
2. Summaries of findings from site visits and/or desk reviews to ensure effective subrecipient performance.
3. Environmental results the subrecipient achieved.
4. Summaries of audit findings and related pass-through entity management decisions.
5. Actions the pass-through entity has taken to correct deficiencies such as those specified at 2 CFR 200.331(e), 2 CFR 200.207 and the 2 CFR Part 200.338 Remedies for Noncompliance.

c.] Grant Source Recognition

The recipient should publicly acknowledge the US EPA San Francisco Bay Water Quality Improvement Fund as the funding vehicle for the projects when the grantee is asked by public entities, federal agencies or state and local agencies about the projects and on-going results.

d.] Lab Competency - ensuring Competency of Organizations Generating Environmental Measurement Data

Following EPA Policy Directive Number FEM-2012-02, recipient agrees to demonstrate competency of any laboratory carrying out any activities involving the generation of environmental data on its behalf. Laboratory competency shall be maintained for the duration of the project period of this agreement and documented during the annual reporting process. A copy of the Policy is available online at <https://www.epa.gov/measurements>.

e.] Cybersecurity

(a) The recipient agrees that when collecting and managing environmental data under this assistance agreement, it will protect the data by following all State or Tribal law cybersecurity requirements as applicable.

(b)(1) EPA must ensure that any connections between the recipient's network or information system and EPA networks used by the recipient to transfer data under this agreement, are secure. For purposes of this Section, a connection is defined as a dedicated persistent interface between an Agency IT system and an external IT system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition.

If the recipient's connections as defined above do not go through the Environmental Information Exchange Network or EPA's Central Data Exchange, the recipient agrees to contact the EPA Project Officer (PO) no later than 90 days after the date of this award and work with the designated Regional/Headquarters Information Security Officer to ensure that the connections meet EPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the recipient into systems operated and used by EPA's regulatory programs for the submission of reporting and/or compliance data.

(b)(2) The recipient agrees that any subawards it makes under this agreement will require the subrecipient to comply with the requirements in (b)(1) if the subrecipient's network or information system is connected to EPA networks to transfer data to the Agency using systems other than the Environmental Information Exchange Network or EPA's Central Data Exchange. The recipient will be in compliance with this condition: by including this requirement in subaward agreements; and during subrecipient monitoring deemed necessary by the recipient under 2 CFR 200.331(d), by inquiring whether the subrecipient has contacted the EPA Project Officer. Nothing in this condition requires the recipient to contact the EPA Project Officer on behalf of a subrecipient or to be involved in the negotiation of an Interconnection Service Agreement between the subrecipient and EPA.

***** END OF AWARD DOCUMENT *****

Attachment 4 - Template Quarterly Report

CITY OF SAN PABLO ALTERNATIVE COMPLIANCE FOR A SUSTAINABLE BAY PROJECT

QUARTERLY PROGRESS REPORT NO. XX (MMM/YY – MMM/YY)

EPA Project Period: 08/01/2019 - 06/30/2022
Grant Recipient: City of San Pablo
Assistance ID Number: W9 - 99T87201 - 0
Submitted by: Amanda Booth
Environmental Program Analyst
City of San Pablo
510-215-3066
amandab@sanpabloca.gov

PROGRESS REPORT HIGHLIGHTS

- List quarterly highlights here.
- XXXXX
- XXXX

ORIENTATION MEETINGS, TASK 1.1,

The Project Team will have 1-3 kick-off and orientation meetings. These meetings will ensure there is clear understanding of the background and ultimate end goals for the project. These meetings will also establish some of the aspects or questions that will need to be answered to develop The System. The Project Team will research other systems around the country to present at a workshop for all project committees. Results of these meetings will be reported to the EPA in the Quarterly Reports.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 1.1 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter regarding Task 1.1 here.

ADVISORY WORKSHOPS, TASK 1.2

As part of the project kick-off, the Steering Committee will host all other participants in one or two workshops to review example systems around the country and discuss the various questions/aspects that will need to be resolved to develop a system in the Bay Area.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 1.2 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter for Task 1.2 here.

Task/Sub-Task	Timeline	Comments	Percent Complete
1.1	Fall 2019 – Jan. 2020	No Comments. This item may expand to February of 2020.	0%
1.2	Fall 2019 – Fall 2021	No Comments.	0%

SYSTEM DEVELOPMENT, TASK 2.1

After understanding the questions, parameters and concerns regarding a regional alternative compliance and banking/trading system the Project Team will meet to develop the specifics of The System. At various key points, the Steering Committee will present the progress to the Advisory Committee to obtain feedback. The team will then refine the program further. This will be a continual iterative process until the basis for the system is developed.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 2.1 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter for Task 2.1 here.

Task/Sub-Task	Timeline	Comments	Percent Complete
2.1	Jan. 2020 – Dec. 2021	No Comments.	0%

TRACKING SYSTEM, TASK 3.1

This project will work with San Francisco Estuary Institute (SFEI) to develop a pilot online tracking system through the SFEI GreenPlan-IT Tracker.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 3.1 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter for Task 3.1 here.

PILOT OF TRACKING SYSTEM, TASK 3.2

The project(s) that are piloted through this grant will use the developed tracking system and provide comments for improvements.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 3.2 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter for Task 3.2 here.

Task/Sub-Task	Timeline	Comments	Percent Complete
3.1	Jan. 2020 – Dec. 2021	No Comments.	0%
3.2	Oct. 2021 – Jun. 2022	No Comments.	0%

PILOT PROJECTS, TASK 4

During the development of the scope and template documents, members of the Steering Committee will identify developers and other organizations that will be used to pilot the new System. Once The System is in place, these cities will implement pilot project(s) using all materials that have been developed and provide feedback regarding any issues. This grant will pilot a minimum of one project through the developed System.

ACTIVITIES & ACCOMPLISHMENTS:

Describe all activities and accomplishments achieved this quarter for Task 4 here.

DIFFICULTIES AND RESOLUTIONS:

Describe any difficulties and/or resolutions encountered this quarter for Task 4 here.

Task/Sub-Task	Timeline	Comments	Percent Complete
4.1	Jan. 2020 – Jun. 2022	No Comments.	0%

OUTPUTS AND OUTCOMES COMPLETED/COMMENCED

Outputs	Outcomes
Example: Quarterly Reports List any completed outputs here	List any completed outcomes here

ACTIVITIES PLANED FOR NEXT QUARTER

- XXXX
- XXXX

ATTACHMENTS

1. List any attachments here.

PROJECT COSTS

Exhibit B



PROPOSAL FOR REGIONAL COMPLIANCE FOR A SUSTAINABLE BAY

JANUARY 9, 2020

Prepared by:

Geosyntec
consultants

Prepared for:



January 9, 2020

Ms. Amanda Booth
City of San Pablo
City Clerk's Office
13831 San Pablo Ave, Bldg 1
San Pablo, CA 94806

Subject: Proposal for Regional Compliance for a Sustainable Bay

Dear Ms. Booth,

Geosyntec Consultants, Inc. (Geosyntec) and our partners Kieser & Associates, LLC, EOA, Inc., Panorama Environmental, Bespoke Mitigation Partners, and Brooks Smith of Troutman Sanders (collectively the Geosyntec Team), are pleased to submit for your consideration this proposal to provide support to the Cities of San Pablo (City), Richmond, and Walnut Creek for developing and piloting a regional alternative compliance water quality crediting/trading/banking system (WQT System) to achieve the water quality objectives of the San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP; Order No. R2-2015-0049). The Geosyntec Team will combine our deep understanding of regional MRP compliance processes and challenges with a wealth of experience in developing water quality trading programs to develop a customized WQT System, using a methodical approach to address and resolve key decisions.

The WQT System should allow for efficient compliance with the MRP and be able to evolve as needed to reflect ongoing permit renewal negotiations. The Geosyntec Team has over a decade of specific, in-depth experience assisting Permittees with MRP and Total Maximum Daily Load (TMDL) compliance, as well as inside knowledge of potential changes to MRP provisions relating to GSI implementation and TMDL compliance. With this experience comes an understanding of the WQT System stakeholders, and the needed Project processes and communication that will allow for consensus-driven System development.

The Geosyntec Team provides substantial expertise in the area of stormwater alternative compliance and water quality trading, collectively contributing to dozens of projects developing these programs. Our Team members Kieser & Associates, a leading national expert in water quality trading, along with Clean Water Act (CWA) attorney Brooks Smith of Troutman Sanders, supported the development of the *National Network on Water Quality Trading* report referenced in the Request for Proposals. Through these partners, along with Bespoke Mitigation Partners, our team has a deeply rooted understanding of USEPA Trading Policy. Rounding out our deep bench of federal, state, and regional policy experts is Panorama Environmental, a women-owned business enterprise (WBE) firm with decades of California Environmental Quality Act (CEQA) expertise and stakeholder outreach experience. Using our extensive national water quality trading and CEQA background, combined with our unique regional policy and technical expertise, the Geosyntec Team will adeptly tailor WQT System elements to the specific needs of the San Francisco Bay MRP Permittees while incorporating long-term accountability.

The Geosyntec Team is eager to assist the City and partner jurisdictions in thoroughly exploring the key components of a WQT System. The WQT System objective will be to provide implementation flexibility for projects that cost-effectively improve water quality, achieve multiple benefits, and reduce San Francisco

Ms. Amanda Booth
January 9, 2020
Page 2

Bay Area TMDL compliance pressures for local jurisdictions. Attached to this letter is our proposal to support development of the regional WQT System. Geosyntec will conduct the work from our Oakland, California office. Please contact Lisa Austin, Project Director, at (510) 285-2757, or Kelly Havens, Project Manager, at (510) 285-2720, at your convenience should you have any questions.

Sincerely,



Ken Susilo, PE (CA), D.WRE, ENV SP
Senior Principal and Vice President
KSusilo@geosyntec.com



Lisa Austin, PE (CA and WA)
Principal
LAustin@geosyntec.com

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2. ORGANIZATION CHART / PERSONNEL

Note: All Professional Licenses are registered in the State of California except where noted.



CITY OF SAN PABLO
City of New Directions

Client Lead

Amanda Booth

Project Director

Lisa Austin¹, PE

Project Manager

Kelly Havens¹, PE

Sr. Technical Advisor

Ken Susilo¹, PE, D.WRE

Task A/B: Meetings

Kelly Havens¹, PE

Mark Kieser²

Jill Bicknell, PE⁴

Tech Advisors to participate as applicable

Task C: Literature Review

Mark Kieser²

Maxwell Dugan¹, PE

David Chen²

Task D: Workshops

Tania Treis³

Mark Kieser²

Nicholas Dewar (Facilitator)³

Task E: Water Quality Trading System

Mark Kieser²

Maxwell Dugan¹, PE

Elai Fresco¹, PE

David Chen²

Lisa Sabin, D.Env⁴

Peter Schultze-Allen, RQP, LEED AP⁴

Tom Wallace¹ (WQ Trading)

George Kelly⁵ (P3/Finance)

Task F: Final Legal & Regulatory Review

Lisa Austin¹, PE

Brooks Smith (CWA)⁶

Tania Treis (CEQA)³

Task G: Final Document Review

Lisa Welsh¹, Ph.D.,

Mark Kieser²

Task H: Pilot Project Implementation

Avery Blackwell¹, PE

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Task I: Grant Reporting

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Lisa Sabin, D.Env⁴

Project Team

¹ = Geosyntec Consultants, Inc.

² = Kieser & Associates

³ = Panorama

⁴ = EOA

⁵ = Bespoke Mitigation Partners

⁶ = Troutman Sanders

Underlined Name = Task Lead

Italicized Name = Technical Advisor

3. FIRM STATEMENT OF QUALIFICATIONS

TEAM MEMBER FIRM DESCRIPTIONS

The Geosyntec Team includes Geosyntec Consultants, Inc. (Geosyntec) and our partners Kieser & Associates, LLC (K&A), EOA, Inc., Panorama Environmental, Bespoke Mitigation Partners (BMP), and Troutman Sanders. Descriptions of each firm are provided below.



Geosyntec Consultants, Inc. (Geosyntec) founded in 1983, is a multidisciplinary engineering and consulting firm with 1,200 employees in over 80 offices worldwide. Geosyntec works with public and private sector clients to address complex problems involving the environment, natural resources, and civil infrastructure. Geosyntec is a national leader in green stormwater infrastructure (GSI) and other stormwater control measures and has extensive experience helping local municipalities utilize GSI for compliance with water quality regulations. We develop costs and detailed designs for GSI plans for public and private clients, utilizing our experience developing over seven stormwater best management practice technical manuals in California.

Geosyntec's local resources include more than 90 staff in our three San Francisco Bay Area offices (Oakland, San Francisco, and Walnut Creek), with nine water resources engineers and scientists in our Oakland office available to serve the City of San Pablo (City) and partner jurisdictions. Our Oakland water resources group frequently assists the Bay Area Stormwater Management Agencies Association (BASMAA) and municipal stormwater management programs, including the Contra Costa Clean Water Program (CCCWP) and the Alameda Countywide Clean Water Program (ACCWP) in implementing technical studies required by the San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP; Order No. R2-2015-0049). Geosyntec has served as CCCWP's technical support consultant for polychlorinated biphenyls (PCBs) and mercury total maximum daily load (TMDL) implementation planning since 2014. Our California Water Resources Branch offices include 53 water resources professionals available to serve the City, including an engineering group that is dedicated to GSI design and design/build services.



Kieser & Associates, LLC (K&A), located in Kalamazoo, Michigan, has provided scientific research and environmental consulting services to county, state and federal agencies, municipalities, industry, commercial businesses, legal counsel and private clients throughout the U.S. and internationally since 1992. K&A has been on the cutting edge of market-based environmental program development for water resources since 1995. They have worked on water quality trading (WQT) program development from the east to west coasts of the United States. In California, K&A provided WQT expertise for the Lake Tahoe crediting program from its inception to final framework development to help MS4s achieve compliance towards the Lake Clarity TMDL. K&A also supported PacifiCorp in early framing discussions of the Water Quality Accounting Framework in the Upper Klamath River. K&A represented the City of Santa Rosa for developing protocols and crediting applications for non-point source reduction projects to offset nutrient discharges to the Laguna de Santa Rosa. This effort expanded to developing what is now the North Coast Regional Water Quality Board's formally adopted WQT framework. Most recently, K&A led the technical development of a performance-based, market-like program for farmers in the San Jacinto Reservoir in Southern California to meet Lake Elsinore TMDL goals. As such, the firm brings specific and unparalleled qualifications with WQT to the Geosyntec Team.



EOA, Inc. (EOA) is a multi-disciplinary engineering consulting firm providing a broad range of environmental and regulatory compliance services in the Bay Area. EOA specializes in assisting municipalities across the Bay Area as well as the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) with stormwater NPDES permit compliance and developing and implementing stormwater management programs, including GSI planning, trash management, crediting and tracking systems, funding assistance, training, outreach, monitoring, and reporting. EOA is a leader in the Bay Area on low impact development (LID) and GSI planning and implementation. They are leading negotiations with regulators on future requirements for GSI and alternative compliance in the MRP negotiations. EOA coordinated the implementation of an alternative compliance plan for a private developer and the City of Emeryville. EOA and Geosyntec developed the BASMAA agency accounting methodologies used to document load reductions for mercury and PCBs TMDLs. EOA also has experience with management of grant-funded projects in the San Francisco Bay Area.



Panorama Environmental (Panorama) is a small environmental consulting firm based in San Francisco, California that specializes in California Environmental Quality Act (CEQA) and National Environmental Policy Act compliance. A women-owned business enterprise (WBE) firm, Panorama brings more than 30 years of experience conducting multi-disciplinary environmental impact analysis for infrastructure, natural resources, water, energy, and urban planning projects. Panorama provides support for broad stakeholder outreach efforts and provides meeting facilitation and support services throughout the San Francisco Bay Area.



Bespoke Mitigation Partners (BMP) is focused on customized advisory and development services for eco-asset solutions for both public and private sector clientele. BMP is a leader in developing policy and projects in wetland, stream, and species mitigation, WQT, and performance-based stormwater solutions. Through this experience, BMP has developed a unique expertise in understanding the issues and delivering viable cost-effective projects in this complex context. George Kelly of BMP has worked closely with regulators on WQT program development in the Chesapeake Bay and East Coast for more than a decade.



Troutman Sanders¹ law firm's Environmental and Natural Resources practice attorneys have handled matters in all 50 states with experience that encompasses all aspects of federal, state and local environmental law. Geosyntec and Troutman Sanders enjoy a mutually beneficial relationship. Geosyntec often hires Troutman Sanders to address its own legal needs and Troutman Sanders frequently hires Geosyntec to advise on matters for their clients. Brooks Smith (a Virginia licensed attorney) is an environmental and natural resources partner at Troutman Sanders and managing partner of the firm's Richmond, Virginia office. Brooks was recognized as one of the country's 50 *Energy & Environmental Trailblazers* by the National Law Journal in 2015. Brooks has written and spoken extensively on developments arising under the CWA and other environmental laws. For the past 20 years, Brooks has been involved in one of the most intractable PCBs impairments in the country, advising on the water quality aspects of restoration efforts in the Housatonic River in Pittsfield, Massachusetts. Brooks also helped establish the National Water Quality Trading Alliance to provide a more effective platform for advocacy from coast to coast stemming from

¹ Constraints related to subcontracting legal services are outlined in Section 11 of this proposal.

his decade-plus WQT experience across the U.S.

TEAM TECHNICAL QUALIFICATIONS

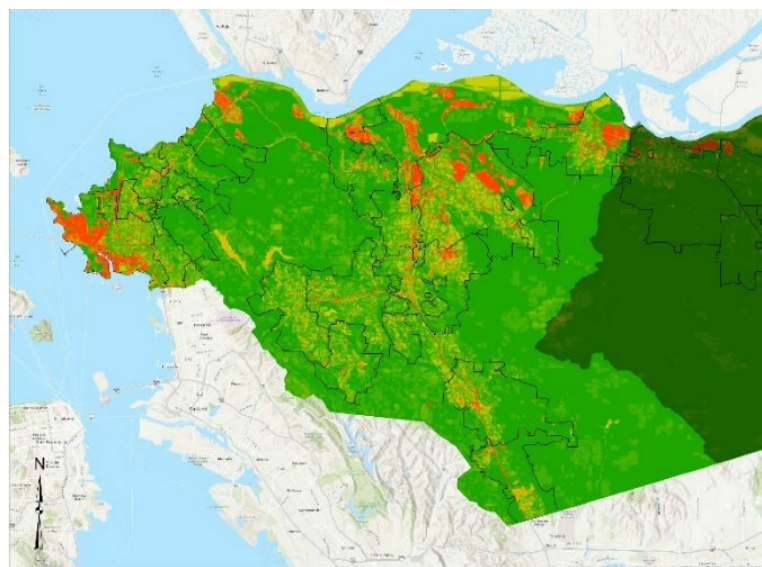
The project entails assisting the Cities of San Pablo (City), Richmond, and Walnut Creek in developing and piloting a regional alternative compliance water quality crediting/trading/banking system (WQT System). The major relevant areas of expertise and experience for successfully completing this project include: experience with developing alternative compliance and water quality crediting/trading/banking systems or in-lieu fees; an understanding of the evolving MRP requirements related to GSI and PCBs and mercury TMDL compliance; experience executing projects of this type, size, timeline, and grant requirements; the ability to meet grant-mandated project and financial reporting requirements, including tracking multiple funding sources; and being able to work collaboratively on interdisciplinary teams of consultants, municipal staff, and state and federal regulators. The Geosyntec Team provides all this expertise and experience, as described below.

Knowledge of Local, State and Federal Water Quality Regulations

The City, Richmond, and Walnut Creek, along with 76 other Permittees under the MRP, are subject to provisions pertaining to implementation and planning of GSI, and for all but East Contra Costa County permittees, compliance with San Francisco Bay PCBs and mercury TMDLs. The current MRP has numeric load reduction requirements for PCBs and mercury, and a portion of that load reduction is required to be achieved through implementation of GSI.

A primary objective for the WQT System is to allow more efficient compliance with MRP requirements for GSI implementation and TMDL compliance. The Geosyntec Team has specific, in-depth experience assisting countywide stormwater programs and Permittees with MRP compliance for PCBs and mercury TMDL implementation. Our Team members are intricately involved with the ongoing MRP renewal negotiations with the San Francisco Regional Water Board. Facilitators of both the MRP 3 Provision C.3/GSI Workgroup (Jill Bicknell of EOA) and the MRP 3 Provision C.11/C.12 (i.e., Mercury and PCBs TMDLs) Provisions Workgroup (Lisa Austin and Kelly Havens of Geosyntec) would be participating in the project, as shown in the Geosyntec Team Organizational Chart.

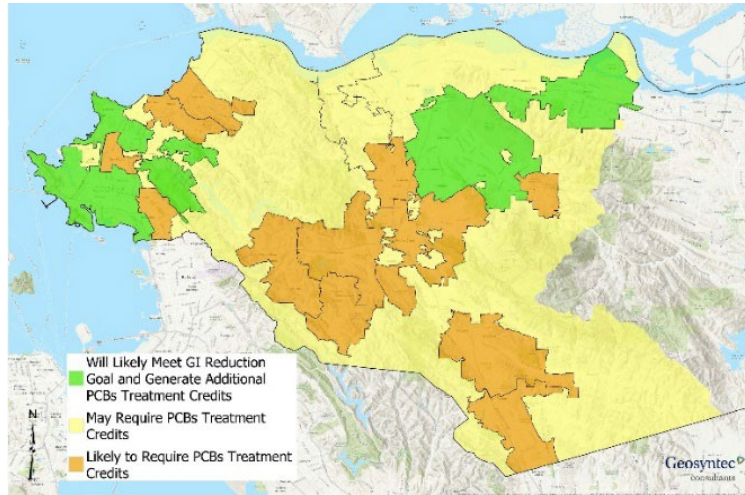
Geosyntec prepared a draft reasonable assurance analysis (RAA) for Contra Costa County demonstrating that many municipalities within Contra Costa are unable to achieve their required load reduction via GSI, which is distributed based on population. This relates primarily to Bay Area research demonstrating that PCBs load is strongly associated with specific land use types (e.g., see SFEI Contribution No. 773, Sources, Pathways and Loadings: Multi-Year Synthesis with a Focus on PCBs and Hg); in this case, “Old Industrial” or pre-1980 industrial land uses. Old Industrial land use area, however, is not distributed



Distribution of PCBs Load per Preliminary RAA

proportionally to population across the MRP jurisdictional areas. Based on the preliminary RAA results, PCBs load is concentrated in just a few jurisdictions in Contra Costa County, as shown.

Many municipalities do not have enough pollutant load within their publicly owned retrofittable areas to achieve PCBs load reductions through a reasonable number of public retrofit GSI projects. Additionally, on a per-acre basis, some municipalities could reduce PCBs loads through GSI much more efficiently than others due to the concentration of Old Industrial or



Potential Distribution of PCBs Load Reduction Credits

PCBs source land use areas. The MRP requires Permittees to submit GSI Plans, which are intended to serve as an implementation guide and reporting tool to provide reasonable assurance that urban runoff TMDL wasteload allocations will be met (through implementation of GSI) and provide a mechanism to establish and implement alternative or in-lieu compliance options for Regulated Projects. The Permittees within the CCCWP described the challenge with PCBs load distribution, and therefore reduction opportunity, in the Countywide Attainment Strategy drafted by Geosyntec and included in each

GSI Plan.

Currently, the MRP requires that new and redevelopment projects as defined under Provision C.3.b (Regulated Projects) implement LID practices, including stormwater treatment systems sized per the Provision C.3.d numeric sizing criteria. Permittees may allow Regulated Projects to provide alternative compliance through Provision C.3.e if they are unable to size their on-site stormwater treatment systems to meet the numeric sizing criteria. This provision can be used to develop and implement a regional alternative compliance water quality crediting/trading/banking system (i.e., WQT System).

Geosyntec Teaming partners K&A, BMP, and Brooks Smith of Troutman Sanders have substantial expertise in federal requirements for WQT Systems. From a federal perspective, alternative compliance methods that would be defined under *United States Environmental Protection Agency (USEPA) 2003 Water Quality Trading Policy* will have to consider USEPA's limited support for pilot trades of persistent bioaccumulative toxics (PBTs).² Though the originally envisioned timeframe for such pilots was within a few years of the 2003 policy, only the 2004 Sacramento Regional County Sanitation District's "Be Mercury Free" offset program was proposed to USEPA under this limitation.³ USEPA expressed interest in piloting trades for non-point sources of toxics where trading could achieve substantial pollutant reductions, while not creating pollutant hot spots where concentrations might exceed aquatic life or human health

² <https://archive.epa.gov/ncer/events/calendar/archive/web/pdf/finalpolicy2003.pdf>

³ See page 322 of <https://www.cbd.int/financial/pes/usa-peswatersurvey.pdf>, "Water Quality Trading and Offset Initiatives in the U.S.: A Comprehensive Survey."

standards. PCBs and mercury in this setting would meet the non-point source load interest; capture and consolidation of these pollutants would otherwise need to consider proposed GSI controls and relevant standards. USEPA 2019 discussions on the 2003 Policy are silent on trading PBTs.⁴

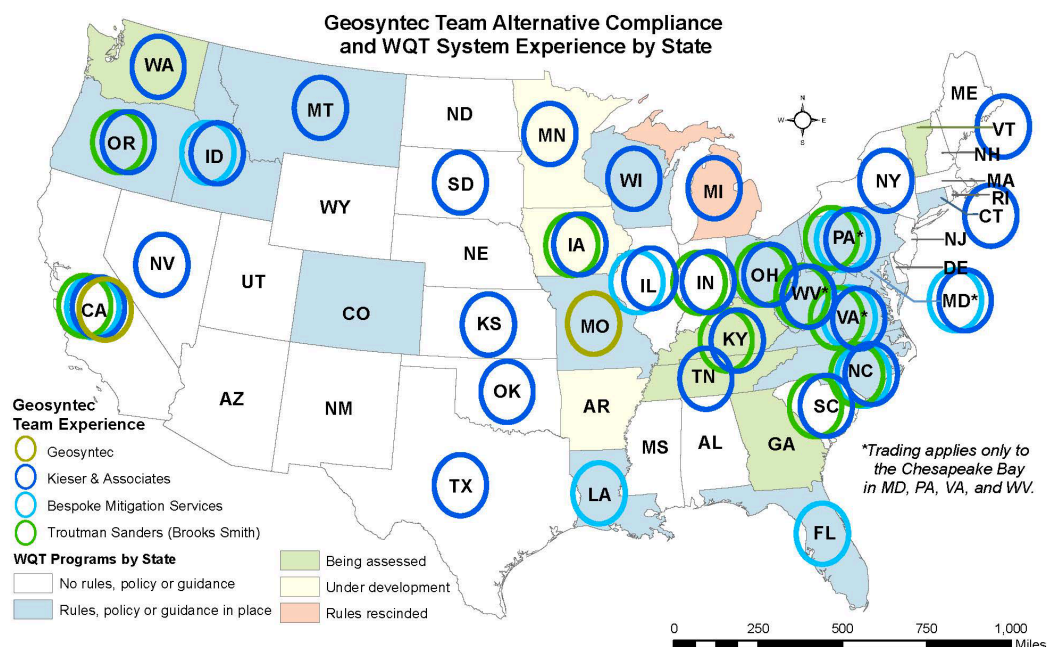
Based on Geosyntec Team experience with other WQT Systems, including the Laguna de Santa Rosa Watershed,⁵ if the WQT System implements provisions of NPDES permits, the WQT System may be statutorily exempt from CEQA, under Water Code Section 13389. However, implementation of the WQT System will likely require consideration of CEQA. To accommodate CEQA consideration needs, Geosyntec Team includes practitioners from Panorama Environmental, who bring decades of CEQA expertise to these discussions.

Experience with Similar Work: Alternative Compliance/WQT

The Geosyntec Team has collectively worked on three stormwater alternative compliance or in-lieu fee programs in the Bay Area and six in California, along with dozens of water quality crediting/trading/banking systems nationwide. The map below illustrates the quantity and coverage of experience with these programs. This experience brings a depth and breadth of knowledge of federal requirements and regulator acceptance for developing a Bay Area-specific WQT System. This will help the Team account for local complexities and Permittee requirements, while utilizing experience relating to regulator acceptance to mitigate potential legal and regulatory pitfalls in the WQT System structure. The Geosyntec Team's expertise and practical experience with various programmatic structures and pricing models will ensure a range of framework considerations will be reliably assessed.

WQT Program
Experience in

30+
States



⁴ See: <https://www.epa.gov/sites/production/files/2019-02/documents/trading-policy-memo-2019.pdf>

⁵ See: https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2018/18_0025_Laguna_WQT_Reso_lution.pdf

K&A has worked on WQT program development and assessment in 28 states of the U.S., and directly with state and regulatory agencies on the development of four regional, three state-wide and four multi-state WQT compliance programs. Associates from BMP have served on stakeholder and advisory groups in support of the Louisiana, Idaho, North Carolina, Virginia, Maryland, Pennsylvania, Washington DC, Philadelphia and San Diego WQT and offset policies for both water quality and stormwater financial, regulatory and project delivery considerations. George Kelly of BMP continues to serve as an invited member of the Nutrient Roundtable for the Federal Water Subcabinet (USDA, DOI, NOAA, DOA, DOE and USEPA). Similarly, Brooks Smith of Troutman Sanders has supported the development of WQT regulations in VA and Iowa; while Geosyntec worked with the Missouri Department of Natural Resources to develop their 2016 WQT framework.

Experience with Similar Work: Projects of Similar Size, Timeline, and Funding Requirements

The Geosyntec Team members have extensive experience executing projects of this type, size, timeline, grant-funding requirements, and level of stakeholder input. Experience with similar projects is critical to understanding and avoiding potential pitfalls to project delivery, providing succinct and clear information to stakeholders, and remaining on track with project schedule. Examples of these projects are provided in Section 10. In addition to the technical skills needed to develop the WQT System, our Team's project experience includes stakeholder outreach, meeting facilitation, advising on technical and legal topics, and public outreach and facilitation.

Grant Reporting: Meeting State and Federal Project and Financial Reporting Requirements

The Geosyntec Team has considerable experience with grant-funded projects and will use this experience to avoid grant reporting issues and delays. Team member EOA has implemented many grant-funded projects, including conducting expense/match tracking, invoicing, and progress reporting for the USEPA-funded Clean Watersheds for a Clean Bay project (CW4CB; San Francisco Bay Water Quality Improvement Fund grant) and State Water Board-funded SWRPs for Santa Clara County and the Monterey Bay Peninsula (Prop 1 Stormwater grants).

Project Delivery: Project Collaboration

Team members Geosyntec and EOA have partnered and collaborated extensively on many projects and stormwater guidance documents for BASMAA and the countywide stormwater programs over the past 15 years. As a result, the Geosyntec Team members have collaborated not only with each other, but with the expected Steering Committee and likely Advisory Committee members for this project. Example relevant projects include the CW4CB project (2011 – 2018), the Interim Accounting Methodology for TMDL Loads Reduced report (2017), the Bay Area Reasonable Assurance Analysis Guidance Document (2017), the Source Control Load Reduction Accounting for RAA report (2020), as well as regional collaborative processes including various Regional Monitoring Program committees, BASMAA Monitoring and Pollutant of Concern Committee, BASMAA Development Committee, and MRP negotiations. Geosyntec and EOA have also collaborated extensively with SFEI through these same projects and processes over the past few decades. Geosyntec Team members K&A, BMP, and Troutman Sanders collaborate frequently, along with other consultant teams in technical and/or advisory roles. Geosyntec is currently working with BMP on multiple projects in Southern California.

4. STAFF STATEMENT OF QUALIFICATIONS OR RESUMES

Please refer to Appendix A for resumes of key personnel. These resumes provide qualifications and similar or related projects each Team member has worked on.

5. PROJECT MANAGEMENT AND STAFF AVAILABILITY

PROJECT MANAGEMENT

To conduct Project Management and associated tasks, the Geosyntec Project Manager, Kelly Havens, PE, will first develop a Project Administration Plan that will identify and summarize: task leads and key personnel, scheduled internal team coordination meetings, a framework for conducting Committee meetings and additional client communication as needed, and a finalized budget with a detailed project schedule. The detailed project schedule will be shared with the Steering Committee for approval. The schedule will be updated and shared on a monthly or more frequent basis as the Project progresses.

Main Coordinator and Point of Contact

The Geosyntec Team main coordinator and point of contact for the Project will be also be Kelly Havens, PE. Kelly will apply her decade of experience conducting project and task management to effectively manage the project schedule and budget. Skilled in management of teams of staff and subconsultants, Kelly will utilize frequent e-mail and verbal communication with the Geosyntec Team to produce on-time and within-budget deliverables that are consistent with Geosyntec's Corporate Quality Management Plan (QMP). The Project Manager will use internal milestones to produce deliverables with adequate time for internal quality control and peer review process prior to submittal. Example projects for which Kelly has conducted similar scale coordination and management include the BASMAA RAA Guidance Document, BASMAA MRP 3 C.11/12 Permit Negotiations, the Monterey Peninsula SWRP, and RISE:NYC (*see resume*). Deliverable progress will be tracked using the detailed project schedule. Budget will be tracked using our project management software.

Kelly will lead the Geosyntec Team communication with the Project Point-of-Contact (POC), assumed to be the City (Amanda Booth), along with the Steering Committee, Advisory Committee, and Technical Advisory Committee, including coordinating meeting scheduling, providing deliverables for review, and tracking e-mail responses. The POC and Steering Committee are assumed to provide direction, guidance, consultation, and information about the Project and will be informed of all committee communications. Kelly is experienced in delivering technical information to permittee and stakeholder groups, including experience presenting on RAAs and TMDLs to CCCWP and ACCWP GSI and management committees.

Geosyntec Project Director, Lisa Austin, PE, will have overall supervisory responsibility for the project including achieving the project scope, schedule, and budget along with providing oversight for project-specific implementation of, and compliance with, the Quality Management Plan. Lisa has considerable experience acting as Project Director for projects of similar scale and magnitude, as well as in-depth familiarity with the MRP, PCBs management, GSI planning in the Bay Area. Lisa will participate in strategic Steering Committee, Advisory Committee, and TAC meetings.

PROJECT MANAGEMENT TOOLS

As prescribed in Geosyntec's Corporate QMP, all projects are executed with multiple levels of quality assurance/quality control including pre-project planning tools, peer review, and senior review. Subcontractors will be required to follow similar quality control practices, and all subcontractor produced deliverables will be reviewed by Geosyntec.

Geosyntec uses our project management software BST™ to track and control costs and enable timely submittal of project deliverables. The percentage of advancement of each work task, expenses against that work task, and time spent to perform the work will be prepared and reviewed by the PM on a monthly basis (or more frequently, if necessary) to determine whether the project is progressing in compliance with the pre-approved budget and schedule. Geosyntec will also prepare brief monthly reports on budget expended, remaining budget, work completed, remaining work to be completed, and any work not done (with explanation), submitted with invoices.

The Geosyntec Team has worked on several grant funded projects and is familiar with the complexity, timing constraints, and funding requirements of such projects.

STAFF AVAILABILITY

The table below lists the availability of the staff proposed in the organizational chart.

FIRM	NAME	% AVAIL
Geosyntec	Lisa Austin, PE	50%
Geosyntec	Kelly Havens, PE	50%
Geosyntec	Ken Susilo, PE, D.WRE, ENV SP	20%
Geosyntec	Lisa Welsh, PhD	50%
Geosyntec	Elai Fresco, PE	40%
Geosyntec	Avery Blackwell, PE	25%
Geosyntec	Maxwell Dugan, PE	25%
Geosyntec	Tom Wallace	10%
K&A	Mark Kieser	12%
K&A	David Chen	35%

FIRM	NAME	% AVAIL
K&A	Douglas McLaughlin, Ph.D.	5%
Panorama	Tania Treis	20%
Panorama	Nicholas Dewar	20%
EOA	Jill Bicknell	20%
EOA	Lisa D. Sabin, D. Env., M.S.	20%
EOA	Peter Schultze-Allen, RQP, LEED AP	20%
BMP	George Kelly	10%
Troutman Sanders	Brooks Smith	5%

6. PROJECT APPROACH

Within the relatively broad objectives outlined in Section 3, development of a practical and successful WQT System is anticipated to require accommodation and integration of:

- Permittee priorities for GSI implementation as described in GSI Plans;
- Numeric PCBs load reduction requirements described in MRP Provision C.12;
- Compliance with C.3.e., allowing for cross-jurisdictional trades, and defining “watershed” scale under C.3.e;
- Consideration of other Bay Area water quality priorities, including mercury load reductions (Provision C.11), trash (C.10), or other urban pollutants;
- Consideration of costs, funding, and financing needed to implement the WQT System, and institutional challenges of sharing both capital and O&M costs across multiple jurisdictions;
- Consideration of other regional needs and potential multi-benefits of GSI, such as climate change resiliency, environmental/stream restoration, and integration with other infrastructure or housing projects.

Our project approach, as described below, is directed not only towards fulfilment of the RFP requirements but addressing these key technical issues that are critical to overall project success.

OVERVIEW OF APPROACH

The notion of using water quality trading as a cost-effective CWA compliance option for regulated discharges has evolved substantially over the past 25 years. WQT program development over this time period has resulted in the rapid evolution of related market-like compliance options and alternatives that address regulatory, environmental and stakeholder concerns. The resulting optimization of the economics and effectiveness of pollution control has led to a variety of new water quality improvement approaches. These approaches have roots in tested and successful WQT program elements but move away from the traditional structures envisioned in the *2003 USEPA Trading Policy*. The Geosyntec Team approaches this Project with the view that the final “WQT System” developed will include innovations and adaptations that result in a program structure that best achieves water quality goals.

Literature Review and WQT System Components

The objective of this project is to develop a San Francisco Bay Area MRP permittee-focused WQT System Framework and associated templates that are legally valid, practical to implement, and pilot tested. Any WQT System requires development of several component parts. The Literature Review developed as part of Task C will introduce elements of the system and describe how the elements will be refined specifically for the Bay Area WQT System. A suggested outline for the Literature Review is shown to the right.

The proposed approach will entail resolving key WQT System elements soon after project initiation, allowing for a narrowed focus when considering potential systems and components that could be utilized to achieve the desired water quality objectives for the Bay Area. To accomplish this, technical advisory committee (TAC; i.e. committee(s) of technical and/or legal experts advising on specific issues and questions relevant to System development) meetings will be designed and scheduled to optimally provide actionable conclusions that will narrow the scope of the System to be developed. To enable input from stakeholders in parallel with technical insight, Advisory Committee (AC; committee of stakeholder advisors) meetings will be conducted shortly after TAC meetings to obtain stakeholder input on technical discussions. The discussions and decisions resulting from these early meetings will be used to guide the development of the Literature Review produced as part of Task C.

The Literature Review task will include the development of a cross-cut summary that identifies example programs considered to have similar characteristics, to allow for comparative analysis. The cross-cut analysis will explore a variety of programs with similar elements, to gain insight into key trading considerations for the unique contaminants of concern in San Francisco Bay.

Literature Review Outline

1. Introduction and Objective
2. Regulatory Considerations
 - 2.1. Legal Basis for Trading
 - 2.2. Trading Drivers
 - 2.3. Environmental Clearance (CEQA Considerations)
3. Market Structures
 - 3.1. WQT Compliance Programs
 - 3.2. Stormwater Offset Programs
 - 3.3. Mitigation Market Examples
 - 3.4. Performance-based Contracting
 - 3.5. Payment for Ecosystem Services
 - 3.6. One-off Market-like Transactions
4. Credits
 - 4.1. Baseline(s)
 - 4.2. Pollutants Traded
 - 4.3. Unit of Credit
 - 4.4. Credit Calculation Method
5. Practices to Achieve Credit
6. Trades
 - 6.1. Eligible Entities
 - 6.2. Eligible Trades
 - 6.3. Trade Ratios
 - 6.4. Potential Market Volume
 - 6.5. Program Restrictions/Restricted Waters
7. Risk Considerations
 - 7.1. Credit Certification
 - 7.2. Certification and Verification
 - 7.3. Monitoring and Evaluation
 - 7.4. Compliance and Enforcement
8. Tracking
9. Funding and Financing Considerations
10. Recommended Systems for Bay Area
11. Conclusions and Next Steps

Water Quality Trading Program Element	WQT Program							
	Ohio	Michigan (rescinded)	Pennsylvania	Wisconsin	Great Miami (Pilot)	Ohio River (Pilot)	South Nation	Lake Simcoe
Legal Basis for Trading Rule, Guidance or Plan	Rule	Rule	Rule	Guidance	Plan	Plan	Plan	Plan
Trading Driver <i>TMDL, Pre-TMDL, WQS/WQBELs, and/or Growth</i>	TMDL, Pre-TMDL, WQBELs	TMDL, Pre-TMDL, WQBELs	TMDL, Growth	TMDLs, WQS/WQBELs	Pending WQS/WQBELs	TMDLs; pending WQBEL	Growth	Growth
Eligible Trades <i>PS-PS, PS-NPS, and/or NPS-NPS</i>	PS-PS; PS-NPS	PS-NPS	PS-PS; PS-NPS	PS-PS; PS-NPS	PS-PS; PS-PS	PS-NPS	PS-NPS	NPS-NPS
Market Structure <i>Clearinghouse, Bilateral, or Exchange Market</i>	Bilateral or Clearinghouse	Exchange market	Clearinghouse	Bilateral or Clearinghouse	Clearinghouse	Clearinghouse	Clearinghouse	Clearinghouse
Eligible Entities <i>Agriculture, WWTP, NPDES Permittees, and Stormwater (SW)</i>	WWTPs, SW, Agriculture (including CAFOs with restrictions)	WWTPs, SW, Agriculture	Agriculture, WWTPs, SW	WWTPs, NPDES Permittees, Agriculture	Agriculture	NPDES Permittees, Agriculture	Agriculture, WWTPs	Agriculture, SW
Pollutants Traded <i>TP, TN, TSS, Other non-bioaccumulative pollutants, and/or cross pollutant trading</i>	TP, TN, TSS	TP, TN, TSS, Cross-Pollutant	TP, TN, TSS	Non-bioaccumulative pollutants, cross-pollutant trading	TP, TN	TP, TN	TP	TP
Program Restrictions/Restricted Waters <i>Upstream credits only, Downstream credits with discount factor, watershed limited, and/or limited amount of credit use</i>	Upstream, limited credit use (Director discretion)	Upstream, Downstream, limited credit use (20% for WWTPs)	Upstream, Downstream	Upstream, downstream, watershed	Upstream	Upstream Only	Watershed limited	Watershed limited
Use of Public Money <i>No restrictions on use, partial restriction, and/or all use restricted</i>	All	Partial	None	Partial restriction	All	Partial	None	Partial
Baseline Definition						Current (3-year		

Example Cross-Cut Table

Potential relevant examples of WQT and similar market-like compliance options to be reviewed by the Geosyntec Team will include a range of North American programs that focus on:

1. *Water quality trading* (e.g., Laguna de Santa Rosa, CA; Virginia; Maryland);
2. *Water quality offsets* (Lake Simcoe Phosphorus Offset Program; Lake Tahoe Crediting Program; and North Carolina Ecosystem Enhancement Program (NCEEP)/DMS Offset Program;
3. *Performance-based programs* (CA DWR marsh restoration program; Maryland Counties MS4 stormwater stream restoration program);
4. *Stormwater compliance* (Washington, D.C. Stormwater Retention Credit Trading; San Diego's Draft Off-site Stormwater Alternative Compliance; York County (PA) Regional Stormwater Authority); and
5. *Other early market-like pilots trading non-conventional pollutants* (CA Grassland Area Farmers Tradable Permit Program; Sacramento River Watershed Mercury Offset Program).

Other program options for review will be considered through initial discussions with the SC and AC.

TAC meetings that will be conducted in parallel to development of the Literature Review will present relevant sub-sections of the cross-cut analysis. The Literature Review will be used to guide the development of the WQT System.

Efficient and Actionable Design of TAC Meetings

In general, TAC and AC meeting topics and objectives must be clearly and strategically identified to enable actionable conclusions. Participants will receive adequate meeting review and preparatory material to enable informed decision making. The Geosyntec Team will guide the process such that input from the AC and TAC is constructive and considered in developing the project deliverables. The Geosyntec Team suggests the following set of meetings and topics to allow for efficient decisions regarding system development:

1. *Units of Credit and Equivalency Analysis* – Discussion of the appropriate WQT System credit metric and units (or currency) will be conducted during this TAC meeting. Credit equivalency analysis, with consideration of disparate land uses, geographic locations, and other variables, will also be covered. Consideration of current permit requirements and potential changes to permit requirements will also be considered. This TAC meeting will be

used to address the RFP-posed question: ***What is the appropriate water quality credit for the Bay Area?***

2. ***WQT System/Legal/P3 and Finance Discussion*** – This TAC meeting will introduce applicable trading systems. Legal experts will be included to discuss the legal ramifications and potential limitations of different system types. Finance experts will be included to discuss project financing, potential volume of trades, and classify eligible entities generating credits. This meeting will be used to begin to respond to the RFP-posed questions: ***How will a water quality crediting/trading/banking system in the Bay Area operate? And How does the region ensure the program is legally defensible?***

Preliminary decisions and/or tailored analyses needed to specify the components of the Bay Area WQT System, as identified through the initial TAC and AC meetings, will be included in the Literature Review conducted as part of Task C. Following completion of the Literature Review, key analyses to develop the WQT System will be conducted by the Geosyntec Team. Using our collective expertise, the Team will focus on developing credit calculation processes, credit equivalency analyses, credit generation calculations associated with different practices, geospatial analyses to define geographic system limits, cost analyses, and other assessments to inform WQT System components. These analyses will be conducted in parallel with two additional TAC meetings that will further focus the development of WQT System Elements:

3. ***Credit Certification*** – This TAC meeting will discuss crediting processes, including certification (i.e., administrative review and approval); verification (i.e., physical, field inspection to confirm practices are installed); required ongoing operations, maintenance, monitoring and evaluation to validate credits over time; and compliance and enforcement actions needed. A broad range of actual program examples will be presented by the Geosyntec Team based on their direct experiences and related expertise. This TAC meeting will also address the RFP-posed question: ***How do projects fund and ensure ongoing operations and maintenance? And How does the region approve projects?***
4. ***Credit Tracking System*** – Experts in implementation of credit tracking programs from the Team and other agencies (e.g., USDA and their WQT adaptations of the national RIBITS program to track trades in Virginia and Iowa)⁶ along with municipal experts will be invited to discuss the appropriate structure of the WQT System Tracking. This TAC meeting will address the RFP-posed question: ***How does the region track projects?***

Following completion of the WQT System development, coordination of the Tracking System, and development of Template Documents, the Program will undergo legal review.

5. ***Legal Review*** – One final TAC meeting be held following legal review to discuss key feedback and considerations from CWA attorney, Brooks Smith,⁷ along with City and County perspectives and legal representatives. This TAC meeting will address the RFP-posed question: ***What is the appropriate legal agreement for participating entities that allows for a regional alternative compliance water quality crediting/trading/banking system, while minimizing the risk imposed on participating entities?***

⁶ See https://ribits.usace.army.mil/ribits_apex/f?p=107:285:9482649508569::NO for Iowa Nutrient Reduction Exchange (K&A with Iowa DNR), and https://ribits.usace.army.mil/ribits_apex/f?p=107:285:9482649508569::NO for Virginia; both part of recent USDA/USACOE WQT project and credit tracking efforts in the RIBITS national database.

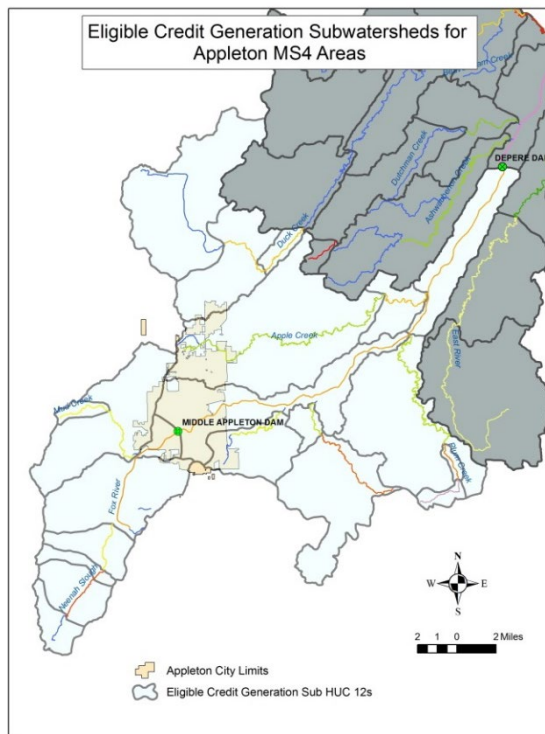
⁷ Constraints related to subcontracting legal services are outlined in Section 11 of this proposal.

Geographic Scale of System

One major question regarding the WQT System is one of scale. The cities that are leading this project are all located within Contra Costa County, however, the RFP suggests that the system is to be potentially applicable to the entire San Francisco Bay Area. The system proposed by the Geosyntec Team will be developed to allow intra-county trades within Contra Costa County only. Input will be gathered from municipalities from other counties covered under the MRP whereby the WQT System framework, credit calculations, and template documents produced for the project will be developed such that other Bay Area programs could potentially adapt these products to allow for intra-county trades within their own counties.

The Geosyntec Team will develop a WQT System that can be implemented at the County level and easily adapted for other stormwater programs within the region. The position of the Geosyntec Team is that a full WQT System to allow for inter-county trades could not be developed fully within the project budget. Such a program would require the consideration and/or development of a regional body that could administer the program, as well as consensus from all five stormwater programs – seventy-nine Permittees (including the recently added east Contra Costa Permittees).

If an inter-county program is explored through this project, the suggested scope in this proposal would be revised to include more inter-county discussion and negotiation meetings. The ultimate WQT System Framework would focus in detail on the legal ramifications and needs. Specifics of the inter-county system, and supporting documents such as template documents, would not be produced.



Eligible (light blue) trading subwatersheds for the City of Appleton, WI (K&A, 2016)

Using input from TAC meetings and AC meetings, geospatial analyses will be conducted to define geographical limits of trading, if determined to be needed on the basis of participants, legal determinations (e.g., appropriate watershed scale for trades), or water quality and financial reasons (e.g., practices installed in specific areas do not generate enough cost-effective credits to benefit the market). The results of these analyses will be mapped to illustrate relevant geographical and logistical market conditions. A similar mapping example from a 2016 K&A assessment of the Fox-Wolf Basin in lower Green Bay, WI (also affected by sediment and historic PCBs loading) is illustrated in the map below for sediment (and phosphorus) trading by MS4s with other land uses.⁸

Considerations for Program Funding and Financing

Recognizing the sources and means of potential GSI project funding will be part of the critical conversation around the WQT System structure. If the structure does not explicitly recognize multiple revenue streams, it may inherently restrict select

funding opportunities. The history of WQT program development is fraught with examples of

⁸ <http://www.envtn.org/water-quality-trading/state-programs/LFRW%20WQT%20Economic%20Feasibility%20Assessment%20Final%20Report%201-16-15.pdf>

programs lacking revenue sources resulting in missed opportunities. As such, the Geosyntec Team will bring their substantial experience to WQT System conversations to identify decisions that could create potential program funding restrictions. The Geosyntec Team will consider a wide variety of potential GSI project funding sources and opportunities, including:

- Municipal Capital Improvement Programs
- In-Lieu Fees
- Public Private Partnerships (P3)
- Local Stormwater Fees
- State Revolving Loan funds
- CARB revenues
- Supplemental Environmental Projects (environmental fines)
- Watershed management authority financing
- Green Bonds
- Corporate Sustainability Programs
- County Recreational Bonds

This investigation will also include considerations relating to cost-sharing across jurisdictions. It is noted here that where mitigation banking or pay-for-performance types of market structures might be employed, only credit purchase costs may be publicly disclosable. Private sector project implementation costs will likely be considered proprietary by project developers under select market structures that seek lowest price bid competition.

Tracking System

The Geosyntec Team's broad program experience with local, watershed, regional and national WQT program tracking requirements will allow for efficient coordination with SFEI on the Tracking Tool. The Team has substantial background in the type of information that is needed for credits generated, traded, and certified. The Geosyntec Team also has considerable background in Bay Area PCBs and mercury load reduction tracking that will provide local context. The Team will prepare templates, review and verify the SFEI tool, and confirm that comments have been implemented in development of the tool. Geosyntec Team members have developed dozens of WQT System credit template forms for past programs across the country, including within California. These will provide project efficiencies for adaptation of the Tracking Tool to the final framework and accelerate uptake by project participants.

INNOVATION AND ADVANCED TECHNIQUES

The Geosyntec Team's approach for developing a WQT System for Contra Costa County that could be applied to other stormwater Programs in the San Francisco Bay Area will focus on the need for progress towards long-term goals of reducing pollutant loads. The Geosyntec Team recognizes the challenges of TMDL implementation and will maintain a focus on an implementable framework to achieve TMDL and other water quality goals with the WQT System. The Geosyntec Team's broad environmental market development, implementation, and market participation experience lend themselves to this goal.

Where other WQT and trading-like programs have languished in the U.S. because of a focus on *process* and not necessarily *progress* towards water quality goals, our streamlined approach will draw upon elements of successful programs. These include cost and program efficiencies with market elements such as reverse auctions for least cost credits, public tracking platforms that also identify potential project options, and administrative platforms that utilize existing public programs and agency staffing. These will be geared specifically towards Bay Area WQT System applications that can accelerate load reduction goals. Though we will build on other program successes, the Geosyntec Team will not be employing a cookie-cutter approach with simply a geographical name substitution for the Bay Area framework. Rather, the direct and broad Geosyntec Team experiences described in this proposal will allow for an approach designed specifically for the San Francisco Bay Area and MRP Permittees.

The nature of the targeted pollutants, and a lack of precedence in trading or offsetting of persistent bioaccumulative toxics, will require experienced and adept consideration by USEPA and CWA policy experts, such as Geosyntec Team members K&A, BMP, and Troutman Sanders. Additionally, the unique and specific treatment and load reduction considerations for physical capture and retention of both PCBs and mercury are well understood by Geosyntec and EOA.

The Geosyntec Team will recognize and consider quantification of other environmental benefits associated with GSI such as runoff volume reduction (flood risk mitigation), habitat, and urban greening. This consideration of “credit stacking” is a complex topic that can be considered during WQT System development. Appropriate application of this concept can potentially open additional opportunities for broader project funding mechanisms as Team members have demonstrated in other trading programs.

Geosyntec Team member experiences with private sector investments and public private partnerships will bring relevant and practical experience to the WQT System framework development process. These will not only bolster consideration of various funding innovation options, but also will elucidate potential participant restrictions for program consideration. Participation of experienced Geosyntec Team members in various committee meetings will provide unique perspectives across WQT and related mitigation market experiences to these conversations. This will also help identify likely program element successes and eliminate options that have otherwise failed in other settings. Overall, our consideration of these innovations will underpin the Team’s desire and focus on developing a WQT system framework process that is keenly focused on progress towards water quality goals and compliance objectives.

DETAILED SCOPE OF WORK

Task A: Kick Off Meeting

An in-person, two-hour kick-off meeting will be held between the Geosyntec Team and the Steering Committee (SC), along with other advisors identified by the SC. The kick-off meeting will describe the project objectives, run through a detailed project schedule, proposed meeting topics, key decision points, and the intended deliverables. A **Kick-Off Meeting Project Package** including the meeting agenda, detailed project schedule, deliverable plan, proposed meeting topics, and preliminary names of committee members will be delivered to the participants in advance of the meeting. Changes identified during the kick-off meeting will be made following the meeting and a **Revised Project Package** will be sent out.

Deliverables: Kick-Off Meeting Project Package; Facilitation; Notes; Revised Project Package

Task B: Committee Meetings

Three committees have been identified for this project. These include:

- **The Steering Committee (SC):** A committee comprised of representatives from a few jurisdictions that will guide the development of the WQT System. As stated in Section 5, it is assumed that the City of San Pablo (Amanda Booth) is the main POC for the Project.
- **The Advisory Committee (AC):** A larger committee open to various stakeholders (jurisdictions, regulatory agencies, and regional organizations) that have an interest in being involved and would like to provide input into development of the WQT System.
- **Technical Advisory Committee(s) (TACs):** TACs consisting of technical and/or legal experts will be formed with input from the SC to address specific issues that arise as part of developing the WQT System.

Details regarding meetings with each of these committees are as follows:

Task B.1: SC Meetings

It is anticipated that 15 SC meetings will be held over the course of the project. It is anticipated that 10 will be in-person, 2-hour meetings, and five will be 1-hour phone meetings. The SC meetings will cover preparation for upcoming workshops, AC meetings, and TAC meetings; project schedule updates; deliverable progress; and ultimate decisions relating to WQT System component decisions and structure. Input from workshops, AC meetings, and TAC meetings will be synthesized in advance of key SC meetings to enable actionable decision making.

Deliverables: Fifteen (15) Meeting Agendas and associated Review Materials; Scheduling for Fifteen (15) Meetings; Facilitation of Fifteen (15) Meetings; Fifteen (15) Brief E-mail Meeting Summaries.

Task B.2: AC Meetings

It is anticipated that six, 2-hour AC meetings will be held over the course of the project. AC meetings will include:

1. **AC #1:** The kick-off AC meeting will be held directly following the first Workshop and first TAC meeting. Workshop invitees will be informed of the date of the first AC in the Workshop invite. The meeting will include an overview of the project, a summary of the committee objectives, discussion of feedback from the Workshop, and solicit input on TAC meeting #1.
2. **AC #2, #3:** Two AC meetings will be held following TAC meetings #2 and #3/4, respectively, to discuss the information provided and obtain input from stakeholder advisors.
3. **AC #4:** One AC meeting will be held to discuss the identified trading system and feedback from participants at Workshop #2.
4. **AC #5:** One AC meeting will be held following completion of legal review and the final Legal Review TAC, to discuss responses to legal comments matrix and final program documents.
5. **AC #6:** The final AC meeting will be held following implementation of pilot projects, to discuss outcomes and recommended edits to the Program Documents from the Team.

It is anticipated that AC members will also be kept updated on a quarterly basis via e-mail when meetings are not held (anticipated to occur during Q3 2021, Q4 2021 and Q2 2022).

Deliverables: Six (6) Meeting Agendas, with Review Materials; Scheduling for Six (6) Meetings; Facilitation of Six (6) Meetings; Six (6) Meeting Summaries; Three (3) Quarterly E-mail Updates

Task B.3: TAC Meetings

It is anticipated that five (5) TAC meetings will be held over the course of the project. All will be in-person meetings. As described in the Approach, the suggested TAC meeting topics include:

1. **Units of Credit and Equivalency Analysis** – Experts in WQT metrics will be invited to participate in this 3-hour TAC meeting.
2. **WQT System/Legal/P3 & Finance Discussion Meeting** – This half day TAC meeting will dive into key considerations for the WQT System structure.
3. **Credit Certification** – This 2-3-hour TAC meeting will invite experts to discuss how credits are certified for the required lifetime of the credit.
4. **Credit Tracking System** – Experts in credit tracking program implementation will be invited to this 2-3-hour meeting to discuss the appropriate structure of the WQT System Tracking.
5. **Legal Review** – Geosyntec Team Member Brooks Smith⁹, along with City and County

⁹ Constraints related to subcontracting legal services are outlined in Section 11 of this proposal.

attorneys selected by the SC, would participate in this 3-hour Legal Review TAC to provide a summary of their legal review of the Final Program Documents, and recommendations.

Deliverables: Five (5) Meeting Agendas; Scheduling for Five (5) Meetings; Facilitation/Presentations for Five (5) Meetings; Five (5) Meeting Summaries.

Task C: Literature Review

The literature review conducted for Task C will summarize information about the key components and decisions needed to develop a successful WQT system specific to the Bay Area. The objective of the literature review is to describe WQT System elements under USEPA policy, other relevant programs and effective market-like structures across varying geographies. Along with key discussions of related elements, outcomes of this effort will focus on identifying a narrowed range of options for the Bay Area WQT System.

A suggested outline for the literature review was presented in Section 6 of this proposal. This will be expanded into an **annotated outline** for review by the SC. In addition to the annotated outline, a detailed **cross-cut analysis** will be developed to explore the program considerations included in the literature review outline, across a variety of example programs. To enable development of a focused and effective literature review document, Task C will be performed in parallel with the first two TAC meetings and will utilize output from the TAC and subsequent AC meetings to inform the document focus.

Portions of the cross-cut summary will be presented and discussed during the first two TAC meetings and the subsequent AC meetings (i.e., applicable **Unit of Credit** (TAC #1/AC #1) and **WQT System** (TAC #2/AC #2). Meeting decisions and outcomes from the parallel TAC and AC meetings will be summarized in meeting summaries produced as part of Task B and reviewed by the SC, AC, and TAC, as applicable.

Utilizing the discussion summarized in TAC and AC meetings #1 and #2 notes and the cross-cut summary, the Geosyntec Team will draft the Literature Review, addressing any comments on meeting notes provided from the SC, TAC, and/or AC. The **Draft Literature Review** will be provided to the SC and (if directed by the SC), the AC and/or the TAC for review. Comments received on the draft Literature Review will be discussed with the SC and addressed in the **Final Literature Review**.

Deliverables: Draft Annotated Literature Review Outline; WQT System Components Cross-Cut Table; Draft Literature Review; Final Literature Review.

Task D: Workshops

As part of Task D, the Geosyntec Team will conduct Project Workshops. This scope and budget assume that two Workshops will be conducted for the Project:

1. **Workshop 1** – The first workshop will introduce the Project, describe Project objectives, summarize capabilities and limitations of WQT Systems and identify/discuss the major components to be discussed in TAC meetings and developed through Task E. This workshop will also be used to identify the entities interested in participating in the AC.
2. **Workshop 2** – The second workshop will occur during the later stages of WQT System development, following direction from the SC regarding key components of the WQT System. The second workshop will provide an overarching framework for how the WQT System will work and will request stakeholder input, questions, and/or concerns.

The Geosyntec Team will work with the SC to identify Workshop dates, and will send out Workshop invitations and notifications. The Geosyntec Team will also design the Workshop agenda, identify presenters at the Workshop, coordinate presentations, coordinate or confirm

that refreshments, audio/visual equipment, and chairs/tables are supplied, facilitate Workshops, prepare interactive Stakeholder activities and/or facilitate a question and answer period, and obtain SC review on all preparatory materials. The Geosyntec Team will also compile Workshop notes, pictures, and other relevant grant reporting information for SC review. It is assumed that the SC will identify and reserve the Workshop venue and identify Workshop attendees.

*Note: If the SC determines that a third workshop is needed, a 2-hour workshop will be conducted **instead** of one or more AC meetings (number dependent on workshop format), to manage budget limitations.*

Deliverables: Two (2) Workshop invites, agendas, handouts, presentations, sign-in sheets; Facilitation of two (2) Workshops; Notes and Photos for two (2) workshops; One (1) Round of review assumed for all deliverables.

Task E: System Development

Using the outline, key decisions, and assumptions documented in the Literature Review, the WQT System will be developed as part of Task E.

Task E.1: Data Request and Analysis

Development of the WQT System will first include a **data request** sent to members of the SC, AC, and/or staff of the CCCWP. County data received will be compiled and tracked in a **database**.

Using data received, the Team will **conduct geospatial analyses** to define **geographical limits of trading** within Contra Costa County, if determined to be needed. **Additional analyses will be conducted** to define the identified baseline conditions in relation to water quality goals; units of water quality credits; credits generated associated with different accepted practices; and equivalency analyses (i.e., credit value variability based on land use, location, or other characteristics).

*The **data request** will ask for information relevant to credit definitions, practices to achieve credits, and potential volume of trades based on the anticipated compliance requirements. This may include but not be limited to:*

- RAA results,
- GSI Plan data and information,
- GSI costing information,
- Areas of anticipated development,
- Land use and imperviousness information, and
- Other potentially relevant data.

In cases where the Geosyntec Team already has data, the SC, AC, and staff will be asked for permission to use existing data.

Credit calculation methods will be simplified to the extent possible. If applicable, **trade ratios**, which may be applied to different buyers and sellers, credit-generating locations, practices and/or credit generation characteristics, will be developed and documented.

Following the preliminary WQT System analysis conducted above, **credit certification processes** will be discussed and described during the TAC meeting #3 and subsequent AC meeting #3 (note, this AC meeting will discuss TAC meetings #3 and #4). Feedback, decisions, and key relevant information relating to needed credit certification processes compiled in TAC and AC meeting notes as part of Task B will be incorporated into the WQT System.

Existing cost data for GSI practices will be examined to **assess the range of potential credit costs** given various geographic source loading conditions and relevant eligibility and/or credit discounting that may be recommended in the framework. Full cost analyses will be performed by the Geosyntec Team for this assessment. These will be grounded in decades of project and program developer expertise considering land acquisition costs and associated legal fees, design, construction, BMP capture efficiency, BMP operation & maintenance, effective BMP life,

replacement costs, potentially required removal and disposal of accumulated contaminants, and program administrative costs for assessing credit pricing. Results of these analyses will support targeting of optimal crediting projects as well as potential programmatic incentives and disincentives for GSI project location.

Funding options and/or mechanisms will be drawn from the cross-cut analysis under Task C. The Team will include other funding innovations considered in California and options noted.

Deliverables: Data Request; database of data received; details for project cost estimates and crediting calculation recommendations (included as appendix to WQT System Summary Report); it is assumed that SC, AC, and or TAC review will occur as part of Task E.2.

Task E.2: WQT System Summary Report

The analyses described in Task E.1, along with legal rationale, and information from experts and stakeholders, will be synthesized into a **WQT System Summary Report**. The framework for the WQT System will build from the Literature Review and will include:

- Objectives of the system relative to TMDL goals and allocations, anticipated MRP requirements, and potential constraints (i.e., [legal/permit structure of the system](#)).
- Rationale for WQT System selection.
- Unit of Credit and associated summary of [pollutant](#) (load reduction credit) [calculations and/or volume/area treated calculations](#) and financial analysis conducted, with associated appendices.
- Practices that achieve identified units of credit.
- Identification of eligible trades, parties eligible to trade, trade ratios, and trade restrictions.
- Instructions on credit calculation method, including trade ratios as applicable.
- Section on [Instructions/Procedures for WQT System Implementation](#).
- [Description of Risk and Uncertainty Management](#).
- [Description of Tracking Tool, and Instructions for Use](#), working with SFEI to develop these items.
- Example [Permitting Language](#), using the materials compiled from Tasks E.2, E.3, and E.4.

Note: Components in the RFP have been incorporated and are identified as [Blue](#) for Implementation Guidance Documents, [Red](#) for Programmatic Documents, and [Green](#) for Template Documents.

It is anticipated that the WQT System development will be discussed in SC meetings over the course of its development. The **Draft WQT System Summary Document** will be provided to the SC and, if directed by the SC, to the AC and/or the TACs for a single round of comments. Compiled comments received from the committees will be incorporated into the **Revised Draft WQT System Summary Document**.

Deliverables: Draft WQT System Summary Report; Revised Draft WQT System Summary Report.

Task E.3: Credit Tracking System

The Geosyntec Team will develop template tracking spreadsheets or databases to be incorporated into the Tracking System developed by SFEI. Input from the **Credit Tracking System** TAC Meeting #4 and AC #3 will be incorporated into the structure of the tracking system. It is anticipated that the Credit Tracking System would compile the following information:

- Credit-generating [project tracking](#) data, including location, drainage area characteristics,

sizing, **capital costs (if publicly disclosable)**, and applicable trade ratios or discounting factors.

- **Credit accounting** (i.e., credits generated using **pollutant calculations** developed to define the unit of credit), Implementing Party, and Project funding/financing, as applicable.
- **Credit purchaser information.**
- **Total credits traded.**
- Credit **approval requirements, likely** including:
 - Third-party completeness certification of crediting-project application.
 - Third-party verification of crediting project implementation and annual inspections.
 - Environmental monitoring data (where required).
- Other calculated environmental credits.
- Operations and maintenance (O&M) tracking or other credit certification needs, including **O&M conducted and associated O&M costs** if disclosable.
- **Invoice tracking** for crediting project installation costs and credit payments.
- **Mapping** of crediting projects and public disclosure elements associated with contaminant capture, O&M, cleanout history, and environmental monitoring.
- For proof of O&M, it may be suggested that a collector app or other tool be incorporated into the SFEI tool to store **annual O&M documentation** and forms.

The information in the above bullets, along with a description of the suggested format of the Tracking System, will be compiled and documented in a brief memorandum or flow chart. Tracking tool information formatting materials will be provided as an attachment to the memo or flow chart in the form of spreadsheets and/or a link to online database formats. This **Draft Credit Tracking System package** will be made available to the SC for review; the **Revised Draft Credit Tracking System Package** and SC comments will then be provided to SFEI for incorporation into the Credit Tracking System. The Geosyntec Team will provide **two rounds of review** on the Credit Tracking System tool and conduct up to two calls with SFEI to discuss.

Deliverables: Draft Credit Tracking System package, including brief memo/flowchart, and attached/linked spreadsheet/database structure with attribute columns; Revised Draft Credit Tracking System Package Two (2) rounds of review of SFEI Tracking Tool to confirm integration of needed Tracking System components; Up to two (2) calls with SFEI.

Task E.4: Template Documents and Supporting Documents

The Geosyntec Team will draft several template forms and applications for the WQT System and integrated SFEI Tracking Tool that align with the final market structure. These are anticipated to include:

- **Memoranda of Understanding (MOU)** or **interagency agreements** establishing the basis for program participation, cooperation, and administration.
- Annual program **staff report** template.
- **Resolutions** among program participants on program changes.
- **O&M Inspection Certification** template.
- Contractual obligations for participants (i.e., for specific trades).
- **Guidance on GSI project O&M/disposal and manifesting requirements.**

Deliverables: Task E.4 Draft Template Documents listed; Revised Draft Template Documents.

Task F: Legal Review

Legal review of the documents released as part of Task E will take place as part of Task F. The review will be coordinated by Geosyntec, with oversight by the SC. The legal review will entail

how the WQT System will comport with the local, state, and federal requirements; CEQA; and TMDL requirements. Comments and input provided by Brooks Smith along with City and County attorneys will be compiled into a **Legal Comments Matrix** by the Geosyntec Team. Brooks Smith and City and County attorneys selected by the SC would participate in the **Legal TAC meeting #5**, to discuss the legal review findings and comments.

Deliverables: Transmittal of Revised Draft Task E.2 and E.4 deliverables (see Task E, previous) and SFEL's final Credit Tracking Tool link, to Brooks Smith along with City and County attorneys identified by the SC; Legal summary review of Task E WQT System Documents by Brooks Smith¹⁰; Legal Comments Matrix.

Task G: Final System Documents

As part of Task G, WQT System documents produced as part of Task E will be edited to incorporate two rounds of comments. The first round of comments received is assumed to be the legal comments received under Task F. **Responses to the Legal Comments Matrix** compiled as part of Task F will be developed under Task G. Following approval of responses by the SC via meeting and written communication, Task E System Documents will be revised to incorporate agreed-upon changes.

The resulting **Draft Final Program Documents**, along with the detailed **Responses to Legal Comment Matrix**, will be distributed to the SC and the AC for review and input. A meeting with the AC will be held to discuss input the Draft Final Program Documents (AC Meeting #5, Task B). Comments received from the AC during the meeting and subsequent e-mail responses from AC members will be compiled into an **AC Comments Matrix**. Responses to AC comments will be developed, approved by the SC via meeting and written communication, and subsequent edits made to the Final Program Documents to address the comments (Round 2 edits).

The resulting **Final Program Documents** and **Responses to the AC Comments Matrix** will be distributed to the SC and the AC.

Deliverables: Responses to Legal Comments Matrix; Draft Final Program Documents (Round 1 edits); Responses to AC Comments Matrix; Final Program Documents (Round 2 edits).

Task H: Pilot Project Implementation

As part of Task H, the Geosyntec Team will develop project-specific program **Pilot Project Trading Documents** needed for one to two pilot projects identified and designed by others (outside of this scope of work). Documents are anticipated to include a compilation of project information to be tracked, including project location, drainage area and land use type, calculated credits generated, parties generating credits, capital costs, and funding/financing information as applicable. In addition to the information about the project and credits generated, documents supporting the trade, including a MOU and/or interagency agreement, and O&M certification or other credit certification documents, as applicable, will be refined.

Lessons learned from the development of the project-specific WQT System/tracking information and credit trading pilot will be documented in a brief **Pilot Project Lessons Learned Memorandum** and shared with the SC. Based on input from the SC, **Revisions to the Final Program Documents** will be made and shared with the AC. A final AC meeting (AC Meeting #6, Task B) will be held to discuss any changes made.

Deliverables: Pilot Project Trading Documents; Pilot Project Lessons Learned Memorandum;

¹⁰ Constraints related to subcontracting legal services are outlined in Section 11 of this proposal.

One Round of Revisions to Final Program Documents.

Task I: Grant Reporting

The Geosyntec Team will conduct Grant Reporting consistent with the USEPA Grant Application and the USEPA Notice of Award as part of Task I.

Task I.1: Quarterly Progress Reporting and In-Kind Match Tracking

1. **Quarterly Progress Reports** – Using the template provided as Attachment 4 of the RFP, the Geosyntec Team will prepare ten (10) Quarterly Progress Reports to describe progress with the tasks included as part of this Project scope. Updates will be provided in accordance with the USEPA Notice of Award Programmatic Conditions. The Geosyntec Team will provide two (2) drafts of the first Progress Report (i.e., Q1 2020) to allow for client changes to Quarterly Report template, tone, and level of detail. Utilizing this feedback, the Geosyntec Team will provide one (1) draft of the remaining nine (9) Quarterly Reports (assumed Q2 – Q4 2020, Q1 – Q4 2021, and Q1 – Q2 2022). To manage budget, minor edits only will be made to these nine (9) Quarterly Reports, if requested by the SC. As required by the USEPA Programmatic Conditions, Progress Reports will include:
 - A discussion of the activities conducted during the (previous) two quarters (including a comparison of actual accomplishments with the anticipated outputs and outcomes specified in the workplan);
 - Progress towards milestones;
 - Problems encountered with achieving outputs and outcomes, and their resolution;
 - Activities planned for the next two quarters;
 - A financial accounting of costs incurred during the reporting period;
 - Cumulative project costs (USEPA and match amounts) since the beginning of the project, by task; and
 - Identification of any special USEPA assistance needed, and an explanation of any cost overruns.
2. **In-Kind Match Tracking Sheets** - The Geosyntec Team will send out a once-monthly e-mail request for financial/timesheet submittals for all jurisdictions participating in the Project and will follow-up as needed to obtain the submittals. The Team will track and compile timesheet submittals on a quarterly basis for inclusion in Quarterly Progress Reports. It is assumed that ten (10) compiled timesheet submittals will be produced.

Deliverables: One (1) Draft Example Quarterly Report (for Q1 2020); ten (10) Final Quarterly Reports; ten (10) In-Kind Match Tracking Sheets.

Task I.2: Final Project Report

The Geosyntec Team will **draft the Final Project Report** in accordance with USEPA Notice of Award Programmatic Conditions a.) Reporting (RFP Attachment 3). The final report will document all completed activities for the entire project period and provide a summary of the project achievements with respect to the project's purposes and objectives. It is anticipated that the Final Project Report will include the Revised Final Program Documents produced as part of Task H as an attachment. The **Draft Final Project Report** will be provided to the SC. Comments provided by the SC will be addressed in the **Final Project Report**.

Deliverables: Draft Final Project Report; Final Project Report

Under Task I, all deliverables (e.g., documents, templates, presentations, etc.) shall be formatted to comply with the USEPA Notice of Award Programmatic Conditions c.) Grant Source Recognition (RFP Attachment 3).

Task PM: Project Management

Geosyntec will perform **project management** for the project, including coordination with subs, task coordination, as-needed communication with the client POC (the City/Amanda Booth), including project progress updates, schedule updates and adaptation, budget and deliverable tracking, and invoicing.

PROJECT DELIVERY/ SCOPE ADAPTIVE MANAGEMENT

In addition to the project management protocols described in Section 5, adaptive management of the scope may be needed based on two specific factors:

1. *Consensus (or Lack Thereof)* – The design of TAC meetings, literature review topics, and the use of the cross-cut analysis should provide clear information for decision making. Given the number of entities that may be represented by the SC, the AC, and/or attending workshops as stakeholders, however, it is possible that there will be varied opinions on System decisions. If identified System decisions cannot be made within the suggested schedule included in this proposal due to lack of consensus, there may be challenges delivering all products included in the scope herein within the budget.
2. *Geographic Scale* – As mentioned early in Section 6, a Bay-wide geographic scale of the System is likely to limit the ability for the Team to deliver the scope detailed in Section 6. This is due to the additional administrative considerations and additional decision consensus challenges with a much larger pool of stakeholders.

Project Manager Kelly Havens, PE and Project Director Lisa Austin, PE will discuss the potential for scope adaptation immediately with the client POC (Amanda Booth) or the SC if any scope-limiting factors arise.

FINANCIAL RESPONSIBILITY

Geosyntec will complete this project for the City through excellent project execution and sound project management practices. Responsibility and stewardship of the City's financial, schedule, and quality objectives is the priority of the Geosyntec Team. The Cost Proposal provided in Section 8 provides details on the budget to meet the identified scope and assumptions including labor, subcontractor, and other costs. Geosyntec considers cost control to be a critical measure of project success for our clients and our project managers. During each phase of a project, we apply our project management and technical skills to meet the identified budget. We utilize the project management tools described in Section 5 to track budget and deliverable progress at frequent, regular intervals.

As described in the previous sub-section, if there is concern that a budget variance could occur, the Project Manager will inform the client POC (Amanda Booth) or the SC immediately and describe the nature of the variance and proposed corrective actions, which may include re-evaluating the scope of remaining work and consolidating or reducing remaining deliverable requirements.

7. SCHEDULE OF WORK

Task	A/B: Kick-Off Meeting (1); SC Meetings (15)	B: AC Meetings (6)	B: TAC Meetings (5)	C: Literature Review	D: Workshops	E: Implementation Guidance Documents	E: Programmatic Documents	E: Template Documents	F: Legal and Regulatory Review	G: Final Document Review	H: Pilot Project Implementation	I: Quarterly Reports and In-Kind Match Tracking	I: Final Project Report	PM: Project Management
Mar-20	Kick-Off Meeting				Workshop #1 Prep									PM
Apr-20	SC Meeting #1			Annotated Outline	Workshop #1 Prep							Q1 2020 Report		PM
May-20	SC Meeting #2	AC Meeting #1	TAC Meeting #1	Cross-Cut Table	Workshop #1, Notes	Data Request								PM
Jun-20	SC Meeting #3	AC Meeting #2	TAC Meeting #2			Analysis								PM
Jul-20	SC Meeting #4			Draft Literature Review		Analysis						Q2 2020 Report		PM
Aug-20				Final Literature Review		Analysis								PM
Sep-20	SC Meeting #5	AC Meeting #3	TAC Meetings #3/#4			Analysis								PM
Oct-20						Analysis	Draft Tracking Package					Q3 2020 Report		PM
Nov-20	SC Meeting #6				Workshop #2 Prep	Analysis								PM
Dec-20					Workshop #2 Prep	Analysis	Round 1 Review of SFEI System							PM
Jan-21	SC Meeting #7	AC Meeting #4			Workshop #2, Notes	Analysis						Q4 2020 Report		PM
Feb-21						Draft Trading Framework	Round 2 Review of SFEI System	Draft Template Documents						PM
Mar-21	SC Meeting #8					Revised Draft Trading Framework		Revised Draft Template Docs						PM
Apr-21									Legal Review			Q1 2021 Report		PM
May-21	SC Meeting #9								Legal Review; Legal Comments Matrix					PM
Jun-21	SC Meeting #10	AC Meeting #5	TAC Meeting #5							Response to Legal Comments Matrix				PM
Jul-21										Draft Final Program Documents; Response to AC Comments Matrix		Q2 2021 Report		PM
Aug-21	SC Meeting #11									Final Program Documents				PM
Sep-21											Pilot Project Trading Documents			PM
Oct-21	SC Meeting #12											Q3 2021 Report		PM
Nov-21														PM
Dec-21											Pilot Project Lessons Learned Memo			PM
Jan-22	SC Meeting #13	AC Meeting #6									Final Program Document Edits	Q4 2021 Report		PM
Feb-22													Draft Final Report	PM
Mar-22												Q1 2022 Report		PM
Apr-22	SC Meeting #14													PM
May-22													Final Report	PM
Jun-22														PM
Budget	\$10,211 (Task A:Kick-Off)/ \$116,956 (Task B: Meetings)			\$36,578	\$37,577	\$143,659			\$25,629	\$24,387	\$14,876	\$53,746	\$32,334	

8. COST PROPOSAL

A detailed Project Budget is Provided below.

Task Description		Geosyntec Consultants												Kieser & Associates							
		Sr. Principal	Principal	Sr. Engineer	Pr. Engineer	Professional	Sr. Staff	Staff	Admin	Clerical	Total Hours	Total Budget	Total Budget w/Comm Fee	Sr. Principal	Sr. Scientist	Sr. Engineer	Project Scientist	Total Hours	Travel	Total Budget	
	Rates	\$262	\$240	\$220	\$196	\$174	\$153	\$132	\$72	\$57				\$210	\$200	\$140	\$95				
A	Kick-Off Meeting		4	10							14	\$3,160	\$3,255	10			10	20	\$2,000	\$5,050	
B	SC, AC, TAC Meetings	16	66	124		40					246	\$54,272	\$55,900	80			32	112	\$7,000	\$26,840	
C	Literature Review	2	8	32		12					54	\$11,572	\$11,919	24	12		100	136		\$16,940	
D	Workshops		16	24							40	\$9,120	\$9,394	24			24	48		\$7,320	
E	WQT System Development	4	16	76	40	40	24	64		42	306	\$50,922	\$52,450	50	24		308	382		\$44,560	
F	Legal Review	1	4	8							13	\$2,982	\$3,071	8			14	22		\$3,010	
G	Final Document Review		4	20	20	32				8	84	\$15,304	\$15,763	12			28	40		\$5,180	
H	Pilot Project Implementation		4	16		20					40	\$7,960	\$8,199	8		16		24		\$3,920	
I	Grant Reporting		8	60		90	60			18	236	\$40,986	\$42,216	16			40	56		\$7,160	
PM	Project Management		24	108					26		158	\$31,392	\$32,334								
Total		23	154	478	60	234	84	64	26	68	1191	\$227,670	\$234,500	232	36	16	556	840	\$9,000	\$119,980	

Cost table continued below

Task Description		Panorama Environmental							EOA, Inc.				Bespoke Mitigation Partners			Totals			Troutman Sanders (Request Separate Contract; See Section 11)			Total with Requested Separate Contract
		Sr. Consultant	Facilitator	PM/Scientist or Planner III	Environmental Analyst I	Total Hours	Equipment	Total Budget	Mging Engineer III	Sr. Engineer III	Total Hours	Total Budget	Expert	Travel	Total Budget	Total Sub Labor	Total Sub Mark Up	Total Budget	Lawyer	Travel	Total Budget	
	Rates	\$220	\$225	\$165	\$100				\$279	\$232			\$250						\$500			
A	Kick-Off Meeting	2				2		\$440	1	1	2	\$511	2		\$500	\$6,501	\$455	\$10,211				\$10,211
B	SC, AC, TAC Meetings	16			24	40		\$5,920	12	20	32	\$7,988	18	\$2,000	\$6,500	\$48,248	\$3,307	\$106,456	16	\$2,500	\$10,500	\$116,956
C	Literature Review	8		4	2	14		\$2,620	2	4	6	\$1,486	8		\$2,000	\$23,046	\$1,613	\$36,578				\$36,578
D	Workshops	36	20		54	110	\$1,200	\$19,020								\$25,340	\$1,844	\$37,577				\$37,577
E	WQT System Development	16		6		22		\$4,510	20	106	126	\$30,172	24		\$6,000	\$85,242	\$5,967	\$143,659				\$143,659
F	Legal Review	16				16		\$3,520					4		\$1,000	\$7,530	\$527	\$11,129	29		\$14,500	\$25,629
G	Final Document Review	4				4		\$880					8		\$2,000	\$8,060	\$564	\$24,387				\$24,387
H	Pilot Project Implementation	6				6		\$1,320					4		\$1,000	\$6,240	\$437	\$14,876				\$14,876
I	Grant Reporting	8				8		\$1,760		8	8	\$1,856				\$10,776	\$754	\$53,746				\$53,746
PM	Project Management																	\$32,334				\$32,334
Total		112	20	10	80	222	\$1,200	\$39,990	35	139	174	\$42,013	68	\$2,000	\$19,000	\$220,983	\$15,469	\$470,953	45	\$2,500	\$25,000	\$495,953

RATE SCHEDULE (CONFIDENTIAL)

GEOSYNTEC CONSULTANTS	
Staff Professional	\$132
Senior Staff Professional	\$153
Professional	\$174
Project Professional	\$196
Senior Professional	\$220
Principal	\$240
Senior Principal	\$262
Technician I	\$ 70
Technician II	\$ 75
Senior Technician I	\$ 81
Senior Technician II	\$ 88
Site Manager I	\$100
Site Manager II	\$104
Construction Manager I	\$117
Construction Manager II	\$126
Designer	\$140
Senior Drafter/Senior CADD Operator	\$ 128
Drafter/CADD Operator/Artist	\$ 116
Project Administrator	\$ 72
Clerical	\$ 57
Direct Expenses	Cost plus 12%
Subcontract Services	Cost plus 7%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	\$ 15
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	\$.09

Kieser & Associates, LLC	
Senior Scientist/Principal	\$210
Senior Scientist/Env. Eng.	\$200
Senior Engineer	\$140
Environmental Engineer I	\$100
GIS/Tech Specialist	\$90
Project Scientist	\$95
EOA, Inc.	
Managing Engineer III	\$279
Senior Engineer III	\$232
Panorama Environmental	
Sr. Consultant	\$220
Facilitator	\$225
PM/Scientist or Planner III	\$165
Geologist	\$145
Environmental Sci II/GIS III	\$150
Environmental Sci I/GIS II	\$135
Technical Editor	\$110
Environmental Analyst II/G	\$110
Environmental Analyst I	\$100
Document Manager	\$80
Admin	\$65
Bespoke Mitigation Partners	
Advisor	\$250
Troutman Sanders	
Advisor	\$500
Kieser & Associates, LLC	
Senior Scientist/Principal	\$210
Senior Scientist/Env. Eng.	\$200
Senior Engineer	\$140

Rates are provided on a confidential basis and are client and project specific.

Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Produce Price Index for Engineering Services.

Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.

Construction management fee presented upon request.

9. METHOD OF PAYMENT

The Geosyntec Project Team will perform the services outlined in the proposed scope of work in Section 6 and as stated in the final contract on a time and materials basis, not to exceed the stated total budget in Section 8 above. Effort will be invoiced monthly with a detailed summary of monthly progress.

10. REFERENCES

GEOSYNTec PROJECT EXPERIENCE AND REFERENCES

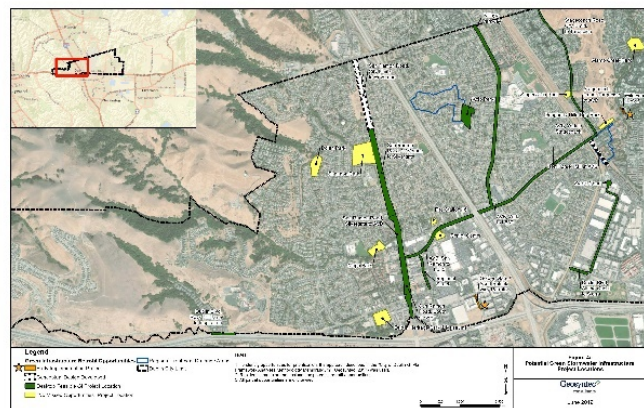
Contra Costa Clean Water Program Technical Support, Contra Costa, CA

- a. **Project reference:** Karin Graves, Sr. Watershed Management Planning Specialist, Contra Costa Clean Water Program, (925) 313-2042, karin.graves@pw.cccounty.us
- b. **Type of project:** County Program Stormwater Permit Compliance Technical Support
- c. **Client type:** County Stormwater Program
- d. **Size and scale of geographic area:** Contra Costa County (716 sq-mi)
- e. **Current status:** In-progress
- f. **Key lesson(s) learned, as relevant to the Project:** Understanding the geographical and political nuances of different Permittees is critical to enable development of a Countywide strategy to TMDL compliance.

Scope of Services: Geosyntec assists the CCCWP in various stormwater management planning and program implementation tasks. Ongoing tasks include assisting with PCBs and mercury TMDL implementation planning. Geosyntec is conducting the MRP-required countywide RAA which provides an alternatives analysis in support of the TMDL Implementation Plan due in 2020. For CCCWP, this also included the development of a Countywide Attainment Strategy to achieve the TMDL load reduction. Geosyntec also assists the CCCWP Permittees with identifying, characterizing, and managing PCBs and mercury source areas, and reporting on these activities and associated load reductions in compliance with the MRP and is participating in the BASMAA Monitoring and Pollutant of Concern Committee (MPC) on behalf of CCCWP. Geosyntec assists with Annual Report sections related to MRP Provisions C.11 and C.12.

City of Dublin Green Infrastructure Planning and Related Technical Support, Dublin, CA

- a. **Project reference:** Shannan Young, Environmental Coordinator, (925) 833-6616, Shannan.Young@dublin.ca.gov
- b. **Type of project:** City Stormwater Permit Compliance Technical Support
- c. **Client type:** Municipal (MRP Permittee)
- d. **Size and scale of geographic area:** City of Dublin (9,750 acres)
- e. **Current status:** In-progress
- f. **Key lesson(s) learned, as relevant to the Project:** Coordination with other non-permittee public agencies in the area has allowed for consideration of multi-benefit GSI projects. Field-based project feasibility checks are critical for implementation of GSI in urban areas.



Scope of Services: Geosyntec is providing the City of Dublin technical support for GSI-related compliance under the MRP. Completed analyses include identification of potential GSI project

locations (for the Green Stormwater Infrastructure Plan), cost estimates, and design details to conform stormwater elements with City standards. Geosyntec also developed an alternative project delivery (public-private partnership, or P3) White Paper and an Alternative Compliance Program Handbook to assist in the City's evaluation of various GSI funding strategies. Geosyntec conducted field assessments and prepared concept designs for top priority GSI public retrofit projects. Geosyntec is currently working with the City on planning considerations for an alternative compliance program, including necessary precursor studies.

Walnut Creek Green Infrastructure (GI) Plan Development, City of Walnut Creek, CA

- Project reference:** Lucile Paquette, Clean Water Program Manager, (925) 256-3511, paquette@walnut-creek.org
- Type of project:** City Stormwater Permit Compliance Technical Support
- Client type:** Municipal (MRP City Permittee)
- Size and scale of geographic area:** City of Walnut Creek (12,500 acres)
- Current status:** In-progress
- Key lesson(s) learned, as relevant to the Project:** Participation by multiple City departments allowed for buy-off of approach and selection of a variety of GSI projects in different locations. Project team in-depth knowledge of Bay Area and County specific technical discussions and challenges was helpful in guiding the direction of the City's GSI Plan.



Scope of Services: Geosyntec led the development of the City of Walnut Creek's GSI Plan. Geosyntec conducted GIS analyses and pollutant load reduction calculations and discussed GSI planning objectives with the City to develop a list and map of the highest priority GSI retrofit locations. Geosyntec also managed a GSI funding and financing strategy evaluation, including workshops with the City and analyses to identify the GSI implementation strategies that are most in-line with the City's current administrative operations and GSI goals. In response to the City identifying an In-Lieu Fee as a potential strategy to be pursued in further detail, Geosyntec is managing City discussions and analyses specific to the development of a fee-in-lieu program. Lastly, Geosyntec prepared concept designs for top priority public GSI retrofit projects.

ADDITIONAL GEOSYNTec PROJECT EXPERIENCE

Offsite Storm Water Alternative Compliance Program, San Diego, CA

Scope of Services: The Regional Municipal Separate Storm Sewer System (MS4) Permit, adopted by the San Diego Regional Water Quality Control Board (RWQCB), provides the City of San Diego (City) discretion to allow new development and redevelopment projects to use offsite projects to supplement or entirely replace onsite structural best management practices (BMPs). The program standards guidance Geosyntec developed for the City is the first of its kind, as this program is the second storm water alternative compliance (i.e., credit trading) program in the U.S. and the first on the west coast. The guidance and accompanying tools and templates could be expanded to meet the needs of the City's state and local partners, generating more water quality improvements throughout the region and potentially throughout California.



High-level schematic of alternative compliance program credit exchange process

KIESER & ASSOCIATES PROJECT EXPERIENCE AND REFERENCES

DuPage River Salt Creek Development of a Basin-wide Nutrient Trading Program, Illinois

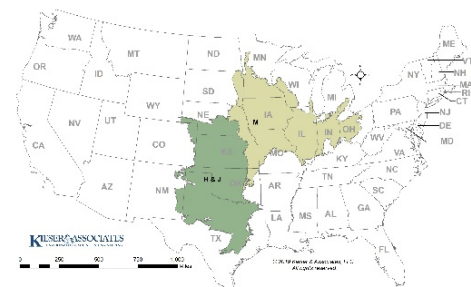
- a. **Project reference:** Deanna Doohaluk, Watershed Project Manager, DuPage River Salt Creek Workgroup, (630) 428-4500, Ext. 133, DDoohaluk@theconservationfoundation.org
- b. **Type of project:** The DuPage River Salt Creek Workgroup (DRSCW) retained K&A as part of a consulting team in 2017 through a national competition to initiate development of a basin-wide Nutrient Trading Program Framework that focused on point source-to-point source trading with the possibility of point source-to-nonpoint source trading and offsets from stream restoration as alternative to point source controls.
- c. **Client type:** K&A provided technical expertise for a TMDL response workgroup including representatives from local communities and agencies including, Publicly Owned Treatment Works, (POTWs), municipalities with a Separate Storm Sewer System (MS4s), environmental organizations and engineering companies. (<https://drscw.org/about-us/>)
- d. **Size and scale of geographic area:** 361 sq. mile; DuPage River and Salt Creek watersheds in DuPage and Cook Counties, Illinois
- e. **Current status:** In-progress since 2017
- f. **Key lesson(s) learned, as relevant to the Project:** Be forward thinking: As part of the DRSCW's efforts to meet negotiated permit requirements, the DRSCW is examining how potential offsetting of nutrient reductions by incentivizing stream restoration projects implemented by POTWs could be programmatically adopted.



Scope of Services: The DuPage River Salt Creek Workgroup (DRSCW) is a group of local, publicly owned treatment works (POTWs) and communities. Trading is a key component of the Nutrient Implementation Plan (NIP) required by IEPA through all NPDES permits issued to publicly-owned treatment works (POTWs) in the DRSCW watersheds. To identify potential equivalency between POTW nutrient load reduction requirements and instream restoration benefits, K&A has assessed similar stream restoration crediting efforts, programs, and methodologies used in other watersheds. These are being adapted and refined to potentially formalize offset provisions.

Protocol Development for Ecosystem Service Market Credits from Agricultural Working Lands

- a. **Project reference:** Debbie Reed, Executive Director, Ecosystem Services Market Consortium (ESMC), (202) 701-4298 (cell), dreed@ecosystems-servicesmarket.org
- b. **Type of project:** K&A is leading a national team of pragmatic market-makers and shapers for the Ecosystem Service Market Consortium (ESMC; www.ecosystems-servicesmarket.org) to develop functional protocols to advance markets that incentivize farmers and ranchers to improve soil health systems that benefit society focusing on soil carbon, water quality and water quantity.
- c. **Client type:** Leading protocol development team for ESMC, a collaboration of members from across the entire agricultural supply chain and value chain working together to ensure that the program scales successfully to meet farmer and rancher needs as well as



- corporate, NGO, consumer and societal needs.
- d. **Size and scale of geographic area:** 361 sq. mile; DuPage River and Salt Creek watersheds in DuPage and Cook Counties, Illinois
- e. **Current status:** In-progress since 2018
- f. **Key lesson(s) learned, as relevant to the Project:** Gather broad knowledge base and support: The team is comprised of service providers, scientists, policy-makers, legal, financial and market influencers.

Scope of Services: Comprehensively develop an easy-to-use protocol building off existing market initiatives that focuses on marketable ecosystem services encompassing soil carbon, water quality and water quantity. Credits will be suitable for use in ecosystem service markets and yield economic benefits to the producer while ultimately providing a range of environmental and societal benefits. The first integrated edition of the ESM Protocol was completed in late 2018 to address three environmental attributes: greenhouse gases (GHGs), water quality, and water quantity in the Southern Great Plains. Each of these attributes will allow participating ranchers and farmers to generate saleable assets as a result of soil health improvements within their operations.

11. CONSULTANT CONTRACT STATEMENT

The Geosyntec Team, including all Team members, accepts the terms of the City's Consultant Agreement sample (Attachment 1 of the RFP).

Geosyntec has included Brooks Smith of Troutman Sanders as a team member with specific scope of work and a designated portion of the project budget. Geosyntec strongly recommends that Brooks Smith be included, as he brings unparalleled legal experience in WQT system development to the project. Geosyntec, as an engineering firm, is not licensed to practice law. Passing a legal opinion from a subcontracted attorney presents several legal and ethical issues for Geosyntec, Troutman Sanders, and the City. Troutman Sanders should be contracted directly with the City (or an alternative legally acceptable contracting mechanism) to provide legal review services for the project because that will eliminate the legal and ethical concerns facing all the parties.

12. SPECIAL REQUIREMENTS

Geosyntec has read the USEPA Notice of Award (Attachment 3) and hereby states that this proposal meets the relevant Administrative Conditions and that all Project deliverables will meet all relevant Administrative and Programmatic Conditions.

DBE PARTICIPATION

Geosyntec has partnered with Panorama to exceed the City's DBE participation goal of 1%. For this project Geosyntec is committed to a DBE goal of over 8%. For certifications, please contact us.

Geosyntec underwent an extensive DBE identification and selection process to identify a highly qualified DBE firm that will contribute substantially to the Project. This included searching the Supplier Clearinghouse and Cal eProcure databases for local DBE firms with experience in relevant fields. Geosyntec identified a small number of potential partner firms from these lists and conducted internal and external research to investigate their suitability for the team. Given their expertise and excellent reputation, Geosyntec connected with Panorama Environmental as a result of this research.

APPENDIX A: RESUMES



Lisa Austin, P.E.
Principal



Project Role(s)

Project Director

Task F Lead: Final Legal and
Regulatory Review



Specialties

Stormwater Management
Planning

Stormwater BMP Selection,
Evaluation, and Design

NPDES Permitting



Education

M.S., Civil Engineering, Southern
Illinois University at Carbondale,
IL

B.S., Environmental Engineering,
Southern Illinois University at
Carbondale, IL



Registrations & Certifications

California Professional Engineer
No. 74663

Washington Professional Engineer
No. 30370

Lisa Austin, PE has 30 years of experience in water quality and stormwater management. She has in-depth knowledge of both industrial and municipal National Pollutant Discharge Elimination System (NPDES) permitting; municipal stormwater program planning; stormwater best management practice (BMP) selection, design, and maintenance; stormwater management planning and environmental review; and total maximum daily loads (TMDL) implementation planning. Ms. Austin has been assisting the Bay Area stormwater programs and Permittees with collaborative stormwater program implementation for over a decade.

Contra Costa County Clean Water Program On-Call Technical Support, Contra Costa County Clean Water Program, Contra Costa County, California. Ms. Austin serves as project manager and technical lead assisting the Contra Costa County Clean Water Program (CCCWP) in stormwater management planning and program implementation tasks. Her ongoing tasks include assisting with PCBs and mercury TMDL implementation planning and reporting. Geosyntec conducted the technical analyses in support of the Contra Costa Watershed Stormwater Resource Plan (SWRP) and is developing the PCBs and Mercury TMDL Control Measure Plan and reasonable assurance analysis (RAA) due in 2020.

Alameda Countywide Clean Water Program On-Call Technical Support, Alameda Countywide Clean Water Program, Alameda County, California. Ms. Austin serves as project manager and technical lead assisting the Alameda Countywide Clean Water Program (ACCWP) with PCBs and mercury TMDL implementation planning, such as assisting the ACCWP Permittees with identifying, characterizing, and managing PCBs and mercury source areas and reporting on these activities and associated load reductions in compliance with the MRP. Geosyntec is conducting the countywide RAA in support of the TMDL Control Measure Plan due in 2020. Ms. Austin is facilitating the MRP 3 C.11/C.12 negotiations with MRP Permittees and Regional Water Board staff.

Clean Watersheds for a Clean Bay Final Project Report, BASMAA, Alameda County, California. Ms. Austin served as project director and technical lead assisting BASMAA in preparing the final project report for the Clean Watersheds for a Clean Bay (CW4CB) project, which evaluated a variety of potential control options to reduce mass loadings to the San Francisco Bay. Ms. Austin led preparation of the Urban Runoff Treatment Retrofits section of the report and produced the overall report and outreach materials, including creating a project website, producing a guidance document, and conducting Permittee training.



Kelly Havens, P.E.
Senior Engineer



Project Role(s)

Project Manager

Tasks A/B Lead: Meetings



Specialties

Stormwater Management
Planning

NPDES Permit and TMDL
Compliance

Water Quality Modeling and
Analysis



Education

M.S., Civil Engineering, UCLA

B.S., Engineering Geology, UCLA



Registrations & Certifications

California Professional Engineer
No. 80044

Kelly Havens, PE has 12 years of experience working on projects in the fields of water quality and green stormwater infrastructure (GSI). An experienced project manager, she has managed many teams comprised of staff and subconsultants, and coordinated, facilitated, and/or presented at meetings with large client groups, technical advisors, and stakeholders. Kelly has in-depth knowledge of planning and implementation of GSI, including managing or directing five MRP Permittee GSI Plan related projects; San Francisco Bay PCBs and mercury TMDLs and compliance efforts, including acting as a facilitator for MRP C.11/12 permit negotiations for BASMAA; and MRP alternative compliance experience.

City of Dublin GSI Technical Support, City of Dublin, California. Kelly managed City GSI related analyses, developed an Alternative Compliance Program Handbook, and is assisting in City consideration of various GSI funding strategies.

City of Walnut Creek GSI Plan, City of Walnut Creek, California. Kelly managed the GI Plan for the City of Walnut Creek. The City identified in-lieu fees as a priority GSI funding strategy; Ms. Havens is managing in-lieu fee program research.

RAAs, ACCWP and CCCWP, California. Ms. Havens serves as a technical lead for the Alameda and Contra Costa County RAAs, required as part of the MRP. She led the development of RAA methodology reports, provided technical oversight of modeling staff, and presents to regional workgroups and client groups.

San Francisco Bay Area Reasonable Assurance Analysis Guidance Document, BASMAA, Alameda County, California. Ms. Havens managed a regional project to develop a RAA Guidance Document consistent with the MRP. Kelly led PMT and TAC meetings and incorporated feedback from all parties into revisions.

Monterey Peninsula Stormwater Resource Plan, Monterey Regional Water Pollution Control Agency, Monterey, California. Ms. Havens managed a large project to develop a Stormwater Resource Plan for the Monterey Peninsula region. Ms. Havens managed two subconsultants, coordinated with a large client group, presented at Stakeholder meetings and co-led TAC meetings.

RISE: New York City Active Floodproofing Project, New York City Economic Development Corporation, New York City, New York. Kelly manages a large storm surge resiliency project involving conducting flood “Resiliency Audits” and developing floodproofing designs for small businesses. Kelly manages three subconsultants and performs outreach as part of the project.



**Ken J. Susilo, P.E.,
D. WRE, CPSWQ**
Vice President



Project Role(s)

Senior Technical Advisor



Specialties

Integrated Water Resources

Watershed Management

Water Quality Planning



Education

M.S., Civil Engineering, University
of California, Berkeley, CA

B.S., Civil Engineering, University
of California, Berkeley, CA



Registrations & Certifications

California Professional Civil
Engineer, No. C51194

Certified Professional in Storm
Water Quality, No. 0086

Diplomate, Water Resources
Engineer, No. 00281

Ken Susilo, P.E., D.WRE, CPSWQ is a Professional Engineer, Diplomate Water Resources Engineer, and Certified Professional in Water Quality. He has over 25 years of experience in planning, permitting, engineering, design, hydraulics, hydrology, computer modeling, storm water management, and integrated water resources. He has actively investigated alternative funding and alternative project delivery approaches for project and program implementation. His projects have been recognized by the American Society of Civil Engineers (ASCE), Water Environment Federation (WEF), California Stormwater Quality Association (CASQA), American Public Works Association (APWA), League of California Cities, and California Water Environment Association (CWEA). Mr. Susilo has served as an Expert Witness in cases involving storm water, hydrology, flooding, sediment fate and transport, and water quality. In 2006, Susilo was recognized as the ASCE Outstanding Civil Engineer in the Private Sector by the Los Angeles Section and State of California. He has conducted projects throughout California, the United States, and internationally in the Pacific Rim region. Mr. Susilo recently served on the WEF Stormwater Steering Committee, co-chairing the subcommittee for Technical Excellence. He is the managing Senior Principal of Geosyntec's Los Angeles office, and recently served on Geosyntec Consultants' Board of Directors.

City of Los Angeles Public Right of Way LID (PROWL) and Green Stormwater Infrastructure Ordinance and Handbook Support, City of Los Angeles, Los Angeles, CA.

Project Manager for multi-department effort to conform with 2015 City Council green streets/green infrastructure action, ordinance, and LID for public streets Handbook. Effort included strategic implementation optimization methodologies to maximize benefits and optimize implementation opportunities.

Stormwater Capture Master Plan, Los Angeles Department of Water and Power, Los Angeles, California. Project Director for the LADWP Stormwater Capture Master Plan. Plan objectives are to characterize the potential of stormwater that can be realistically and reliably captured to augment the City's water supply portfolio, looking at existing and proposed programs, projects, policies, and ordinances to identify actions and general planning.

Greater Los Angeles County Integrated Regional Water Management Plan (IRWMP), Los Angeles County, California.

Project Director for Geosyntec (as subconsultant) as technical lead for stormwater, water quality, habitat and open space analyses for the Greater Los Angeles County IRWMP update. As Project Director, Susilo guided development of new tools, metrics, and analyses to define appropriate stormwater and water quality goals for the region.



Avery Blackwell, P.E.
Senior Engineer



Project Role(s)

Task H Lead: Pilot Project Implementation



Specialties

Compliance Planning
Stormwater Project Design
Stormwater Modeling and Data Analysis



Education

M.S., Civil Engineering (Water Resources), Colorado State University, Fort Collins, CO
B.S., Civil Engineering, California State Polytechnic University, San Luis Obispo, CA



Registrations & Certifications

Registered Professional Engineer, Civil, State of California, No. 83,866

Avery Blackwell, P.E., is water resource engineer and project manager with pioneering water experience in California's public and private sectors, including planning, monitoring, analysis, modeling, design, and compliance reporting of stormwater, water supply, and recycled water projects. He has managed numerous advanced stormwater planning projects throughout California including the creation and/or implementation of Alternative Offsite Compliance Plans, Stormwater Resource Plans, IRWM Plans, and TMDL Implementation Plans. Mr. Blackwell has extensive stormwater modeling experience, as model user and developer, has led to the creation of two state-of-the-art models highlighted at recent CASQA conferences, including the Santa Barbara Countywide LPR Model and the California grant funded San Diego County Parcel BMP Load Reduction Calculator. In all his projects, Mr. Blackwell strives to create innovative and comprehensive approaches that simply address his client's complex water problems and anticipate their future needs.

Paso Robles Watershed Plan, City of Paso Robles, California. Project Manager (2019-Present). Development of a city-wide alternative compliance plan allowing development projects to meet on-site stormwater retention requirements using off-site stormwater management projects. Tasks included watershed and future development characterization, the identification, prioritization, and conceptual design of off-site projects, calculation of off-site retention volume required for future development projects, and the demonstration that off-site projects would maintain watershed processes at the same level as required on-site projects.

City of Santa Barbara Stormwater BMP Guidance Manual Update, City of Santa Barbara, California. Project Manager (2019-Present). Revised stormwater BMP design worksheets to simplify the workflow and add additional relevant BMP types. Modified the BMP sizing methodologies to align with Central Coast Regional Water Quality Control Board sizing requirements.

Santa Barbara County-Wide Stormwater Resource Plan, Santa Barbara County Water Agency, Santa Barbara, California. Project Manager (2017-2019). The Santa Barbara County-wide Integrated SWRP was developed for nine cooperating entities in Santa Barbara County. Tasks included Technical Advisory Committee and stakeholder coordination, leveraging existing reports and datasets to aid in the identification of locations where BMP implementation should be prioritized, characterizing the watersheds (as required by SWRP Guidelines), identifying parcels for BMP implementation through a comprehensive parcel screening and prioritization process and developing a preliminary design (~30%) for the top prioritized projects.



Lisa Kanner Welsh,
Ph.D, QISP
Scientist



Project Role(s)

Task G Lead: Final Document Review

Task I Lead: Grant Reporting



Specialties

Urban Stormwater Management

Municipal TMDL and Trash Management

Water Quality Assessments



Education

Ph.D., Geoscience, University of Massachusetts, Amherst, MA

M.S., Geoscience, Brown University, Providence, RI

B.A., Geology, Carleton College, Northfield, MN



Registrations & Certifications

40-Hour OSHA HAZWOPER 29 CFR 1910.120(e)(3) Training

American Red Cross First Aid and CPR Certification

Qualified Industrial Stormwater Practitioner (QISP), California, Number 00881

Lisa Welsh, Ph.D has over six years of experience in environmental consulting. She applies her technical background in geoscience to water resources, water quality, and stormwater management projects. She is experienced in stormwater and green infrastructure planning projects, including managing best management practice (BMP) feasibility studies, sizing, and conceptual design. Dr. Welsh is a Qualified Industrial Stormwater Practitioner (QISP) under the California Industrial General Permit and assists industrial facilities with stormwater pollution preventing planning and stormwater sampling. Dr. Welsh has an additional seven years of experience in climate change and remote sensing research and has led or contributed to more than 10 peer-reviewed publications.

City of Hayward Green Infrastructure Plan, City of Hayward, Hayward, California. Dr. Welsh served as the assistant project manager to provide support to the City of Hayward on their Green Infrastructure (GI) Plan Framework. The project included the identification and prioritization of potential GI public retrofit projects as well as calculations to estimate polychlorinated biphenyls (PCBs) load reductions achieved by existing and planned GI retrofit projects.

City of Walnut Creek Green Infrastructure Plan, City of Walnut Creek, Walnut Creek, California. Dr. Welsh served as the assistant project manager to provide support to the City of Walnut Creek on their GI Plan Framework. She also served as a technical lead in supporting the City on the identification and prioritization of potential GI public retrofit projects as well the development of conceptual plans for top priority site locations. The project also included calculations to estimate PCBs load reductions achieved by existing and planned GI retrofit projects.

Monterey Peninsula Stormwater Resource Plan, Monterey Regional Water Pollution Control Agency, Monterey, California. Dr. Welsh served as an assistant project manager and technical lead to develop a Stormwater Resource Plan (SWRP) for the Monterey Peninsula region. The project included identification of over 2,000 stormwater capture opportunities, including more than 200 water recovery project opportunities. In addition to technical components, the project required management of significant stakeholder and public involvement. Dr. Welsh also served as a technical lead of an internally-funded, add-on research project to apply future climate scenarios from downscaled climate model projections and assess the impact on water resource and recovery projects in the region.



Maxwell Dugan,
P.E., QSD, CPESC-IT
Project Engineer



Project Role(s)

Task C: Literature Review

Task E: Water Quality Trading System



Specialties

Stormwater BMP Design

Hydromodification

Regulatory Compliance

Compliance Planning



Education

M.S., Civil and Environmental Engineering, Stanford University

B.S., Civil Engineering, University of Nevada, Reno



Registrations & Certifications

Registered Civil Engineer, California, No. C 85985

Qualified SWPPP Developer, California, No. C 85985

CPESC-IT, No. 8035

OSHA 24 Hour HAZWOPER

OSHA 10 Hour Outreach

Maxwell Dugan is a registered civil engineer with over five years of professional experience including Stormwater BMP design, hydromodification analysis and mitigation, regulatory compliance, stormwater program development, erosion and sediment control, hydrologic and hydraulic modeling, water quality sample collection, and field oversight and coordination. Since joining Geosyntec, typical project contributions have included design, coordination, inspection, and oversight of Best Management Practice (BMP) installations, watershed analysis and assessments including post-fire hazard identification and mitigation in burned watersheds, continuous and event based hydrologic modeling, 1D and 2D hydraulic modeling, stormwater BMP analysis and design, regulatory compliance audits, and development of programmatic stormwater guidance and manuals including the current Model BMP Design Manual for the San Diego Region and the City of San Diego's Stormwater Alternative Compliance Program.

Offsite Storm Water Alternative Compliance-Phase II, San Diego County, California. Geosyntec was selected by the City of San Diego to lead an effort to develop Phase II of the City's Offsite Storm Water Alternative Compliance Program, which would allow Priority Development Project applicants and/or independent entities to implement, fund, or partially fund an offsite alternative compliance project through either an in-lieu fee or credit trading program. Geosyntec is currently in the process of developing the Phase II program. Mr. Dugan's tasks have included development of work plans for both an in-lieu and credit trading program, and preparation of material for, and participation in, the City's workgroup and Technical Advisory Committee established to oversee development of the Phase II program.

Alternative Compliance Handbook & Implementation Plan, City of Dublin, California. Geosyntec was selected by the City of Dublin (SF Bay Area) to identify and outline options for a potential Alternative Compliance program as allowed under the San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP; Order No. R2-2015-0049). Mr. Dugan serves as a technical lead on the project and was one of the primary contributors to the Alternative Compliance Handbook developed through this project. Geosyntec continues to support the City of Dublin by evaluating various program options and planning considerations needed to develop an Alternative Compliance Program.

Model BMP Design Manual, San Diego County, California. Mr. Dugan was part of the Geosyntec team that developed the 2016 Model BMP Design Manual for the San Diego County Copermittees. The manual provides updated guidance, performance standards, and Best Management Practice (BMP) requirements based on the 2013 MS4 Permit (Order No. R9-2013-0001) and permit amendments.



Elai Fresco, P.E.,
QSP/QSD
Senior Staff Engineer



Project Role(s)

Task E: Water Quality Trading System

Task H: Pilot Project Implementation



Specialties

Stormwater Management and Planning

Water Quality Modeling and Analysis



Education

M.S., Civil and Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA

B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA



Registrations & Certifications

40-Hour OSHA HAZWOPER 29 CFR 1910.120(e)(3)I Training

Professional Civil Engineer, California, Number 89914

Qualified Industrial Stormwater Practitioner No. 00707

Qualified SWPPP Developer (QSD) and Qualified SWPPP Practitioner (QSP) No. 27076

Elai Fresco, P.E. has four years of experience and a strong background in civil and environmental engineering, water resources engineering, and water quality, which he applies to urban stormwater management projects. He is a qualified stormwater developer and practitioner and provides stormwater management for both industrial and construction sites. Mr. Fresco also supports stormwater management and planning including best management practices (BMP) design and implementation.

Stormwater Resource and Green Infrastructure Plans, Multiple Clients, Multiple Cities and Counties, California.

California Proposition 1 was approved in 2014, authorizing \$200 million in bonds for multiple benefit stormwater management projects. To be eligible for these bond funds, projects must be identified in a Stormwater Resource Plan (SWRP). Mr. Fresco has contributed to the development of SWRPs for the City of Dublin, Marin County, Alameda County, Contra Costa County, and Monterey County (which included an additional water recovery study). Mr. Fresco conducted geographic opportunity analyses using public hydrologic, geotechnical, and geophysical data to identify thousands of potential stormwater management (e.g., green infrastructure) projects. Mr. Fresco then continued to work with public and private stakeholders to develop detailed green infrastructure plans, including conceptual designs and planning reports.

Clean Watersheds for a Clean Bay (CW4CB), Confidential Client, San Francisco Bay Area, California.

Mr. Fresco compiled and analyzed field and laboratory data produced over hundreds of sediment and stormwater runoff sampling events at locations across the San Francisco Bay Area as part of an interagency effort to reduce polychlorinated biphenyl (PCB) and mercury pollution in the San Francisco Bay. Mr. Fresco produced geographic information system (GIS) figures, data tables, and data analyses summarizing the results of the sampling efforts, which included source property identification, operations and maintenance (O&M) enhancements, and urban runoff treatment retrofits. These analyses supported the referrals of three PCB-contaminated sites to the San Francisco Regional Water Quality Control Board, as well as discussions of the effectiveness of O&M.



Thomas Wallace
Senior Consultant



Project Role(s)

Task E: Water Quality Trading System



Specialties

Water Quality Trading
NPDES Permit Services
TMDL Evaluation
Watershed Assessment and Monitoring
Water Quality-based Effluent Limits
Industrial and Municipal Wastewater



Education

M.S., Environmental Health Science, University of Kansas School of Civil Engineering, Lawrence, KS

B.S., Environmental Science, University of Arkansas, Fayetteville, AR

Thomas Wallace has directed municipal and industrial wastewater process projects for over 30 years. He is a Senior Consultant in our Missouri office, where he specializes in NPDES permit negotiations and receiving stream assessments. He has provided consulting, regulatory negotiations and management services for over 200 municipal and industrial wastewater systems. Mr. Wallace has managed numerous water quality, antidegradation, TMDL review and wasteload allocation projects that typically have included waterbody use designation confirmation, water quality and stream channel monitoring, wasteload allocation modeling, and effluent limits development. Mr. Wallace began his consulting career with the firm in 1998. Prior to joining Geosyntec, he served as Director of Wastewater Utilities for Jefferson City, Missouri and Environmental Engineer for Clearwater Paper in McGehee, Arkansas.

Missouri Innovative Nutrient Trading Project. Mr. Wallace served as project manager for the Missouri Innovative Nutrient Trading Project (MINT). The project was a multi-year effort funded by the US Department of Agriculture, the Missouri Natural Resources Conservation Service and the St. Louis Metropolitan Sewer District. The project provided the basis for the subsequent Missouri Department of Natural Resources nutrient trading policy for “point-to-point source” and “point to non-point source” water quality trading.

TMDL Assessment and Services, City of Bentonville, Arkansas. Mr. Wallace served as project manager to assist the City of Bentonville to assess the Town Branch TMDL. The Town Branch TMDL includes total phosphorus allocations for wastewater treatment plant effluent and urban stormwater discharges. The project consisted of planning, monitoring and assessment services in addition to discussions with the Arkansas Department of Environmental Quality and EPA Region 6.

Antidegradation Review, Fishing River Sewage Treatment Plant, Kansas City Water Services Dept., Kansas City, Missouri. In coordination with Burns and McDonnell Engineers, Mr. Wallace served as project manager for the KC Fishing River Sewage Treatment Plant upgrade antidegradation and water quality review. The project involved negotiating NPDES permit requirements with the Missouri Department of Natural Resources. A hydraulically calibrated dissolved oxygen and ammonia model was developed to derive effluent limits.



MARK S. KIESER
SENIOR SCIENTIST / PRINCIPAL
Kieser & Associates, LLC

AREAS OF EXPERTISE: Water Quality Trading, Surface Water Quality Assessment & Modeling, Non-point Source Pollution Assessment & Modeling, Lake and Watershed Management, Environmental Markets, Ecological Modeling, NPDES Permitting, Waste Load Allocation, Sediment-Water Interactions

Mr. Mark Kieser, Senior Scientist and Principal, has been a leader and pioneer in water quality trading program and policy development since 1995. He is nationally and internationally recognized for his trading expertise and leadership on a variety of market-based projects. These focus on: watershed, state-wide and regional trading program development; agricultural credit banking schemes; urban stormwater trading approaches; electronic water quality trading registries and infrastructure; and, development of ecosystem service markets. Mr. Kieser led one of five EPA supported water quality trading projects in the U.S. in the mid-1990s and served on the state of Michigan Water Quality Trading Workgroup that developed the framework for Michigan's water quality trading rules; the first such rules in the U.S. Since 2001, Mr. Kieser has been serving as the Acting Chair of the Environmental Trading Network. The Network is a non-profit clearinghouse for water quality trading program information. (<http://www.envtn.org/>)

EDUCATION: - Master of Science, Biological Sciences (Emphasis: Water Resources)
Michigan Technological University, Houghton, Michigan (1988)
- Bachelor of Science, Biological Sciences (Emphasis: Aquatic Ecology)
Wittenberg University, Springfield, Ohio (1982)

SELECTED WATER QUALITY TRADING POLICY EXPERIENCE:

- Protocol Development for National Ecosystem Service Market Credits from Agricultural Working Lands for Soil Carbon, Water Quality and Water Quality including Water Quality Model Quantification and Pilot Testing: Ecosystem Service Market Consortium, <https://ecosystems-servicesmarket.org>, 2018-present.
- Development of a Basin-wide Nutrient Trading Program for the DuPage River for Crediting Stream Restoration Biological Scoring: DuPage River Salt Creek Workgroup, Naperville, IL with TetraTech, Inc., 2017-present.
- Bi-national/multi-jurisdictional Water Quality Credit Trading Framework Development for the Western Basin Lake Erie under USDA Conservation Innovation Grant: Great Lakes Commission, Ann Arbor, MI, 2016-2018.
- Development of an Iowa Nutrient Reduction Exchange and Water Quality Trading Framework for Ag Phosphorus and Nitrogen Reductions: Iowa League of Cities with Troutman Sanders under USDA Conservation Innovation Grant, 2015-present.
- National WQT Support for the Dairy Industry including development of a Draft Phosphorus Protocol for VT Discharger Compliance, and Clearinghouse Trading Structures for WI TMDL Compliance Options: Newtrient, LLC, Chicago, IL, 2015-2019.
- Feasibility Study for Market-based Environmental Programs including Water Quality Trading for Phosphorus in Lake Champlain, VT: VT Dept. of Environmental Quality, Montpelier, VT, with Tetra Tech, 2015.
- Development of Farmer-to-Farmer and Farmer to Stormwater Water Quality Trading Options with Ag TMDL Compliance Scoring in Lake Elsinore/Canyon Lake for Groundwater Nitrates and Surface Water Nitrogen Loads: Western Riverside County Agriculture Coalition, San Jacinto CA with Tetra Tech, 2014-2018.
- Development of a Regional Board-approved WQT Program and Ag Crediting Project Development for Santa Rosa's Zero Discharge Requirement to the Laguna de Santa Rosa: City of Santa Rosa, CA, 2010-2015.
- Feasibility Study for Market-based Environmental Programs including MS4 Water Quality Trading for Phosphorus in Lake Champlain, VT: VT Dept. of Environ. Quality, Montpelier, VT, with Tetra Tech, 2015.
- Feasibility Assessment of Water Quality TMDL Compliance Trading by WWTFs and MS4s in the Lower Fox River for Sediments and Nutrients, Green Bay, WI: Great Lakes Commission, Ann Arbor, MI, 2014-2015.
- WQT Feasibility Assessment and Subsequent Development of a Municipal Phosphorus Offset Program for New Development Surrounding Ontario's Largest In-land Waterbody, Lake Simcoe: XCG Consultants and Lake Simcoe Conservation Authority, Ontario, Canada, 2008-2010, 2012-2014.
- Quantification Protocol Development for Nutrient Crediting at Water Quality Trading Banks in non-Chesapeake Bay Waters of Southern Virginia: Resource Environmental Solutions, LLC, Richmond, VA, 2015.
- Review of Montana Draft WQT Policy (2010) and Business Case Assessment for WWTP Nutrient Trading Compliance: Montana Dept. of Environmental Quality with Morrison-Maierle Engineers, 2014.

**DOUGLAS McLAUGHLIN, PH.D.**

SENIOR SCIENTIST / DIRECTOR OF ENVIRONMENTAL ENGINEERING
Kieser & Associates, LLC

AREAS OF EXPERTISE: Water Resources Management, Water Quality Criteria Development, Ecological Risk Assessment, Surface Water Nutrient Management, NPDES Permitting, Uncertainty Analysis, Water Quality Modeling, Bayesian Network Models, TMDL Development, Cause-effect Evidence, Water Quality Monitoring Strategies, Statistical Methods, Sources and Fate of Polychlorinated Biphenyls (PCBs)

Dr. Douglas McLaughlin, Senior Scientist and Environmental Engineering Division Manager, has over 30 years of experience as a water resources scientist and practitioner. Over the past 15 years, Dr. McLaughlin has focused his research and technical activities on improving quantitative approaches used in support of water resources management and decision-making. Prior to this, he completed work between 1997 and 2003 to design and conduct field and data analyses to assess the status and trends of PCB contamination in water, sediment, and fish to support the evaluation of alternatives for sediment remediation in the Fox River, Wisconsin on Behalf of the Fox River Group of Companies. His work includes using statistical models to describe biological responses to multiple ecosystem stressors, evaluating and refining methods used to derive numeric water quality criteria for nutrients and other constituents from field data and applying computer simulations to estimate uncertainties in aquatic life water quality criteria derived from laboratory toxicity data. He has published several articles in the peer-reviewed literature and given numerous presentations at scientific and stakeholder meetings. He frequently interacts with scientists and decision-makers from regulatory agencies and other stakeholder groups. In addition, he has served on several state and federal regulatory agency science and technical advisory committees, most recently as a member of the Illinois Nutrient Science Advisory Committee, appointed by Illinois Environmental Protection Agency and Illinois Department of Agriculture to make recommendations regarding the development of numeric nutrient water quality standards to protect aquatic life in Illinois flowing waters. He has served for many years as a member of the Advisory Committee on Water Information (ACWI) and the National Water Quality Monitoring Council.

EDUCATION: - Ph.D., Institute for Environmental Studies, University of Wisconsin – Madison (1994) Thesis Title: “Natural and Induced Transformations of Polychlorinated Biphenyls in Sediments”
- M.S., Aquatic Biology, University of Wisconsin - Green Bay (1985)
- B.S., Biology, University of Wisconsin - Green Bay (1983)

SELECTED TRADING AND TECHNICAL/POLICY EXPERIENCE:

- Development of an Approach to Establish the Scientific Basis for a Stream Restoration Crediting Protocol Using Field Data to Assess Stressor-Response Relationships and Build Ecosystem Response Models: DuPage River Salt Creek Workgroup, Naperville, IL with Tetra Tech, Inc. 2018-present.
- Protocol Development for Ecosystem Service Market Credits from Agricultural Working Lands for Soil Carbon, Water Quality and Water Quality including Model Uncertainty Analysis and Pilot Testing: Noble Research Institute, Ardmore, OK and Ecosystem Service Market Consortium, Washington, D.C., 2018-present.
- Advancing Systematic and Fundamental Changes in Agricultural Water Resources Management with Edge-of-Field Monitoring to Assess Soil Health, P Recovery with Tile Drain Filters, and Circular Economies: \$1.1M Grant from the Great Lakes Protection Fund, Evanston, IL, 2018-present.
- Development of a Clearinghouse Framework for Phosphorus Reduction Programs in Wisconsin including WQT, Adaptive Management and Multiple Discharger Variance: Newtrient, LLC, Chicago, IL, 2018-2019.
- Comparison of the Nutrient Tracking Tool Output to Region 5/DRP Calculator Results for ‘Erie P Market’ Agricultural Pilot Crediting Sites: Great Lakes Commission, Ann Arbor, MI, 2018.
- Ecosystem Modeling Support to Ohio Environmental Protection Agency in Development of Quantitative Tools for Managing Water Quality and Macroinvertebrate Community Health in Headwater Streams, 2017-2018.
- Evaluation of Predictive Performance of Biotic Ligand Models Used to Predict Metals Toxicity to Aquatic Life and Support Site-Specific Aquatic Life Water Quality Criteria for Metals in Support of Pulp and Paper Industry Science Initiatives, 2014-2015.
- Development of Quantitative Approaches for the Analysis of Field Data to Derive Numeric Nutrient Criteria and Estimate the Probability of Adverse Biological Community Impacts in Support of Pulp and Paper Industry Science Initiatives, 2011-2014.
- Science Support to the Pulp and Paper Industry for Water Quality Criteria Development and Evaluation, Including the Assessment of Methods for Criteria Derivation and Uncertainty Characterization, 2003-2018.



DAVID T. CHEN
Project Scientist
Kieser & Associates, LLC

AREAS OF EXPERTISE: Environmental Markets Development, Environmental Markets Analysis, Conservation Finance, Water Quality Trading, Conservation and Mitigation Banking Policy, Habitat Suitability Modeling, Resource Economics and Policy, Stormwater Management

Mr. Chen received his Bachelor of Science degree from the University of California, Riverside and his Master of Environmental Management from Duke University's Nicholas School of the Environment. Mr. Chen has been working in the intersection of environmental policy and market-based approaches and specializes in conservation finance and environmental markets. Prior to joining K&A in 2017, Mr. Chen served in the Obama Administration's Council on Environmental Quality and worked at the Nicholas Institute for Environmental Policy Solutions' Ecosystem Services Program. Prior to his Master's work at Duke, Mr. Chen worked as a professional environmental consultant leading stormwater pollution prevention and fugitive dust management projects for residential and commercial development across Southern California. Mr. Chen is currently Project Scientist with K&A and working on the development of water quality trading programs, habitat markets and conservation finance mechanisms. His areas of expertise include: wetland & stream mitigation and conservation banking; habitat and water quality trading; conservation finance; resource economics and policy; endangered and threatened species management, and; stormwater management.

EDUCATION: - Master of Environmental Management, Environmental Economics and Policy
Duke University | Nicholas School of the Environment, Durham, North Carolina (2017)
- Bachelor of Science, Environmental Sciences
University of California, Riverside, Riverside, California (2012)

SELECTED EXPERIENCE:

- Ecosystem Service Market Credits Protocol Expansion for Various U.S. Agricultural Production Systems: Ecosystem Services Market Consortium, LLC, Washington, D.C., September 2019-present.
- Protocol Development for Ecosystem Service Market Credits from Agricultural Working Lands in the Southern Great Plains: Noble Research Institute, LLC, Ardmore, OK, 2018.
- Analysis of Quantification Methodologies for Water Quality and Water Quantity Interventions for Lake Piuray, Peru: Forest Trends, Washington, D.C., January 2019-present.
- Development of an Environmental Assets Clearinghouse Structure in Wisconsin: Newtrient, LLC, Chicago, IL, November 2017-January 2019.
- Development of Iowa's Nutrient Reduction Exchange Registry and Integration into USACE's RIBITS Environmental Markets Tracking Tool: Iowa League of Cities under a USDA Conservation Innovation Grant, Des Moines, IA, November 2017-2019.
- Establishing Pollinator Habitat through a Credit Program on Permanently Protected Farms in Michigan: American Farmland Trust under a USDA Conservation Innovation Grant, Washington, D.C., OH, November 2017-present.
- Advancing Systematic and Fundamental Changes in Agricultural Water Resources Management with Edge-of-Field Monitoring to Assess Soil Health, P Recovery with Tile Drain Filters, and Circular Economies: \$1.1M Grant from the Great Lakes Protection Fund, Evanston, IL, 2017-present.
- Establishing Streambank Restoration Quantification Methodologies for the Iowa Nutrient Reduction Exchange: Iowa League of Cities, Des Moines, IA with Troutman Sanders, LLC, 2017-2018.
- Development of a Dairy Quantification Protocol for Phosphorus in Vermont: Newtrient, LLC, Chicago, IL, November 2017-2018.
- Stormwater Management for Mayflower Dairy: CJD Farm Consulting, Inc., Grand Rapids, Michigan, November 2017-July 2018.
- Conservation Banking Report: Electric Power Research Institute, Lake Forest, California, August 2017.
- Conservation and Mitigation Banking Study: Environmental Defense Fund, Lake Forest, California, June 2017.
- Development of Council on Environmental Quality Implementation Guidance for Presidential Memorandum M-16-01: The White House Council on Environmental Quality, Washington, D.C., August 2016.



Jill Bicknell, M.S., P.E.

Managing Engineer
jcbicknell@eoainc.com

Areas of Expertise

Stormwater Program Management
LID/Green Infrastructure
Hydromodification Management
NPDES Permit Compliance
Watershed Planning
Water Quality and Hydrology

Years of Experience

EOA: 25 Years
Prior to EOA: 14 Years

Education

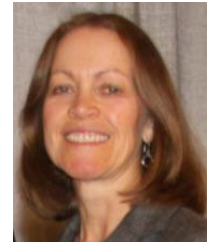
M.S./Water Resources Engineering
Stanford University
B.S./Civil Engineering
University of Vermont

Registration/Certification

Professional Engineer, CA

Overview

Ms. Bicknell is a water resources engineer who has worked in the field of stormwater quality management and permit compliance for over 25 years, specializing in assistance to Phase I and Phase II NPDES-permitted municipalities with implementation of LID techniques, green stormwater infrastructure (GSI) planning, stormwater treatment, and hydromodification management. She has served as the Assistant Program Manager for SCVURPPP since 1996, providing program management and technical assistance. She specifically provides technical support for "C.3" compliance, including developing and updating the SCVURPPP C.3 Stormwater Handbook, conducting annual C.3/LID/GSI workshops, providing guidance on alternative compliance, and acting as an on-call technical resource for Permittee staff. She led SCVURPPP's efforts to develop countywide tools for GI planning, including GSI Plan templates, GI funding and implementation mechanisms guidance, and a GSI Handbook of design concepts, details and specifications. She also assisted Santa Clara County agencies with development of local GI Plans. She is currently leading regional efforts on GSI implementation and negotiations with regulators on Municipal



Regional Permit requirements for GSI and alternative compliance.

Relevant Project Experience

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) Municipal Stormwater Management and NPDES Permit Compliance – SCVURPPP, 1996 - ongoing

As described above, Ms. Bicknell has served as Assistant Program Manager for SCVURPPP, a program to assist 15 agencies in complying with their NPDES stormwater discharge permit requirements since 1996. She provides Program management and technical support to member agencies, conducts training workshops, and assists preparation of the Program's annual reports, budgets, and work plans. Her particular focus has been guidance, technical support and training related to Provision C.3 compliance, LID and GSI.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Municipal Stormwater Management and NPDES Permit Compliance - SMCWPPP, 2009-ongoing

Ms. Bicknell assists SMCWPPP with guidance and technical support on C.3 compliance and stormwater controls and LID measures for new/redevelopment projects, including development of and updates to the C.3 Technical Guidance Manual; conducting annual C.3/LID/GSI workshops; support for the New Development Subcommittee (NDS) and on-call technical assistance to permittees for C.3, LID, and hydromodification management issues.

Development of Green Stormwater Infrastructure Plans – Various Municipalities, 2017-2019

Ms. Bicknell led the development of GSI Plans for 12 cities in Santa Clara County for compliance with Provision C.3.j of the Bay Area Municipal Regional Stormwater Permit (MRP). She also worked as part of a consultant team to develop GSI Plans for the City of San Jose, the County of San Mateo, and three cities in San Mateo County. Tasks included: identifying potential GI projects and locations; developing a tracking methodology; updating related municipal plans; identifying funding options; compiling the GSI Plan; and assisting with outreach to city committee(s), city councils, and the public.

Santa Clara Basin Stormwater Resource Plan -- SCVURPPP and Valley Water, 2017-2019

Ms. Bicknell was the project manager for SCVURPPP, working with Santa Clara Valley Water District staff, to develop a Storm Water Resource Plan (SWRP) for the Santa Clara Basin in Santa Clara County.



Peter Schultze-Allen, CPSWQ, QSD/QSP, RQP, LEED AP

Senior Scientist

pschultze-allen@eoainc.com

Areas of Expertise

Green Stormwater Infrastructure/ LID
Zero Waste/ Zero Litter Program/Policy
Municipal Environmental Policy
Bike-Ped Policy (Active Transportation)
Urban Forestry Program Development
Sustainable Landscaping
Stormwater Program Management
Commercial/Industrial Inspection
Construction Inspection (C.3 and C.6)
Green Building
Climate Action Planning

Years of Experience

EOA: 6 Years
Prior to EOA: 25 Years

Education

B.A./Cognitive Science
University of Rochester – 1988

Registration/Certifications

- CPSWQ
- QSP/QSD
- LEED-AP™
- RQP - Rescaped Qualified Professional

Overview

Peter specializes in the development of programs and policies for: green stormwater infrastructure (GSI), alternative compliance, zero waste/zero litter, complete streets, sustainable landscaping, and urban forestry practices. With over fifteen years of experience in planning, reviewing, implementing, inspecting and monitoring the design, construction and maintenance of green stormwater control measures, and urban Bay-Friendly landscapes, he brings the skills needed to assist municipal staff in the development and implementation of GSI Plans and compliance with Municipal Regional Permit (MRP) requirements. Peter provides GSI, Low Impact Development and trash-related technical assistance and program support to the **Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)**, and **San Mateo Countywide Water Pollution Prevention Program (SMCWPPP)**. A key member of EOA's GSI team, he helps develop guidance for GSI implementation and planning. He currently is working on integrating GSI and urban forestry and alternative compliance projects in the Bay Area. His past experience includes coordinating the environmental programs for the City of Emeryville from 2002 to 2013 including the implementation of the City's award-winning dense, urban Bay-Friendly GSI program and the integration of those policies into related municipal plans and ordinances.



Relevant Project Experience

Alternative Compliance – City Center Realty Partners, LLC: 2016-present

CCRP, a large Bay Area private property developer, contracted with EOA to assist in the development of an alternative compliance proposal for the multi-phase Marketplace housing and commercial project in the City of Emeryville. Peter led a team of engineering and legal consultants who worked collaboratively with the developer and municipal staff to design win-win options for off-site stormwater treatment for the Marketplace project. The team used factors such as land use; pollutant loading; integration with cyclist and pedestrian projects; existing stormwater infrastructure; utility systems; on-street parking impacts; roadway design; and urban forestry goals to prioritize and select appropriate green street sites for the developer to construct in the public right of way. The team then negotiated an appropriate financial calculation for a lump sum payment for the estimated treatment system life cycle maintenance costs to be made to the city. The payment calculation used a present day value formula with cost factors for: Bay-Friendly landscaping maintenance per square foot of stormwater treatment area, a growth rate, interest rate and a 30 year term. The City Council approved the concept in September of 2017. The sites are under construction. Peter helped create a negotiation process and atmosphere between City staff and the client that was collaborative and beneficial to all parties.

GSI Plan Development – City of Menlo Park, County of San Mateo, City of San Jose and others: 2019

Peter was the Team lead for the development of the GSI Plan for Menlo Park and assisted with the GSI Plans for the County of San Mateo, County of Alameda, and the Cities of San Jose, San Bruno and San Mateo.



Lisa D. Sabin, D.Env., M.S.

Senior Scientist

ldsabin@eoainc.com

Areas of Expertise

Water and Air Quality Assessment
Mercury TMDL Compliance
PCBs TMDL Compliance
Stormwater Monitoring
NPDES Permit Compliance

Years of Experience

EOA: 8 Years
Prior to EOA: 8 Years

Education

D.Env./Environmental Science and
Engineering
University of California, Los Angeles
M.S./Environmental Health Sciences
University of California, Los Angeles
B.A./Chemistry
San Jose State University

Dr. Sabin has 16 years of experience developing, implementing and managing water quality monitoring and assessment projects. She currently assists San Francisco Bay Area municipal agencies with stormwater management, pollutant control programs and permit compliance. Dr. Sabin develops and implements both desktop and field-based projects designed to evaluate the mercury and PCBs load reduction effectiveness of various stormwater control measures. She developed BASMAA's Mercury and PCBs Load Reduction Accounting Tool as a companion to BASMAA's Interim Accounting Methodology for TMDL Loads Reduced, and is currently working to update that methodology. For five years, Dr. Sabin assisted BASMAA with management of the Clean Watersheds for a Clean Bay project (CW4CB), a \$7M project funded by a grant from USEPA that evaluated various stormwater BMPs as part of implementing the Bay PCB and mercury TMDLs. Prior to joining EOA, Dr. Sabin implemented a research program on atmospheric deposition



and impacts on stormwater and receiving water quality at the Southern California Coastal Water Research Project (SCCWRP).

Relevant Project Experience

Bay Area Storm Water Management Agency Association (BASMAA) Mercury and PCBs Load Reduction Accounting, 2016, and 2018-present

Dr. Sabin developed BASMAA's Mercury and PCBs Load Reduction Accounting Tool and the associated guidance document that was designed to assist Permittees and Stormwater Programs in documenting progress towards achievement of load reduction of mercury and PCBs required by the Municipal Regional Stormwater Permit. She is currently assisting BASMAA in developing an updated version of the accounting methodology for source controls.

BASMAA POC Monitoring for Source Identification and Management Action Effectiveness, Bay Area, 2017 – 2019

Dr. Sabin served as technical lead responsible for developing and implementing monitoring projects to satisfy municipal stormwater NPDES permit requirements and inform development of required Reasonable Assurance Analyses on behalf of BASMAA member agencies. The studies evaluated PCBs in drain infrastructure caulk and the pollutant removal effectiveness of stormwater BMPs.

BASMAA Clean Watersheds for a Clean Bay (CW4CB), 2011 – 2017

Dr. Sabin served as assistant project manager of BASMAA's CW4CB project designed to implement mercury and PCBs TMDL requirements by evaluating a variety of potential control options to pollutant loads in urban stormwater runoff to the Bay. The project was funded by an EPA San Francisco Bay Water Quality Improvement Fund grant. Dr. Sabin ensured that all grant invoicing and reporting requirements were met, including developing quarterly and final project reports.

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) NPDES Permit Compliance, and San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) NPDES Permit Compliance, 2011 - ongoing

Dr. Sabin has assisted SCVURPPP and SMCWPPP to comply with municipal regional stormwater permit provisions requiring stormwater control measure testing, implementation and reporting.

Southern California Coastal Water Research Project (SCCWRP), 2002 - 2010 – Scientist

Designed and implemented a research program on atmospheric deposition and impacts on water quality in southern California watersheds and the coastal ocean.

Tania Treis, Principal



Tania brings a broad knowledge of CEQA, NEPA, and the regulatory processes that guide the projects and programs that she leads. She has managed the preparation of hundreds environmental studies including permitting due diligence, environmental programs, plans of development and operation, ISs, EIRs, EAs, and EISs. She has focused on the permitting of complex water, natural resource planning, energy, and infrastructure projects over the last 17 years, with experience on project in the rural environment. Tania excels at the definition of projects for the permitting process and proactive engagement with team members. She has worked on the preparation of all sections of CEQA and NEPA documents. Tania is a co-owner and Principal at Panorama where she oversees company operations including the financial, administrative, and information technology.

Marin Municipal Water District, Biodiversity, Fire, and Fuels Integrated

Tania managed the preparation of the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP), as well as a previous version of the plan, to establish vegetation management techniques on more than 22,000 acres of land. The first iteration of the plan proved to be controversial due to MMWD's inclusion of herbicides as a vegetation management tool. Tania led four public workshops between the two versions of the plan and presented the BFFIP and EIR findings to the MMWD Board. Tania designed and organized the public meetings and worked closely with MMWD staff to ensure that the BFFIP and EIR adequately addressed public concerns. MMWD adopted the BFFIP in the fall of 2019.

Alameda-North Bay Farm Island

The project involved three Bay Estuary pipeline crossings from the City of Oakland into the City of Alameda. Tania provided client and agency coordination, public outreach, and direction for the preparation of an EIR. She provided the direction and review of scoping materials, the outlines for the technical studies for the project, and provided guidance to staff preparing the EIR sections.

Midpeninsula Regional Open Space District Wildfire Resiliency Program

Tania, as Project Manager, is assisting in the development of the Wildfire Resiliency Program for over 65,000 acres of land on the San Francisco peninsula. Her responsibilities involved public, agency, and stakeholder outreach during the development of the Program. Tania designed and organized three public outreach workshops to share information about the Program and obtain stakeholder feedback on the scope of the Program. Tania is managing the preparation of the Program EIR and will implement public meetings during the Draft EIR review period. All comments will be addressed in the Final EIR.

Marin Municipal Water, Ross Reservoir Slide Repair IS/MND and Permitting,

Tania is the Project Manager for this emergency landslide repair project. Tania assisted MMWD in determining potential impacts and agencies and stakeholder groups that should be consulted regarding the project. She attended meetings with key stakeholder groups, including the Friends of Corte Madera Creek, to present the project and to hear concerns from the group. Tania worked with MMWD to ensure that construction of the project would address the concerns of the public.

HIGHLIGHTS

- Deep understanding of CEQA/NEPA, and resource permitting
- Frequent expert speaker for groups such as AEP and San Francisco Bar Association

EDUCATION

- M.S., Geology, San Jose State University, 2011
- M.A., Biology, University of Pennsylvania, 2001
- B.A., Mathematical Biology, University of Pennsylvania, 2000

Coursework: Advanced coursework in ecology, statistics, geomorphology, geology

Scholarships and Awards: University Scholar

PROFESSIONAL QUALIFICATIONS

- Wetland Delineation Training Program. 38-Hour, fulfilling U.S. Army Corps of Engineers Wetland Delineation Training Requirements
- Geographic Information Systems Analyst Certificate Program, Foothill College

MEMBERSHIPS AND AWARDS

- Association of Environmental Planners (AEP) Member
- Architecture and Engineering Business Leaders

Nicholas Dewar, Facilitator



Nicholas Dewar has 30 years of experience designing and implementing collaborative processes and building consensus. He has provided stakeholder engagement, public outreach, mediation of community disputes, and design and facilitation of consensus building processes. His work includes interagency, inter-jurisdictional, and stakeholder discussions dealing with projects that generate controversy including water treatment, recycled water, desalination, highway, railway, airport and waterway infrastructure as well as public policy issues covering the impacts of climate change, the impacts of infrastructure on wildlife, flood control, Superfund sites, the appropriate uses of public land, public health and military base conversions. He has designed and implemented communications and public outreach programs including situation assessments, outreach plans, outreach materials, and various types of in-person and Web-based public forums. He has facilitated in-person and Internet-based public meetings involving agencies or stakeholder representatives and including very large, diverse, and multilingual audiences

HIGHLIGHTS

- 30 years of experience designing and implementing collaborative processes and building consensus

EDUCATION

- M.S., Ecosystems Management, Antioch University West
- M.A., Archaeology & Anthropology, Trinity College, Cambridge University
- B.A., with Honors, Archaeology & Anthropology, Trinity College, Cambridge University

Specialized Training

Santa Cruz Water Supply Advisory

Mr. Dewar facilitated the work of this consensus building committee charged by the City Council to provide advice regarding water supply policy for the city where water insecurity and desalination proposals have produced a highly politicized debate about an essential service. The policy debate concerned competing interests in providing water supplies to agriculture, aquifer restoration, in-stream flows and municipal drinking water. The Committee consisted of 15 members and agreed to respond to the Council's charge using a collaborative consensus-based process.

Public Private Partnership for Presidio

This was two decision makers from SFCTA and Caltrans with about three staff each and about twenty consultants (engineers, financial consultants, lawyers, etc) mostly face-to-face but with some expertise delivered by phone. So it combined the San Pablo project's Project Team with its TACs and perhaps a bit of its Advisory Committee too. It met for 5 full, consecutive days and then some "clean-up" meetings before reaching agreement.

Missouri River Spring Rise

This was a Technical Working Group (one of about five TWGs) providing recommendations to a consensus-based steering committee that, in turn made a recommendation to the Army Corps. It met face to face only three times (each meeting involved a lot of travel by many people across the Missouri watershed so the number was minimized) and had more frequent phone conferences. It included almost 30 people, so was more similar to the proposed Advisory group and it included more than technical expertise - there were many stakeholder representatives who were neither biologists nor hydrologists.

San José-Santa Clara Regional Wastewater Facility

This Citizens' Advisory Group had about a dozen members and was tasked with making recommendations to the Board of the WTP. They hadn't set out to reach consensus but raised their game when they realized the benefits of presenting a unified recommendation. They met about 11 times over slightly more than one year. It's similar to the San Pablo project in that it's about waste water and it's a consensus-based advisory group.

George W. Kelly
CEO-Bespoke Mitigation Partners
Global Client Strategy Officer-Earth & Water



Education:

B.A. in Political Science and Environmental Studies from Tulane University (1983)
M.S.L., (Master of Studies in Law) *cum laude*, from Vermont Law School,
Environmental Law Center (1987)
J.D., *cum laude*, from Vermont Law School, Law Review (1987)

Employment and Experience:

2019 to Present-CEO and Founder- Bespoke Mitigation Partners/ Global Client Strategy Officer- Earth and Water Strategies- BMP is focused on providing customized eco-asset development and advisory solutions using environmental markets and performance-based tools. It will undertake its work with the best in class local delivery partners to provide outcome-based environmental solutions. The primary focus is on mitigation, offsets, full-delivery and performance-based mechanisms. It includes water quality enhancement; wetland, stream and species habitat restoration and preservation; water resource protection; stormwater and green infrastructure solutions; flood reduction; and carbon offsets. It is undertaking projects both domestically and internationally.

As part of the Strategies Team at E&W, Mr. Kelly is charged with advising private and public entities on Environmental Markets and Asset Management. The goal is to help clients understand, navigate and unlock the value of their environmental assets. Environmental asset optimization is new and evolving. The focus is on understanding what is a potential environmental asset and assessing the market, regulatory and financial drivers in support of potential value.

2014 to 2019, Resource Environmental Solutions, LLC, Chief Markets Officer and Board Member- After the acquisition of EBX by Resource Environmental Solutions (RES) in 2014, Mr. Kelly was charged with leading new environmental market initiatives for RES. This included the expansion of market initiatives in states where RES has existing operations, with a focus on expanding stormwater, nutrient, species, stream and wetlands markets. In addition, he was involved with expanding the RES platform geographically and in diversifying its client base. These expansion efforts helped with obtaining a significant investment in RES by KKR in 2016. As Chief Markets Officer, Mr. Kelly spearheaded RES' efforts to develop: turnkey stormwater solutions throughout the country; nutrient trading markets in the Chesapeake Bay Region, the Gulf Coast and Western US; species markets in the Appalachian, Western and Mid-Western US; stream markets in Texas and the western US; and wetland and stream restoration projects for water quality and carbon markets. He has been instrumental in transforming the stormwater markets in the Mid-Atlantic to a turnkey, performance-based delivery approach and spearheaded stormwater projects for RES in Maryland, Virginia, Pennsylvania (City of Philadelphia); North Carolina and Missouri (City of St. Louis). He also has been active in assisting with the development of alternative stormwater delivery policy in California, including providing inputs to the City of San Diego on its draft Alternative Compliance Plan and to Los Angeles County on its draft stormwater credit trading rules.

1997 to 2014 - Environmental Banc & Exchange, LLC, Founder and Principal – As the Founder and Director of Environmental Banc and Exchange (EBX), Mr. Kelly permitted and sold over \$200m of environmental credits in the United States relating to wetlands, streams, endangered species and water quality. He worked with numerous resource agencies, landowners, investors and private and public credit buyers in the implementation of mitigation projects. He was a leader in promoting new policies at the federal and state levels relating to market-based solutions to achieve environmental objectives, including the federally promulgated wetland/stream mitigation rules enacted in June 2008 and the proposed capital gains bill for mitigation credits (October, 2009).



Brooks M. Smith
Partner

Project Role(s)

Task F: Final Legal and
Regulatory Review

Specialties

Energy, Water, and Regulatory
Compliance Strategy

Interstate Water Quality Trading
Programs

National Water Quality Trading
Alliance

Education

J.D., cum laude, Vermont Law
School

B.A., University of Richmond

Brooks is an environmental and natural resources partner at Troutman Sanders where he helps to lead the firm's strategic initiatives on energy, water, compliance assurance and enforcement defense with more than 20 years of experience. He is also managing partner of the firm's Richmond, VA office. Prior to joining Troutman Sanders in August 2013, Brooks co-chaired the global environmental practice at Hunton & Williams. Brooks is nationally recognized for his work, and in addition to a number of other distinctions, awards and honors, he was recognized as one of the country's 50 Energy & Environmental Trailblazers by the National Law Journal in 2015. Brooks has written and spoken extensively on developments arising under the Clean Water Act and other environmental laws. In addition, he has chaired several national conferences and given more than 200 presentations to audiences across the United States and Canada. Brooks has been actively involved in water quality restoration projects across the country, helping to defend temperature TMDLs in the Pacific Northwest, create new nutrient reduction tools in Iowa, advise on the implementation of the first interstate water quality trading program for the Ohio River Basin, and navigate the complex legal and policy landscape of the regulatory and non-regulatory drivers for improving water quality in the Chesapeake Bay Watershed. He has worked with a broad range of stakeholders on these projects, including EPA, USDA, states, environmental nonprofits, wastewater utilities, electric utilities, manufacturers, developers and farmers. For the past 20 years, Brooks has been involved in one of the most intractable PCB impairments in the country, advising on the water quality aspects of restoration efforts in the Housatonic River in Pittsfield, MA. Brooks has also been involved in a number of other water quality toxics projects in watersheds across the country, as well as state-wide and multi-state mercury cleanup plans in CA, MN, FL and the northeast states. Brooks works closely with clients to advocate for market-based laws and policies to help accelerate the pace and scale of water quality restoration. He also helped to establish the National Water Quality Trading Alliance to provide a more effective platform for advocacy from coast to coast.

More information about Brooks and the firm is accessible here: www.troutman.com and <https://www.troutman.com/services/practices/environmental-and-natural-resources/index.html>.

We are
engineers, scientists
and innovators.

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Offices in Principal Cities of the United States and Select International Locations
geosyntec.com

Exhibit C

REGIONAL COMPLIANCE FOR A SUSTAINABLE BAY

DRAFT SCOPE OF WORK

Task A: Kick Off Meeting

The Geosyntec Consultants (Geosyntec) team will prepare for and attend an in-person, two-hour kick-off meeting with the Steering Committee (SC) and other advisors identified by the SC. The kick-off meeting will discuss the project objectives, detailed project schedule, proposed meeting topics, key decision points, and the intended deliverables. In advance of the meeting, Geosyntec will prepare a Kick-Off Meeting Project Package (Project Package) including the meeting agenda, detailed project schedule, deliverable plan, proposed meeting topics, and preliminary names of technical advisory committee members. Geosyntec will send the Project Package to the meeting participants in advance of the meeting. Geosyntec will send meeting notes and a revised Project Package that reflects the meeting outcomes to the meeting participants within one week of the meeting.

Assumptions:

1. Six Geosyntec Team members will attend the kick-off meeting in person, and one Geosyntec Team member will attend the kick-off meeting via phone.
2. Two rounds of the Project Package will be produced.
3. Revisions to the Project Package will be consistent with the Project Scope of Work and will include minor edits to the project schedule, deliverable plan, individual meeting scheduling and/or meeting topic consolidation, and meeting attendees.

Deliverables: Kick-Off Meeting Project Package; Meeting Facilitation; Meeting Notes; Revised Project Package

Task B: Committee Meetings

The following committees have been identified for this project:

- **The Steering Committee (SC):** A committee comprised of representatives from a few jurisdictions that will guide the development of the WQT System. It is assumed that the City of San Pablo (Amanda Booth) will lead the SC and serve as the Project Manager for the project.
- **The Advisory Committee (AC):** A larger committee open to various stakeholders (jurisdictions, regulatory agencies, and regional organizations) that have an interest in being involved and would like to provide input into development of the WQT System.
- **Technical Advisory Committee(s) (TACs):** TACs consisting of technical and/or legal experts will be formed with input from the SC to address specific issues that arise as part of developing the WQT System.

Task B.1: SC Meetings

Geosyntec will coordinate and facilitate fifteen (15) SC meetings over the course of the project. The SC meetings will cover preparation for upcoming workshops, AC meetings, and TAC meetings; project schedule updates; deliverable progress; and ultimate decisions relating to WQT System component decisions and structure. Geosyntec will synthesize input from workshops, AC meetings, and TAC meetings in advance of key SC meetings to enable actionable decision making. Geosyntec will send brief e-mail summaries following meetings to summarize discussions, decisions, and key action items.

Assumptions:

1. The SC participants will be identified by the City of San Pablo.
2. Ten (10) SC meetings will be in-person, 2-hour meetings, and five (5) SC meetings will be 1-hour phone meetings.
3. The SC meetings will be held in the vicinity of Oakland, Walnut Creek, or San Pablo. Food will not be provided for the in-person meetings.
4. One (1) version of SC agenda and review materials will be provided in advance of the meeting.
5. One (1) version of SC meeting notes in the form of brief bullet-point e-mails will be sent following each meeting.

Task B.1 Deliverables: Fifteen (15) Meeting Agendas and associated Review Materials; Scheduling for Fifteen (15) Meetings; Facilitation of Fifteen (15) Meetings; Fifteen (15) Brief E-mail Meeting Summaries.

Task B.2: AC Meetings

Geosyntec will coordinate and facilitate six (6) AC meetings over the course of the project. AC meetings will be scheduled following workshops and/or TAC meetings and will include a summary of the technical discussion and recommendations, or Stakeholder input, as applicable, from the preceding meetings or workshops, respectively. Meeting scheduling, agendas, facilitation, and brief summaries will be prepared for each AC meeting. A two-week comment period will be provided for AC members after each meeting. Comments received will be compiled and presented to the SC.

Geosyntec will send quarterly summary e-mails to AC members during quarters when meetings are not held.

Assumptions:

1. The list of AC participants will be developed by Geosyntec in coordination with the SC.
2. AC participants will commit to participation through response to a call for AC members provided in the Workshop #1 invitation and during Workshop #1.
3. One (1) 3-hour and five (5), 2-hour in-person AC meetings (a total of 13 hours of AC meetings) will be held.

4. At least one (1) Geosyntec staff person will attend each meeting in person. Additional Geosyntec Team members will attend AC meetings in person or via phone as needed based on the AC meeting topic.
5. A total of three (3) quarterly e-mail summaries will be sent to the AC when meetings are not held in a quarter.
6. Comments received from the AC following the two-week comment period cut-off will be noted but may not be addressed.
7. AC member comments on meeting notes will be tracked and minor edits made. Major edits that are requested will be documented but may not be addressed through meeting notes revisions.

Task B.2 Deliverables: *Six (6) Meeting Agendas, with Review Materials; Scheduling for Six (6) Meetings; Facilitation of Six (6) Meetings; Six (6) Brief Meeting Summaries; Compilation of Comments Received following Six (6) Meetings; Three (3) Quarterly E-mail Updates*

Task B.3: TAC Meetings

Geosyntec will facilitate and coordinate in-person TAC meetings for the Project. TAC meeting topics will include:

- Units of Credit and Equivalency Analysis
- WQT System/Legal/P3 & Finance Discussion Meeting
- Credit Certification
- Credit Tracking System
- Legal Review

Geosyntec will schedule meetings, prepare meeting agendas, coordinate expert presentations, facilitate meetings, and prepare post-meeting summaries.

Assumptions:

1. TAC meeting participants will be identified by the Geosyntec Team and approved by the SC.
2. A total not to exceed five (5) meetings or sixteen (16) hours of TAC meetings will be held over the course of the project. All will be in-person meetings.
3. As needed, the Credit Certification and Credit Tracking System topics may be consolidated to allow for more time for the WQT System topic.
4. At least one (1) Geosyntec staff will attend each meeting in person. Additional Geosyntec Team members will attend TAC meetings in person or via phone as needed based on the TAC meeting topic.
5. TAC participant comments on meeting notes will be tracked and minor edits made. Major edits requested will be documented but may not be addressed through meeting notes revisions.

Task B.3 Deliverables: *Five (5) Meeting Agendas; Scheduling for Five (5) Meetings; Facilitation/ Presentations for Five (5) Meetings; Five (5) Meeting Summaries.*

Task C: Literature Review

The Geosyntec Team will prepare a literature review as part of Task C. The literature review will summarize information about the key components and decisions needed to develop a successful WQT system specific to the Bay Area. Topics included in the literature review will include regulatory considerations, including drivers and CEQA considerations; market structures; units of credits; practices to achieve credit, trades; risk considerations; tracking needs; funding and financing considerations; preliminary recommendations for the Bay Area; and next steps for system development.

Task C.1: Annotated Outline

The Geosyntec Team will prepare an annotated outline of the literature for review by the SC.

Assumptions:

1. Comments received from the SC on the annotated outline will be addressed in the draft Literature Review (Task C.3).

Task C.1 Deliverables: *Draft Annotated Literature Review Annotated Outline.*

Task C.2: Cross-Cut Analysis

The Geosyntec Team will conduct a cross-cut analysis to explore the program considerations included in the literature review outline across a variety of example programs. WQT System components included in the cross-cut analysis will include but not be limited to legal basis, drivers, eligible trades, eligible entities, market structure, units of credit, credit baseline, credit calculation methods, pollutants traded, trade ratios, program restrictions, tracking system, risk considerations, monitoring and evaluation, credit certification/verification, and/or compliance and enforcement. The cross-cut analysis will be presented in a comprehensive table that allows for comparison between different example programs. Portions of the cross-cut analysis table will be presented and discussed during the first two TAC meetings and the subsequent AC meetings, and be made available during the first Workshop.

Assumptions:

1. Edits to the WQT System Components Cross-Cut Analysis Table will be made in Task C.3.

Task C.2 Deliverables: *WQT System Components Cross-Cut Analysis Table.*

Task C.3: Draft and Final Literature Review

The Geosyntec Team will draft the Literature Review, considering comments provided by the SC on the annotated outline, summarized in concurrent TAC and AC meeting notes, or provided in follow-up e-mails from the AC following concurrent AC meetings. The draft Literature Review will be provided to the SC for review. Comments received on the draft Literature Review will be discussed with the SC during an SC meeting, and addressed in the final Literature Review.

Assumptions:

1. Two (2) versions of the Literature Review will be produced.
2. Comments received by the SC on the Literature Review will be addressed. Should the SC request review by other parties, those comments will be documented and minor revisions to address comments received will be made if needed.

Task C.3 Deliverables: *Draft Literature Review; Final Literature Review.*

Task D: Workshops

Task D.1: Two Workshops

As part of Task D, the Geosyntec Team will prepare for and conduct two (2) in-person Project Workshops. Workshop topics are summarized below:

1. **Workshop 1** – The first workshop will introduce the Project, describe Project objectives, summarize capabilities and limitations of WQT Systems and identify/discuss the major components to be discussed in TAC meetings and developed through Task E. This workshop will also be used to identify the entities interested in participating in the AC.
2. **Workshop 2** – The second workshop will occur during the later stages of WQT System development, following direction from the SC regarding key components of the WQT System. The second workshop will provide an overarching framework for how the WQT System will work and will request stakeholder input, questions, and/or concerns.

The Geosyntec Team will send out Workshop invitations, notifications, and reference material to invitees. The Geosyntec Team will also design the Workshop agenda, identify presenters for the Workshop with input from the SC, coordinate presentations, coordinate or confirm that refreshments, audio/visual equipment, and chairs/tables are supplied, facilitate Workshops, prepare interactive Stakeholder activities and/or facilitate a question and answer period, and obtain SC review of all preparatory materials. The Geosyntec Team will also compile Workshop notes, pictures, and other relevant grant reporting information for SC review.

Assumptions:

1. Up to twelve (12) total hours of Workshops will be conducted, not to exceed two (2) duplicate Workshop sessions per topic (i.e., up to four (4) total hosted Workshop sessions).
2. The SC will identify and reserve the Workshop venue and identify Workshop attendees.
3. One (1) Round of review by the SC and revisions to address comments assumed for all deliverables

Task D.1 Deliverables: *Two (2) Workshop invites, agendas, handouts, presentations, sign-in sheets; Facilitation of two (2) Workshops; Notes and Photos for two (2) workshops.*

Optional Task D.2: Workshop #3

Optionally, the Geosyntec Team will conduct a third in-person Workshop with additional budget not currently included in this contracted scope of work. The Geosyntec Team will send out Workshop invitations, notifications, and reference material to invitees. The Geosyntec Team will

also design the Workshop agenda, identify presenters for the Workshop, coordinate presentations, coordinate or confirm that refreshments, audio/visual equipment, and chairs/tables are supplied, facilitate Workshops, prepare interactive Stakeholder activities and/or facilitate a question and answer period, and obtain SC review on all preparatory materials. The Geosyntec Team will also compile Workshop notes, pictures, and other relevant grant reporting information for SC review. It is assumed that the SC will identify and reserve the Workshop venue and identify Workshop attendees.

Assumptions:

1. Workshop would require additional budget not currently included in the total Project budget.
2. Up to six (6) total hours of Workshops will be conducted, not to exceed two (2) duplicate Workshop sessions for the Workshop topic.
3. The Workshop topic will be related to work completed under this scope and will be identified by the SC.
4. The SC will identify and reserve the Workshop venue and identify Workshop attendees.
5. One (1) Round of review by the SC and revisions to address comments assumed for all deliverables

Optional Task D.2 Deliverables: One (1) Workshop invite, agenda, handouts, presentations, sign-in sheets; Facilitation of one (1) Workshop; Notes and Photos for one (1) workshop.

Task E: System Development

Using the outline, key decisions, and assumptions documented in the Literature Review, the Geosyntec Team will develop the WQT System as part of Task E.

Task E.1: Data Request and WQT System Component Analysis

The Geosyntec Team Development will develop a data request to send to members of the SC, AC, and/or the CCCWP or its member agencies. Requested data is expected to include geospatial information such as updated land use, zoning information, GSI locations, GSI plans, parcel or ROW ownership, modeling output or monitoring data relevant to the WQT System unit of credit, and cost data for the relevant credit-generating practices. County data received and/or already available that is used for analyses will be compiled and tracked in a database.

Using data received, the Geosyntec Team will conduct analyses relating to credits and trades including:

1. Geospatial analyses to define the geographical limits of trading within Contra Costa County;
2. Definition of credit units;
3. Identification of “Baseline” condition for generated credits;
4. Estimated credits generated from accepted practices (as approved by the SC) and/or a calculation method to estimate generated credits;
5. Credit equivalency analysis (i.e., credit value variability based on land use, location, or

- other characteristics);
6. Development of trade ratios per direction from the SC, which could be applied to different buyers and sellers, credit-generating locations, practices and/or credit generation characteristics; and
 7. Literature review or other investigation needed for credit certification process development (utilizing input from relevant TAC/AC meetings).

The Geosyntec Team will also conduct a cost analysis to identify the range of potential costs for credit generation, given GSI or other practice type, geographic source loading conditions, and other relevant eligibility and/or credit discounting considerations. The range of potential costs for credit certification and ongoing credit accountability through O&M actions will also be conducted. Trends arising from the cost analysis relating to more efficient credit-generating practice types will be shared with the SC to discuss the potential to develop programmatic incentives and disincentives relating to GSI or other practice type, location, or other factor.

Assumptions:

1. Definitions/Calculations of Credits, Credit Equivalence, Trades, and Trade Ratios developed through Task E.1 will be summarized in the Task E.2 WQT System Summary Report
2. The results of the Cost Analysis will be summarized in Task E.2 WQT System Summary Report
3. Review by the SC and other SC-designated parties will occur and be addressed as part of Task E.2.
4. One (1) round of review is assumed on the Map of Limits of Trading.

Task E.1 Deliverables: *Data Request; Database of Data Received; Draft and Final Map of Limits of Trading.*

Task E.2: WQT System Summary Report

The Geosyntec Team will synthesize the analyses described in Task E.1, along with legal rationale discussed in TAC Meeting #2 and information from experts and stakeholders, into a WQT System Summary Report. The framework for the WQT System will build from the Literature Review and will include:

- Objectives of the system relative to TMDL goals and allocations, anticipated MRP requirements, and potential constraints (i.e., legal/permit structure of the system).
- Rationale for WQT System selection.
- Unit of Credit and associated summary of pollutant load reduction calculations and/or volume/area treated calculations (i.e., credit calculation method) and financial analysis conducted, along with findings on efficiencies relating to practice selection or location, with associated appendices.
- Practices that achieve identified units of credit.
- Identification of eligible trades, parties eligible to trade, trade ratios, and trade restrictions.

- Summary of funding options and/or mechanisms, drawn from the cross-cut analysis under Task C, and other funding innovations considered in California.
- Section on Instructions/Procedures for WQT System Implementation.
- Description of Risk and Uncertainty Management.
- Description of Tracking Tool and Instructions for Use, as determined through Task E.3 and working with SFEI to develop this language.
- Example Permitting Language, using the materials compiled from Tasks E.2, E.3, and E.4.

The Draft WQT System Summary Report will be provided to the SC and other SC-designated reviewers for a single round of comments. Compiled comments received from the reviewers will be incorporated into the Revised Draft WQT System Summary Report.

Assumptions:

1. It is anticipated that the WQT System development will be discussed in SC meetings over the course of its development, and verbal input given by the SC through these meetings will be incorporated into the WQT System Summary Report.
2. Two (2) versions of the Draft WQT System Summary Report will be developed.

Task E.2 Deliverables: Draft WQT System Summary Report; Revised Draft WQT System Summary Report.

Task E.3: Credit Tracking System

The Geosyntec Team will develop template tracking spreadsheets or databases to be incorporated into the Tracking System developed by SFEI. Input from the Credit Tracking System TAC Meeting and subsequent AC Meeting will be incorporated into the Geosyntec Team recommendations for the structure of the tracking system. The Geosyntec Team will compile a Draft Credit System package that includes a brief memorandum or flow chart describing the recommended tracking system structure, with spreadsheets and/or online database link attachments. The spreadsheet and/or online database link attachments will provide the recommended attributes to be included in the Credit Tracking System. Recommended attributes are expected to include, but are not limited to:

- Credit-generating project tracking data, including location, drainage area characteristics, sizing, capital costs (if publicly disclosable), and applicable trade ratios or discounting factors.
- Credit accounting (i.e., credits generated using pollutant calculations developed to define the unit of credit), implementing party, and project funding/financing, as applicable.
- Credit purchaser information.
- Total credits traded.
- Credit approval requirements, likely including:
 - a. Third-party completeness certification of crediting-project application.

- b. Third-party verification of crediting project implementation and annual inspections.
 - c. Environmental monitoring data (where required).
 - d. Other calculated environmental credits.
 - e. Operations and maintenance (O&M) tracking or other credit certification needs, including O&M conducted and associated O&M costs if disclosable.
 - f. Invoice tracking for crediting project installation costs and credit payments.
- Mapping of crediting projects and public disclosure elements associated with contaminant capture, O&M, cleanout history, and environmental monitoring.
 - For proof of O&M, it may be suggested that a collector app or other tool be identified (if proprietary) or developed by SFEI and incorporated into the SFEI tool to store annual O&M documentation and forms.

This Draft Credit Tracking System package will be made available to the SC for review; the Revised Draft Credit Tracking System Package and SC comments will then be provided to SFEI for incorporation into the Credit Tracking System. Geosyntec will review the SFEI Credit Tracking System and provide recommended revisions.

Assumptions:

1. The Geosyntec Team will provide two (2) versions of the Credit Tracking System Package. The revised draft will address comments from the SC.
2. The Geosyntec Team will provide two (2) rounds of review on the Credit Tracking System tool and conduct up to two (2) calls with SFEI to discuss.
3. The Geosyntec Team will summarize recommendations and call discussion with SFEI in two (2) brief e-mails to the SC.

Task E.3 Deliverables: Draft Credit Tracking System package, including brief memo/flowchart, and attached/linked spreadsheet/database structure with required attribute columns; Revised Draft Credit Tracking System Package; Two (2) rounds of review of SFEI Tracking Tool to confirm integration of needed Tracking System package components; Up to two (2) calls with SFEI.

Task E.4: Template Documents and Supporting Documents

The Geosyntec Team will draft several template forms and applications for the WQT System and integrated SFEI Tracking Tool that align with the final market structure. These are anticipated to include, but are not limited to:

- Memoranda of Understanding (MOU) or interagency agreements establishing the basis for program participation, cooperation, and administration.
- Annual program staff report template.
- Resolutions among program participants on program changes.
- O&M Inspection Certification template.

- Contractual obligations for participants (i.e., for specific trades).
- Guidance on GSI project O&M/disposal and manifesting requirements.

Assumptions:

1. Two (2) versions of the Draft Template Documents will be produced. SC comments on the initial draft will be addressed in the revised draft.

Task E.4 Deliverables: *Task E.4 Draft Template Documents listed; Revised Draft Template Documents.*

Task F: Legal Review

The Geosyntec Team will coordinate Legal Review of the Task E.2 and E.4 final deliverables (i.e., the Revised Draft WQT System Summary Report and the Revised Draft Template Documents; the reviewed SFEI Tracking System will be provided as reference if needed). Final Task E.2 and E.4 deliverables will be transmitted to Brooks Smith along with City and County attorneys identified by the SC.

Comments and input provided by Brooks Smith along with City and County attorneys will be compiled into a Legal Comments Matrix by Geosyntec, which would also be presented at the relevant TAC/AC meetings.

Assumptions:

1. Brooks Smith's legal review scope of work will be contracted separately.
2. The SC will identify the City and County attorneys performing review.

Deliverables: *Transmittal of Revised Draft Task E.2 and E.4 deliverables (see Task E, previous) and SFEI's final Credit Tracking Tool link, to Brooks Smith along with City and County attorneys identified by the SC; Legal Comments Matrix.*

Task G: Final System Documents

As part of Task G, the Geosyntec Team will edit the WQT System documents produced as part of Task E to incorporate two rounds of comments. The first round of edits will address the legal comments received through Task F. A Responses to Legal Comments Matrix will be developed to address legal comments received; these responses will be incorporated into the WQT System edits. The responses to legal comments and edits to the WQT System will be reviewed by the SC.

Geosyntec will distribute the resulting Draft Final Program Documents, along with the detailed Responses to Legal Comment Matrix, to the AC for the second round of review and input. Comments received from the AC will be compiled into an AC Comments Matrix. Responses to AC comments will be developed, approved by the SC via meeting and written communication, and subsequent edits made to the Final Program Documents to address the comments. The SC will review and approve the edits made to produce the Final Program Documents. The resulting Final Program Documents and Responses to the AC Comments Matrix will be distributed to the SC and the AC.

Assumptions:

1. The first round of comments received is assumed to be the legal comments received under Task F. Edits will be documented in a Response to Legal Comments Matrix, which will be approved by the SC prior to incorporation into the revised WQT System Documents. Revised WQT System documents will be reviewed by the SC before distribution to the AC.
2. A meeting with the AC will be held in Task B.2 to discuss input to the Draft Final Program Documents. Comments during the meeting and subsequent e-mail responses from AC members will be compiled into the AC Comments Matrix.
3. Responses to the AC Comments Matrix will be approved by the SC before incorporating into the Final Program Documents. The Final Program Documents will be reviewed by the SC before finalizing.
4. Minor edits to the Final Program Documents, to address legal comments received via 2nd round (minor) legal review or legal input via phone from attorneys, will be made prior to distributing to the AC.

Deliverables: Responses to Legal Comments Matrix; Draft Final Program Documents (Round 1 edits); Responses to AC Comments Matrix; Final Program Documents (Round 2 edits).

Task H: Pilot Project Implementation

As part of Task H, the Geosyntec Team will develop project-specific program Pilot Project Trading Documents needed for one to two pilot projects identified and designed by others (outside of this scope of work). Documents are anticipated to include a compilation of project information to be tracked, including project location, drainage area and land use type, calculated credits generated, parties generating credits, capital costs, and funding/financing information as applicable. In addition to the information about the project and credits generated, documents supporting the trade, including a MOU and/or interagency agreement, and O&M certification or other credit certification documents, as applicable, will be refined.

Lessons learned from the implementing the WQT System for the pilot project(s) will be documented in a brief Pilot Project Lessons Learned Memorandum and shared with the SC. Based on input from the SC, Revisions to the Final Program Documents will be made and shared with the SC and the AC. A final AC meeting will be held to discuss any changes made.

Assumptions:

1. Edits to the Final Documents arising from the Pilot Project Lessons Learned Memorandum will be approved by the SC.
2. The AC will be informed of the edits and comments will be documented in the AC meeting notes completed through Task B.2. Additional edits to address AC comments may not be made.
3. Minor edits to the Revisions to the Final Program Documents, to address legal comments received via 2nd round (minor) legal review or legal input via phone from attorneys, will be made prior to distributing to and discussing with the AC.

Deliverables: *Pilot Project Trading Documents; Pilot Project Lessons Learned Memorandum; One Round of Revisions to Final Program Documents.*

Task I: Grant Reporting

The Geosyntec Team will conduct Grant Reporting consistent with the USEPA Grant Application and the USEPA Notice of Award as part of Task I. All deliverables (e.g., documents, templates, presentations, etc.) will be formatted to comply with the USEPA Notice of Award Programmatic Conditions c.) Grant Source Recognition (RFP Attachment 3).

Task I.1: Quarterly Progress Reporting and In-Kind Match Tracking

1. Quarterly Progress Reports – Using the template provided as Attachment 4 of the RFP, the Geosyntec Team will prepare ten (10) Quarterly Progress Reports to describe progress with the tasks included as part of this Project scope. The Geosyntec Team will provide two (2) drafts of the first Progress Report (i.e., Q1 2020) to allow for client changes to the Quarterly Report template, tone, and level of detail. Utilizing this feedback, the Geosyntec Team will provide one (1) draft of the remaining nine (9) Quarterly Reports (assumed Q2 – Q4 2020, Q1 – Q4 2021, and Q1 – Q2 2022). To manage budget, minor edits only will be made to these nine (9) Quarterly Reports, if requested by the City of San Pablo. As required by the USEPA Programmatic Conditions, Progress Reports will include:
 - A discussion of the activities conducted during the (previous) two quarters (including a comparison of actual accomplishments with the anticipated outputs and outcomes specified in the workplan);
 - Progress towards milestones;
 - Problems encountered with achieving outputs and outcomes, and their resolution;
 - Activities planned for the next two quarters;
 - A financial accounting of costs incurred during the reporting period;
 - Cumulative project costs (USEPA and match amounts) since the beginning of the project, by task; and
 - Identification of any special USEPA assistance needed, and an explanation of any cost overruns.
2. In-Kind Match Tracking Sheets - The Geosyntec Team will send out a once-monthly e-mail request for financial/timesheet submittals for all jurisdictions participating in the Project and will follow-up as needed to obtain the submittals. The Team will track and compile timesheet submittals on a quarterly basis for inclusion in Quarterly Progress Reports. It is assumed that ten (10) compiled timesheet submittals will be produced.

Deliverables: *One (1) Draft Example Quarterly Report (for Q1 2020); Ten (10) Final Quarterly Reports; Ten (10) In-Kind Match Tracking Sheets.*

Task I.2: Final Project Report

The Geosyntec Team will draft the Final Project Report in accordance with USEPA Notice of Award Programmatic Conditions a.) Reporting (RFP Attachment 3). The final report will

February 5, 2020

document all completed activities for the entire project period and provide a summary of the project achievements with respect to the project's purposes and objectives. It is anticipated that the Final Project Report will include the Revised Final Program Documents produced as part of Task H as an attachment. The Draft Final Project Report will be provided to the SC. Comments provided by the SC will be addressed in the Final Project Report.

Deliverables: *Draft Final Project Report; Final Project Report.*

Task PM: Project Management

Geosyntec will perform project management for the project, including coordination with subs, task coordination, as-needed communication with the client POC (the City/Amanda Booth), including project progress updates, schedule updates and adaptation, budget and deliverable tracking, and invoicing.

"General Decision Number: CA20200018 01/03/2020

Superseded General Decision Number: CA20190018

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

Counties: Alameda, Calaveras, Contra Costa, Fresno, Kings, Madera, Mariposa, Merced, Monterey, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Stanislaus and Tuolumne Counties in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020

ASBE0016-004 01/01/2019

AREA 1: CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED,
MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS &
TOULMNE COUNTIES

AREA 2: ALAMEDA, CONTRA COSTA, SAN FRANSICO, SAN MATEO & SANTA
CLARA COUNTIES

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)		
Area 1.....	\$ 28.20	9.27
Area 2.....	\$ 36.53	9.27

ASBE0016-008 08/01/2019

AREA 1: ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN
FRANSICO, SAN MATEO, SANTA CLARA, & SANTA CRUZ

AREA 2: CALAVERAS, COLUSA, FRESNO, KINGS, MADERA, MARIPOSA,
MERCED, SAN JOAQUIN, STANISLAU, & TUOLUMNE

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, Protective Coverings, Coatings, and Finishes to all types of mechanical systems)		
Area 1.....	\$ 71.16	23.39
Area 2.....	\$ 54.26	23.30

BOIL0549-001 10/01/2016

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA
CLARA COUNTIES

AREA 2: REMAINING COUNTIES

	Rates	Fringes
BOILERMAKER		

Area 1.....	\$ 43.28	37.91
Area 2.....	\$ 39.68	35.71

BRCA0003-001 08/01/2019

Rates	Fringes
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MARBLE FINISHER.....	\$ 35.41	16.45
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BRCA0003-003 08/01/2019

Rates	Fringes
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MARBLE MASON.....	\$ 49.42	27.86
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BRCA0003-005 05/01/2019

Rates	Fringes
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BRICKLAYER

(1) Fresno, Kings, Madera, Mariposa, Merced....	\$ 41.88	22.19
(7) San Francisco, San Mateo.....	\$ 42.34	25.83
(8) Alameda, Contra Costa, San Benito, Santa Clara.....	\$ 44.16	21.71
(9) Calaveras, San Joaquin, Stanislaus, Toulumne.....	\$ 39.66	20.76
(16) Monterey, Santa Cruz...	\$ 39.51	23.49

BRCA0003-008 07/01/2019

Rates	Fringes
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TERRAZZO FINISHER.....	\$ 37.58	17.33
TERRAZZO WORKER/SETTER.....	\$ 48.53	26.84

BRCA0003-011 04/01/2019

AREA 1: Alameda, Contra Costa, Monterey, San Benito, San
Francisco, San Mateo, Santa Clara, Santa Cruz

AREA 2: Calaveras, San Joaquin, Stanislaus, Tuolumne

AREA 3: Fresno, Kings, Madera, Mariposa, Merced

Rates	Fringes
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TILE FINISHER

Area 1.....	\$ 29.94	16.38
Area 2.....	\$ 25.60	14.30

Area 3.....	\$ 26.58	15.65
Tile Layer		
Area 1.....	\$ 49.90	19.16
Area 2.....	\$ 42.67	16.81
Area 3.....	\$ 40.27	18.58

 CARP0022-001 07/01/2019

San Francisco County

	Rates	Fringes
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Carpenters

Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 50.65	30.20
Journeyman Carpenter.....	\$ 50.50	30.20
Millwright.....	\$ 50.60	31.79

 CARP0034-001 07/01/2019

	Rates	Fringes
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Diver

Assistant Tender, ROV		
Tender/Technician.....	\$ 49.75	33.40
Diver standby.....	\$ 55.73	33.40
Diver Tender.....	\$ 54.73	33.40
Diver wet.....	\$ 99.27	33.40
Manifold Operator (mixed		
gas).....	\$ 59.73	33.40
Manifold Operator (Standby).	\$ 54.73	33.40

DEPTH PAY (Surface Diving):

050 to 100 ft	\$2.00 per foot
101 to 150 ft	\$3.00 per foot
151 to 220 ft	\$4.00 per foot
221 ft.-deeper	\$5.00 per foot

SATURATION DIVING:

The standby rate shall apply until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. The diver rate shall be paid for all saturation hours.

DIVING IN ENCLOSURES:

Where it is necessary for Divers to enter pipes or tunnels, or other enclosures where there is no vertical ascent, the following premium shall be paid: Distance traveled from

entrance 26 feet to 300 feet: \$1.00 per foot. When it is necessary for a diver to enter any pipe, tunnel or other enclosure less than 48"" in height, the premium will be \$1.00 per foot.

WORK IN COMBINATION OF CLASSIFICATIONS:
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

CARP0034-003 07/01/2019

	Rates	Fringes
Piledriver.....	\$ 50.75	33.40

* CARP0035-007 07/01/2019

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne Counties

	Rates	Fringes
Modular Furniture Installer		
Area 1		
Installer I.....	\$ 27.46	22.14
Installer II.....	\$ 22.18	20.42
Lead Installer.....	\$ 30.91	22.64
Master Installer.....	\$ 35.13	22.64
Area 2		
Installer I.....	\$ 24.81	22.14
Installer II.....	\$ 20.01	20.42
Lead Installer.....	\$ 27.78	22.64
Master Installer.....	\$ 31.41	22.64
Area 3		
Installer I.....	\$ 23.86	22.14
Installer II.....	\$ 19.24	20.42
Lead Installer.....	\$ 26.66	22.64
Master Installer.....	\$ 30.08	22.64

* CARP0035-008 08/01/2019

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: San Joaquin

AREA 4: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, Stanislaus, Tuolumne Counties

	Rates	Fringes
Drywall Installers/Lathers:		
Area 1.....	\$ 50.50	30.64
Area 2.....	\$ 44.62	30.64
Area 3.....	\$ 41.02	29.15
Area 4.....	\$ 43.77	30.64
Drywall Stocker/Scraper		
Area 1.....	\$ 25.25	17.86
Area 2.....	\$ 22.31	17.86
Area 3.....	\$ 20.51	16.88
Area 4.....	\$ 21.89	17.86

CARP0152-001 07/01/2019

Contra Costa County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 50.65	30.20
Journeyman Carpenter.....	\$ 50.50	30.20
Millwright.....	\$ 50.60	31.79

CARP0152-002 07/01/2019

San Joaquin County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 44.77	30.20
Journeyman Carpenter.....	\$ 44.62	30.20
Millwright.....	\$ 47.12	31.79

CARP0152-004 07/01/2019

Calaveras, Mariposa, Merced, Stanislaus and Tuolumne Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 43.42	30.20
Journeyman Carpenter.....	\$ 43.27	30.20
Millwright.....	\$ 45.77	31.79

CARP0217-001 07/01/2019

San Mateo County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 50.65	30.20
Journeyman Carpenter.....	\$ 50.50	30.20
Millwright.....	\$ 50.60	31.79

CARP0405-001 07/01/2019

Santa Clara County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 50.65	30.20
Journeyman Carpenter.....	\$ 50.50	30.20
Millwright.....	\$ 50.60	31.79

CARP0405-002 07/01/2019

San Benito County

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 44.68	30.20
Journeyman Carpenter.....	\$ 44.62	30.20
Millwright.....	\$ 47.12	31.79

CARP0505-001 07/01/2019

Santa Cruz County

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 44.77	30.20
Journeyman Carpenter.....	\$ 44.62	30.20
Millwright.....	\$ 47.12	31.79

CARP0605-001 07/01/2019

Monterey County

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 44.77	30.20
Journeyman Carpenter.....	\$ 44.62	30.20
Millwright.....	\$ 47.12	31.79

CARP0701-001 07/01/2019

Fresno and Madera Counties

Rates Fringes

Carpenters

Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 43.42	30.20
Journeyman Carpenter.....	\$ 43.27	30.20
Millwright.....	\$ 45.77	31.79

CARP0713-001 07/01/2019

Alameda County

Rates	Fringes
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Carpenters

Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 50.65	30.20
Journeyman Carpenter.....	\$ 50.50	30.20
Millwright.....	\$ 50.60	31.79

CARP1109-001 07/01/2019

Kings County

Rates	Fringes
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Carpenters

Bridge Builder/Highway		
Carpenter.....	\$ 50.50	30.20
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 43.42	30.20
Journeyman Carpenter.....	\$ 43.27	30.20
Millwright.....	\$ 45.77	31.79

ELEC0006-004 12/01/2018

SAN FRANCISCO COUNTY

Rates	Fringes
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Sound & Communications

Installer.....	\$ 40.52	3%+19.05
Technician.....	\$ 46.60	3%+19.05

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0006-007 06/01/2019

SAN FRANCISCO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 74.50	3%+33.715

* ELEC0100-002 09/01/2019

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 39.00	23.82

ELEC0100-005 12/01/2018

FRESNO, KINGS, MADERA

	Rates	Fringes
Communications System		
Installer.....	\$ 33.59	19.55
Technician.....	\$ 38.63	19.71

SCOPE OF WORK

Includes the installation testing, service and maintenance, of the following systems which utilize the transmission and/or transference of voice, sound, vision and digital for

commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms, and low voltage master clock systems.

A. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS

Background foreground music, Intercom and telephone interconnect systems, Telephone systems Nurse call systems, Radio page systems, School intercom and sound systems, Burglar alarm systems, Low voltage, master clock systems, Multi-media/multiplex systems, Sound and musical entertainment systems, RF systems, Antennas and Wave Guide,

B. FIRE ALARM SYSTEMS Installation, wire pulling and testing

C. TELEVISION AND VIDEO SYSTEMS Television monitoring and surveillance systems Video security systems, Video entertainment systems, Video educational systems, Microwave transmission systems, CATV and CCTV

D. SECURITY SYSTEMS Perimeter security systems Vibration sensor systems Card access systems Access control systems, Sonar/infrared monitoring equipment

E. COMMUNICATIONS SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (Supervisory Control and Data Acquisition) PCM (Pulse Code Modulation) Inventory Control Systems, Digital Data Systems Broadband and Baseband and Carriers Point of Sale Systems, VSAT Data Systems Data Communication Systems RF and Remote Control Systems, Fiber Optic Data Systems

WORK EXCLUDED Raceway systems are not covered (excluding Ladder-Rack for the purpose of the above listed systems).

Chases and/or nipples (not to exceed 10 feet) may be installed on open wiring systems. Energy management systems. SCADA (Supervisory Control and Data Acquisition) when not intrinsic to the above listed systems (in the scope). Fire alarm systems when installed in raceways (including wire and cable pulling) shall be performed at the electrician wage rate, when either of the following two (2) conditions apply:

1. The project involves new or major remodel building trades construction.
2. The conductors for the fire alarm system are installed in conduit.

* ELEC0234-001 12/23/2019

MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
ELECTRICIAN		
Zone A.....	\$ 51.47	26.64
Zone B.....	\$ 56.62	26.80

Zone A: All of Santa Cruz, Monterey, and San Benito Counties within 25 air miles of Highway 1 and Dolan Road in Moss Landing, and an area extending 5 miles east and west of Highway 101 South to the San Luis Obispo County Line

Zone B: Any area outside of Zone A

ELEC0234-003 12/01/2018

MONTEREY, SAN BENITO, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.02	19.75
Technician.....	\$ 46.02	19.75

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0302-001 02/25/2019

CONTRA COSTA COUNTY

	Rates	Fringes
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CABLE SPLICER.....	\$ 60.48	26.06
ELECTRICIAN.....	\$ 53.76	25.86

ELEC0302-003 12/01/2018

CONTRA COSTA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 38.42	19.70
Technician.....	\$ 44.18	19.88

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0332-001 06/01/2019

SANTA CLARA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 78.60	38.564
ELECTRICIAN.....	\$ 68.52	38.256

FOOTNOTES: Work under compressed air or where gas masks are required, or work on ladders, scaffolds, stacks, ""Bosun's chairs,"" or other structures and where the workers are not protected by permanent guard rails at a distance of 40 to 60 ft. from the ground or supporting structures: to be paid one and one-half times the straight-time rate of pay.
Work on structures of 60 ft. or over (as described above): to be paid twice the straight-time rate of pay.

ELEC0332-003 12/01/2018

SANTA CLARA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.02	19.75
Technician.....	\$ 46.02	19.93

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-001 06/01/2019

ALAMEDA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 65.90	3%+36.82
ELECTRICIAN.....	\$ 57.30	3%+36.82

ELEC0595-002 06/01/2019

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 43.99	7.75%+24.83
ELECTRICIAN		
(1) Tunnel work.....	\$ 40.16	7.75%+24.83
(2) All other work.....	\$ 38.25	7.75%+24.83

ELEC0595-006 12/01/2018

ALAMEDA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.02	3%+18.96
Technician.....	\$ 46.02	3%+18.96

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-008 12/01/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 33.59	3%+18.86
Technician.....	\$ 38.63	3%+18.86

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway

systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0617-001 06/01/2019

SAN MATEO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 63.00	37.68

ELEC0617-003 12/01/2019

SAN MATEO COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 42.93	21.09
Technician.....	\$ 49.37	21.28

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0684-001 06/01/2019

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 40.25	3%+22.83
CABLE SPLICER = 110% of Journeyman Electrician		

ELEC0684-004 12/01/2018

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 33.59	19.56
Technician.....	\$ 38.63	19.71

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

* ELEC1245-001 06/01/2019

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 58.09	19.36
(2) Equipment specialist		
(operates crawler		
tractors, commercial motor		
vehicles, backhoes,		
trenchers, cranes (50 tons		

and below), overhead &
underground distribution
line equipment).....\$ 46.40 18.17
(3) Groundman.....\$ 35.47 17.79
(4) Powderman.....\$ 49.55 3%+17.65

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day,
Independence Day, Labor Day, Veterans Day, Thanksgiving Day
and day after Thanksgiving, Christmas Day

ELEV0008-001 01/01/2019

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 67.56	34.125+a+b

FOOTNOTE:
PAID VACATION: Employer contributes 8% of regular hourly
rate as vacation pay credit for employees with more than 5
years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day,
Labor Day, Veterans Day, Thanksgiving Day, Friday after
Thanksgiving, and Christmas Day.

* ENGI0003-001 06/24/2019

""AREA 1"" WAGE RATES ARE LISTED BELOW
""AREA 2"" RECEIVES AN ADDITIONAL \$2.00 PER HOUR ABOVE AREA 1
RATES.

SEE AREA DEFINITIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (AREA 1:)		
GROUP 1.....	\$ 49.02	30.74
GROUP 2.....	\$ 47.49	30.74
GROUP 3.....	\$ 46.01	30.74
GROUP 4.....	\$ 44.63	30.74
GROUP 5.....	\$ 43.36	30.74
GROUP 6.....	\$ 42.04	30.74
GROUP 7.....	\$ 40.90	30.74
GROUP 8.....	\$ 39.76	30.74
GROUP 8-A.....	\$ 37.55	30.74
OPERATOR: Power Equipment (Cranes and Attachments - AREA 1:)		
GROUP 1		
Cranes.....	\$ 50.65	30.74

Oiler.....	\$ 36.63	30.39
Truck crane oiler.....	\$ 43.55	30.74
GROUP 2		
Cranes.....	\$ 48.14	30.74
Oiler.....	\$ 36.36	30.39
Truck crane oiler.....	\$ 43.33	30.74
GROUP 3		
Cranes.....	\$ 46.40	30.74
Hydraulic.....	\$ 38.32	30.39
Oiler.....	\$ 36.14	30.39
Truck Crane Oiler.....	\$ 43.06	30.74
GROUP 4		
Cranes.....	\$ 43.36	30.74
OPERATOR: Power Equipment		
(Piledriving - AREA 1:)		
GROUP 1		
Lifting devices.....	\$ 45.89	30.39
Oiler.....	\$ 36.63	30.39
Truck crane oiler.....	\$ 39.20	30.39
GROUP 2		
Lifting devices.....	\$ 44.07	30.39
Oiler.....	\$ 36.36	30.39
Truck Crane Oiler.....	\$ 38.98	30.39
GROUP 3		
Lifting devices.....	\$ 42.39	30.39
Oiler.....	\$ 36.14	30.39
Truck Crane Oiler.....	\$ 38.71	30.39
GROUP 4		
Lifting devices.....	\$ 40.62	30.39
GROUP 5		
Lifting devices.....	\$ 39.32	30.39
GROUP 6		
Lifting devices.....	\$ 37.98	30.39
OPERATOR: Power Equipment		
(Steel Erection - AREA 1:)		
GROUP 1		
Cranes.....	\$ 46.30	30.39
Oiler.....	\$ 36.63	30.39
Truck Crane Oiler.....	\$ 39.20	30.39
GROUP 2		
Cranes.....	\$ 43.79	30.39
Oiler.....	\$ 36.36	30.39
Truck Crane Oiler.....	\$ 38.98	30.39
GROUP 3		
Cranes.....	\$ 42.05	30.39
Hydraulic.....	\$ 38.32	30.39
Oiler.....	\$ 36.14	30.39
Truck Crane Oiler.....	\$ 38.71	30.39
GROUP 4		
Cranes.....	\$ 39.01	30.39
GROUP 5		
Cranes.....	\$ 35.13	30.39
OPERATOR: Power Equipment		
(Tunnel and Underground Work		

- AREA 1:)

SHAFTS, STOPES, RAISES:

GROUP 1.....	\$ 40.77	30.39
GROUP 1-A.....	\$ 43.24	30.39
GROUP 2.....	\$ 39.51	30.39
GROUP 3.....	\$ 38.18	30.39
GROUP 4.....	\$ 37.04	30.39
GROUP 5.....	\$ 35.90	30.39

UNDERGROUND:

GROUP 1.....	\$ 40.67	30.39
GROUP 1-A.....	\$ 43.14	30.39
GROUP 2.....	\$ 39.41	30.39
GROUP 3.....	\$ 38.08	30.39
GROUP 4.....	\$ 36.94	30.39
GROUP 5.....	\$ 35.80	30.39

FOOTNOTE: Work suspended by ropes or cables, or work on a Yo-Yo Cat: \$.60 per hour additional.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Operator of helicopter (when used in erection work); Hydraulic excavator, 7 cu. yds. and over; Power shovels, over 7 cu. yds.

GROUP 2: Highline cableway; Hydraulic excavator, 3-1/2 cu. yds. up to 7 cu. yds.; Licensed construction work boat operator, on site; Power blade operator (finish); Power shovels, over 1 cu. yd. up to and including 7 cu. yds. m.r.c.

GROUP 3: Asphalt milling machine; Cable backhoe; Combination backhoe and loader over 3/4 cu. yds.; Continuous flight tie back machine assistant to engineer or mechanic; Crane mounted continuous flight tie back machine, tonnage to apply; Crane mounted drill attachment, tonnage to apply; Dozer, slope brd; Gradall; Hydraulic excavator, up to 3 1/2 cu. yds.; Loader 4 cu. yds. and over; Long reach excavator; Multiple engine scraper (when used as push pull); Power shovels, up to and including 1 cu. yd.; Pre-stress wire wrapping machine; Side boom cat, 572 or larger; Track loader 4 cu. yds. and over; Wheel excavator (up to and including 750 cu. yds. per hour)

GROUP 4: Asphalt plant engineer/box person; Chicago boom; Combination backhoe and loader up to and including 3/4 cu. yd.; Concrete batch plant (wet or dry); Dozer and/or push cat; Pull- type elevating loader; Gradesetter, grade checker (GPS, mechanical or otherwise); Grooving and grinding machine; Heading shield operator; Heavy-duty drilling equipment, Hughes, LDH, Watson 3000 or similar; Heavy-duty repairperson and/or welder; Lime spreader; Loader under 4 cu. yds.; Lubrication and service engineer

(mobile and grease rack); Mechanical finishers or spreader machine (asphalt, Barber-Greene and similar); Miller Formless M-9000 slope paver or similar; Portable crushing and screening plants; Power blade support; Roller operator, asphalt; Rubber-tired scraper, self-loading (paddle-wheels, etc.); Rubber-tired earthmoving equipment (scrappers); Slip form paver (concrete); Small tractor with drag; Soil stabilizer (P & H or equal); Spider plow and spider puller; Tubex pile rig; Unlicensed construction work boat operator, on site; Timber skidder; Track loader up to 4 yds.; Tractor-drawn scraper; Tractor, compressor drill combination; Welder; Woods-Mixer (and other similar Pugmill equipment)

GROUP 5: Cast-in-place pipe laying machine; Combination slusher and motor operator; Concrete conveyor or concrete pump, truck or equipment mounted; Concrete conveyor, building site; Concrete pump or pumpcrete gun; Drilling equipment, Watson 2000, Texoma 700 or similar; Drilling and boring machinery, horizontal (not to apply to waterliners, wagon drills or jackhammers); Concrete mixer/all; Person and/or material hoist; Mechanical finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types); Mechanical burm, curb and/or curb and gutter machine, concrete or asphalt); Mine or shaft hoist; Portable crusher; Power jumbo operator (setting slip-forms, etc., in tunnels); Screed (automatic or manual); Self-propelled compactor with dozer; Tractor with boom D6 or smaller; Trenching machine, maximum digging capacity over 5 ft. depth; Vermeer T-600B rock cutter or similar

GROUP 6: Armor-Coater (or similar); Ballast jack tamper; Boom-type backfilling machine; Assistant plant engineer; Bridge and/or gantry crane; Chemical grouting machine, truck-mounted; Chip spreading machine operator; Concrete saw (self-propelled unit on streets, highways, airports and canals); Deck engineer; Drilling equipment Texoma 600, Hughes 200 Series or similar up to and including 30 ft. m.r.c.; Drill doctor; Helicopter radio operator; Hydro-hammer or similar; Line master; Skidsteer loader, Bobcat larger than 743 series or similar (with attachments); Locomotive; Lull hi-lift or similar; Oiler, truck mounted equipment; Pavement breaker, truck-mounted, with compressor combination; Paving fabric installation and/or laying machine; Pipe bending machine (pipelines only); Pipe wrapping machine (tractor propelled and supported); Screed (except asphaltic concrete paving); Self-propelled pipeline wrapping machine; Tractor; Self-loading chipper; Concrete barrier moving machine

GROUP 7: Ballast regulator; Boom truck or dual-purpose A-frame truck, non-rotating - under 15 tons; Cary lift or similar; Combination slurry mixer and/or cleaner; Drilling equipment, 20 ft. and under m.r.c.; Firetender (hot plant);

Grouting machine operator; Highline cableway signalperson; Stationary belt loader (Kolman or similar); Lift slab machine (Vagtborg and similar types); Maginnes internal full slab vibrator; Material hoist (1 drum); Mechanical trench shield; Pavement breaker with or without compressor combination); Pipe cleaning machine (tractor propelled and supported); Post driver; Roller (except asphalt); Chip Seal; Self-propelled automatically applied concrete curing machine (on streets, highways, airports and canals); Self-propelled compactor (without dozer); Signalperson; Slip-form pumps (lifting device for concrete forms); Tie spacer; Tower mobile; Trenching machine, maximum digging capacity up to and including 5 ft. depth; Truck- type loader

GROUP 8: Bit sharpener; Boiler tender; Box operator; Brakeperson; Combination mixer and compressor (shotcrete/gunite); Compressor operator; Deckhand; Fire tender; Forklift (under 20 ft.); Generator; Gunite/shotcrete equipment operator; Hydraulic monitor; Ken seal machine (or similar); Mixermobile; Oiler; Pump operator; Refrigeration plant; Reservoir-debris tug (self-propelled floating); Ross Carrier (construction site); Rotomist operator; Self-propelled tape machine; Shuttlecar; Self-propelled power sweeper operator (includes vacuum sweeper); Slusher operator; Surface heater; Switchperson; Tar pot fire tender; Tugger hoist, single drum; Vacuum cooling plant; Welding machine (powered other than by electricity)

GROUP 8-A: Elevator operator; Skidsteer loader-Bobcat 743 series or smaller, and similar (without attachments); Mini excavator under 25 H.P. (backhoe-trencher); Tub grinder wood chipper

ALL CRANES AND ATTACHMENTS

GROUP 1: Clamshell and dragline over 7 cu. yds.; Crane, over 100 tons; Derrick, over 100 tons; Derrick barge pedestal-mounted, over 100 tons; Self-propelled boom-type lifting device, over 100 tons

GROUP 2: Clamshell and dragline over 1 cu. yd. up to and including 7 cu. yds.; Crane, over 45 tons up to and including 100 tons; Derrick barge, 100 tons and under; Self-propelled boom-type lifting device, over 45 tons; Tower crane

GROUP 3: Clamshell and dragline up to and including 1 cu. yd.; Cranes 45 tons and under; Self-propelled boom-type lifting device 45 tons and under;

GROUP 4: Boom Truck or dual purpose A-frame truck,

non-rotating over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) - under 15 tons;

PILEDRIVERS

GROUP 1: Derrick barge pedestal mounted over 100 tons; Clamshell over 7 cu. yds.; Self-propelled boom-type lifting device over 100 tons; Truck crane or crawler, land or barge mounted over 100 tons

GROUP 2: Derrick barge pedestal mounted 45 tons to and including 100 tons; Clamshell up to and including 7 cu. yds.; Self-propelled boom-type lifting device over 45 tons; Truck crane or crawler, land or barge mounted, over 45 tons up to and including 100 tons; Fundex F-12 hydraulic pile rig

GROUP 3: Derrick barge pedestal mounted under 45 tons; Self-propelled boom-type lifting device 45 tons and under; Skid/scow piledriver, any tonnage; Truck crane or crawler, land or barge mounted 45 tons and under

GROUP 4: Assistant operator in lieu of assistant to engineer; Forklift, 10 tons and over; Heavy-duty repairperson/welder

GROUP 5: Deck engineer

GROUP 6: Deckhand; Fire tender

STEEL ERECTORS

GROUP 1: Crane over 100 tons; Derrick over 100 tons; Self-propelled boom-type lifting device over 100 tons

GROUP 2: Crane over 45 tons to 100 tons; Derrick under 100 tons; Self-propelled boom-type lifting device over 45 tons to 100 tons; Tower crane

GROUP 3: Crane, 45 tons and under; Self-propelled boom-type lifting device, 45 tons and under

GROUP 4: Chicago boom; Forklift, 10 tons and over; Heavy-duty repair person/welder

GROUP 5: Boom cat

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TUNNEL AND UNDERGROUND WORK

GROUP 1-A: Tunnel bore machine operator, 20' diameter or more

GROUP 1: Heading shield operator; Heavy-duty repairperson; Mucking machine (rubber tired, rail or track type); Raised bore operator (tunnels); Tunnel mole bore operator

GROUP 2: Combination slusher and motor operator; Concrete pump or pumpcrete gun; Power jumbo operator

GROUP 3: Drill doctor; Mine or shaft hoist

GROUP 4: Combination slurry mixer cleaner; Grouting Machine operator; Motorman

GROUP 5: Bit Sharpener; Brakeman; Combination mixer and compressor (gunite); Compressor operator; Oiler; Pump operator; Slusher operator

AREA DESCRIPTIONS:

POWER EQUIPMENT OPERATORS, CRANES AND ATTACHMENTS, TUNNEL AND UNDERGROUND [These areas do not apply to Piledrivers and Steel Erectors]

AREA 1: ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, TUOLUMNE

AREA 2 -NOTED BELOW

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

CALAVERAS COUNTY:

Area 1: Remainder

Area 2: Eastern Part

FRESNO COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MADERA COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MARIPOSA COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MONTEREY COUNTY:
Area 1: Remainder
Area 2: Southwestern part

TUOLUMNE COUNTY:
Area 1: Remainder
Area 2: Eastern Part

ENGI0003-008 07/01/2017

	Rates	Fringes
Dredging: (DREDGING: CLAMSHELL & DIPPER DREDGING; HYDRAULIC SUCTION DREDGING:)		
AREA 1:		
(1) Leverman.....	\$ 44.77	31.25
(2) Dredge Dozer; Heavy duty repairman.....	\$ 39.81	31.25
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	\$ 38.69	31.25
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	\$ 35.39	31.25
AREA 2:		
(1) Leverman.....	\$ 46.77	31.25
(2) Dredge Dozer; Heavy duty repairman.....	\$ 41.81	31.25
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	\$ 40.69	31.25
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	\$ 37.39	31.25

AREA DESCRIPTIONS

AREA 1: ALAMEDA,BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED,
NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN,
SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS,
SUTTER, YOLO, AND YUBA COUNTIES

AREA 2: MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2
AS NOTED BELOW:

ALPINE COUNTY:
Area 1: Northernmost part
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Remainder

Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part

Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part

Area 2: Remainder

FRESNO COUNTY:

Area 1: Remainder

Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part

Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border
with Shasta County

Area 2: Remainder

MADERA COUNTY:

Area 1: Except Eastern part

Area 2: Eastern part

MARIPOSA COUNTY

Area 1: Except Eastern part

Area 2: Eastern part

MONTERREY COUNTY

Area 1: Except Southwestern part

Area 2: Southwestern part

NEVADA COUNTY:

Area 1: All but the Northern portion along the border of
Sierra County

Area 2: Remainder

PLACER COUNTY:

Area 1: All but the Central portion

Area 2: Remainder

PLUMAS COUNTY:

Area 1: Western portion

Area 2: Remainder

SHASTA COUNTY:

Area 1: All but the Northeastern corner

Area 2: Remainder

SIERRA COUNTY:
Area 1: Western part
Area 2: Remainder

SISKIYOU COUNTY:
Area 1: Central part
Area 2: Remainder

SONOMA COUNTY:
Area 1: All but the Northwestern corner
Area 2: Remainder

TEHAMA COUNTY:
Area 1: All but the Western border with Mendocino & Trinity
Counties
Area 2: Remainder

TRINITY COUNTY:
Area 1: East Central part and the Northeastern border with
Shasta County
Area 2: Remainder

TUOLUMNE COUNTY:
Area 1: Except Eastern part
Area 2: Eastern part

ENGI0003-019 07/26/2017

SEE AREA DESCRIPTIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (LANDSCAPE WORK ONLY)		
GROUP 1		
AREA 1.....	\$ 34.05	28.73
AREA 2.....	\$ 36.05	28.73
GROUP 2		
AREA 1.....	\$ 30.45	28.73
AREA 2.....	\$ 32.45	28.73
GROUP 3		
AREA 1.....	\$ 25.84	28.73
AREA 2.....	\$ 27.84	28.73

GROUP DESCRIPTIONS:

GROUP 1: Landscape Finish Grade Operator: All finish grade work regardless of equipment used, and all equipment with a rating more than 65 HP.

GROUP 2: Landscape Operator up to 65 HP: All equipment with a manufacturer's rating of 65 HP or less except equipment

covered by Group 1 or Group 3. The following equipment shall be included except when used for finish work as long as manufacturer's rating is 65 HP or less: A-Frame and Winch Truck, Backhoe, Forklift, Hydragraphic Seeder Machine, Roller, Rubber-Tired and Track Earthmoving Equipment, Skiploader, Straw Blowers, and Trencher 31 HP up to 65 HP.

GROUP 3: Landscae Utility Operator: Small Rubber-Tired Tractor, Trencher Under 31 HP.

AREA DESCRIPTIONS:

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED, NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS, SUTTER, YOLO, AND YUBA COUNTIES

AREA 2 - MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

ALPINE COUNTY:

Area 1: Northernmost part
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Except Eastern part
Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part
Area 2: Remainder

DEL NORTE COUNTY:

Area 1: Extreme Southwestern corner
Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part
Area 2: Remainder

FRESNO COUNTY

Area 1: Except Eastern part
Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part
Area 2: Remainder

HUMBOLDT COUNTY:

Area 1: Except Eastern and Southwestern parts
Area 2: Remainder

LAKE COUNTY:

Area 1: Southern part

Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border
with Shasta County

Area 2: Remainder

MADERA COUNTY

Area 1: Remainder

Area 2: Eastern part

MARIPOSA COUNTY

Area 1: Remainder

Area 2: Eastern part

MENDOCINO COUNTY:

Area 1: Central and Southeastern parts

Area 2: Remainder

MONTEREY COUNTY

Area 1: Remainder

Area 2: Southwestern part

NEVADA COUNTY:

Area 1: All but the Northern portion along the border of
Sierra County

Area 2: Remainder

PLACER COUNTY:

Area 1: All but the Central portion

Area 2: Remainder

PLUMAS COUNTY:

Area 1: Western portion

Area 2: Remainder

SHASTA COUNTY:

Area 1: All but the Northeastern corner

Area 2: Remainder

SIERRA COUNTY:

Area 1: Western part

Area 2: Remainder

SISKIYOU COUNTY:

Area 1: Central part

Area 2: Remainder

SONOMA COUNTY:

Area 1: All but the Northwestern corner

Area 2: Reaminder

TEHAMA COUNTY:

- Area 1: All but the Western border with mendocino & Trinity Counties
- Area 2: Remainder

TRINITY COUNTY:

- Area 1: East Central part and the Northeaster border with Shasta County
- Area 2: Remainder

TULARE COUNTY;

- Area 1: Remainder
- Area 2: Eastern part

TUOLUMNE COUNTY:

- Area 1: Remainder
- Area 2: Eastern Part

* IRON0377-002 07/01/2019

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 33.58	24.66
Ornamental, Reinforcing and Structural.....	\$ 40.00	33.30

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0067-002 07/01/2019

AREA ""A"" - ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND
SANTA CLARA COUNTIES

AREA ""B"" - CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA,
MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, STANISLAUS, AND
TUOLUMNE COUNTIES

	Rates	Fringes
Asbestos Removal Laborer		
All Counties.....	\$ 24.00	11.30
LABORER (Lead Removal)		
Area A.....	\$ 31.81	24.61
Area B.....	\$ 30.81	24.61

ASBESTOS REMOVAL-SCOPE OF WORK: Site mobilization; initial
site clean-up; site preparation; removal of
asbestos-containing materials from walls and ceilings; or
from pipes, boilers and mechanical systems only if they are
being scrapped; encapsulation, enclosure and disposal of
asbestos-containing materials by hand or with equipment or
machinery; scaffolding; fabrication of temporary wooden
barriers; and assembly of decontamination stations.

LABO0073-002 06/25/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I....	\$ 29.84	23.65
Traffic Control Person II...	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash
cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of
temporary/permanent signs, markers, delineators and crash
cushions.

LABO0073-003 07/01/2018

SAN JOAQUIN COUNTY

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 31.20	22.20

LABO0073-005 06/25/2018

Rates Fringes

Tunnel and Shaft Laborers:

GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0073-007 06/25/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

Rates Fringes

LABORER (CONSTRUCTION CRAFT
LABORERS)

Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20

GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULTURAL & LANDSCAPE
LABORERS)

(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty Period.....	\$ 23.23	23.20

LABORER (GUNITE)

GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31

LABORER (WRECKING)

GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying,

dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of

excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0073-009 07/01/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0261-003 06/25/2018

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 20.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0261-005 06/25/2018

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11

GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0261-009 06/25/2018

SAN FRANCISCO, AND SAN MATEO COUNTIES

Rates	Fringes
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LABORER (CONSTRUCTION CRAFT

LABORERS - AREA A:)

Construction Specialist

Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 31.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,

HORTICULTURAL & LANDSCAPE

LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty		
Period.....	\$ 24.23	23.20
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20
Laborers: (GUNITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond drill; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buck; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and

electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0261-011 05/01/2018

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
MASON TENDER, BRICK.....	\$ 35.37	20.70

FOOTNOTES: Underground work such as sewers, manholes, catch basins, sewer pipes, telephone conduits, tunnels and cut trenches: \$5.00 per day additional. Work in live sewage: \$2.50 per day additional.

LABO0261-014 07/01/2017

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
PLASTER TENDER.....	\$ 34.70	23.11

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0270-003 06/25/2018

AREA A: SANTA CLARA

AREA B: MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person		
Area A.....	\$ 30.54	23.65
Area B.....	\$ 29.54	23.65
Traffic Control Person I		
Area A.....	\$ 30.84	23.65
Area B.....	\$ 29.84	23.65
Traffic Control Person II		
Area A.....	\$ 28.34	23.65
Area B.....	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0270-004 06/25/2018

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0270-005 07/01/2018

MONTEREY AND SAN BENITO COUNTIES

	Rates	Fringes
LABORER		

Mason Tender-Brick.....\$ 31.20 22.20

LABO0270-007 06/25/2018

MONTEREY, SAN BENITO, AND SANTA CRUZ, COUNTIES

Rates Fringes

LABORER (CONSTRUCTION CRAFT

LABORERS - AREA B)

Construction Specialist

Group.....\$ 30.40 23.20

GROUP 1.....\$ 29.79 23.20

GROUP 1-a.....\$ 30.01 23.20

GROUP 1-c.....\$ 29.84 23.20

GROUP 1-e.....\$ 30.34 23.20

GROUP 1-f.....\$ 30.37 23.20

GROUP 2.....\$ 29.64 23.20

GROUP 3.....\$ 29.54 23.20

GROUP 4.....\$ 23.23 23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,

HORTICULTURAL & LANDSCAPE

LABORERS - AREA B)

(1) New Construction.....\$ 29.54 23.20

(2) Establishment Warranty

Period.....\$ 23.23 23.20

LABORER (GUNITE - AREA B)

GROUP 1.....\$ 29.75 22.31

GROUP 2.....\$ 29.25 22.31

GROUP 3.....\$ 28.66 22.31

GROUP 4.....\$ 28.54 22.31

LABORER (WRECKING - AREA B)

GROUP 1.....\$ 29.79 23.20

GROUP 2.....\$ 29.64 23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond drill; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be

salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

- GROUP 1: Structural Nozzleman
- GROUP 2: Nozzleman, Gunman, Potman, Groundman
- GROUP 3: Reboundman
- GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

- GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)
- GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0270-010 06/25/2018

SANTA CLARA COUNTY

Rates Fringes

LABORER (CONSTRUCTION CRAFT
LABORERS - AREA A:)

Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULTURAL & LANDSCAPE
LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
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(2) Establishment Warranty		
Period.....	\$ 24.23	23.20
LABORER (GUNITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types

(except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry

cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash,

windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0270-011 07/01/2017

MONTEREY, SAN BENITO, SANTA CRUZ, SANTA CLARA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 34.70	21.22

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0294-001 07/01/2018

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
LABORER (Brick)		
Mason Tender-Brick.....	\$ 31.20	22.20

LABO0294-002 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I....	\$ 29.84	23.65
Traffic Control Person II...	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0294-005 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11

GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0294-008 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

Rates	Fringes
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LABORER (CONSTRUCTION CRAFT

LABORERS - AREA B:)

Construction Specialist

Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,

HORTICULTURAL & LANDSCAPE

LABORERS - AREA B:)

(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond drill; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buck; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and

electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0294-010 07/01/2018

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender.....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0294-011 07/01/2017

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 31.02	22.52

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0304-002 06/25/2018

ALAMEDA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 30.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0304-003 06/26/2017

ALAMEDA COUNTY

Rates	Fringes
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Tunnel and Shaft Laborers:

GROUP 1.....	\$ 36.60	24.83
GROUP 2.....	\$ 36.37	24.83
GROUP 3.....	\$ 36.12	24.83
GROUP 4.....	\$ 35.67	24.83
GROUP 5.....	\$ 35.13	24.83
Shotcrete Specialist.....	\$ 37.12	24.83

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0304-004 06/25/2018

ALAMEDA COUNTY

	Rates	Fringes
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LABORER (CONSTRUCTION CRAFT

LABORERS - AREA A:)

Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULTURAL & LANDSCAPE
LABORERS - AREA A:)

(1) New Construction.....\$ 30.54 23.20

(2) Establishment Warranty

Period.....\$ 24.23 23.20

LABORER (GUNITE - AREA A:)

GROUP 1.....\$ 30.75 22.31

GROUP 2.....\$ 30.25 22.31

GROUP 3.....\$ 29.66 22.31

GROUP 4.....\$ 29.54 22.31

LABORER (WRECKING - AREA A:)

GROUP 1.....\$ 30.79 23.20

GROUP 2.....\$ 30.64 23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging
scaffolds, belts shall receive \$0.25 per hour above the
applicable wage rate. This shall not apply to workers
entitled to receive the wage rate set forth in Group 1-a
below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker;
Chainsaw; Laser beam in connection with laborers' work;
Cast-in- place manhole form setter; Pressure pipelayer;
Davis trencher - 300 or similar type (and all small
trenchers); Blaster; Diamond driller; Multiple unit drill;
Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker
and similar type tampers; Buggymobile; Caulker, bander,
pipewrapper, conduit layer, plastic pipelayer; Certified
hazardous waste worker including Leade Abatement;
Compactors of all types; Concrete and magnesite mixer, 1/2
yd. and under; Concrete pan work; Concrete sander; Concrete
saw; Cribber and/or shoring; Cut granite curb setter;
Dri-pak-it machine; Faller, logloader and buckler; Form
raiser, slip forms; Green cutter; Headerboard, Hubsetter,
aligner, by any method; High pressure blow pipe (1-1/2" or
over, 100 lbs. pressure/over); Hydro seeder and similar
type; Jackhammer operator; Jacking of pipe over 12 inches;
Jackson and similar type compactor; Kettle tender, pot and
worker applying asphalt, lay-kold, creosote, lime, caustic
and similar type materials (applying means applying,
dipping or handling of such materials); Lagging, sheeting,
whaling, bracing, trenchjacking, lagging hammer; Magnesite,
epoxyresin, fiberglass, mastic worker (wet or dry); No
joint pipe and stripping of same, including repair of

voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0304-005 05/01/2018

ALAMEDA COUNTY

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

LABO0304-008 07/01/2017

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 34.70	23.11

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO0324-002 06/25/2018

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 30.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

CONTRA COSTA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20

GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 1-g.....	\$ 30.99	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULURAL & LANDSCAPE
LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20

LABORER (GUNITE - AREA A:)

GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

LABORER (WRECKING - AREA A:)

GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and

worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing

is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

LABO0324-014 05/01/2018

CONTRA COSTA COUNTY:

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

LABO0324-018 07/01/2018

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 37.14	22.32

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO1130-002 06/25/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I....	\$ 29.84	23.65
Traffic Control Person II...	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO1130-003 06/26/2017

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 36.60	24.83
GROUP 2.....	\$ 36.37	24.83
GROUP 3.....	\$ 36.12	24.83
GROUP 4.....	\$ 35.67	24.83
GROUP 5.....	\$ 35.13	24.83
Shotcrete Specialist.....	\$ 37.12	24.83

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO1130-005 07/01/2018

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
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LABORER

Mason Tender-Brick.....	\$ 31.20	22.20
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LABO1130-007 06/25/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE , COUNTIES

	Rates	Fringes
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LABORER (CONSTRUCTION CRAFT

LABORERS - AREA B:)

Construction Specialist

Group.....	\$ 30.49	23.20
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GROUP 1.....	\$ 29.79	23.20
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GROUP 1-a.....	\$ 30.01	23.20
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GROUP 1-c.....	\$ 29.84	23.20
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GROUP 1-e.....	\$ 30.34	23.20
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GROUP 1-f.....	\$ 29.37	23.20
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GROUP 2.....	\$ 29.64	23.20
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GROUP 3.....	\$ 29.54	23.20
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GROUP 4.....	\$ 23.23	23.20
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See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,

HORTICULTURAL & LANDSCAPE

LABORERS - AREA B:)

(1) New Construction.....	\$ 29.54	23.20
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(2) Establishment Warranty

Period.....	\$ 23.23	23.20
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LABORER (GUNITE - AREA B:)

GROUP 1.....	\$ 29.75	22.31
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GROUP 2.....	\$ 29.25	22.31
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GROUP 3.....	\$ 28.66	22.31
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GROUP 4.....	\$ 28.54	22.31
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LABORER (WRECKING - AREA B:)

GROUP 1.....	\$ 29.79	23.20
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GROUP 2.....	\$ 29.64	23.20
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FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the

applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of

type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general

laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO1130-008 07/01/2018

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

Rates Fringes

Plasterer tender.....\$ 32.02 23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

LABO1130-009 07/01/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

PAIN0016-001 01/01/2019

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN MATEO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Painters:.....	\$ 42.67	24.03

PREMIUMS:

EXOTIC MATERIALS - \$0.75 additional per hour.
SPRAY WORK: - \$0.50 additional per hour.
INDUSTRIAL PAINTING - \$0.25 additional per hour
[Work on industrial buildings used for the manufacture and processing of goods for sale or service; steel construction (bridges), stacks, towers, tanks, and similar structures]

HIGH WORK:
over 50 feet - \$2.00 per hour additional
100 to 180 feet - \$4.00 per hour additional
Over 180 feet - \$6.00 per hour additional

PAIN0016-003 01/01/2018

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

AREA 2: CALAVERAS, MARIPOA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
Drywall Finisher/Taper		
AREA 1.....	\$ 45.16	26.74
AREA 2.....	\$ 41.03	25.34

PAIN0016-012 01/01/2019

ALAMEDA, CONTRA COSTA, MARIPOSA, MERCED, MONTEREY, SAN BENITO,
SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 48.60	27.43

PAIN0016-015 01/01/2019

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE
COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 33.68	20.24

FOOTNOTES:
SPRAY/SANDBLAST: \$0.50 additional per hour.
EXOTIC MATERIALS: \$1.00 additional per hour.
HIGH TIME: Over 50 ft above ground or water level \$2.00
additional per hour. 100 to 180 ft above ground or water
level \$4.00 additional per hour. Over 180 ft above ground
or water level \$6.00 additional per hour.

PAIN0016-022 01/01/2019

SAN FRANCISCO COUNTY

	Rates	Fringes
PAINTER.....	\$ 46.29	24.03

PAIN0169-001 01/01/2018

FRESNO, KINGS, MADERA, MARIPOSA AND MERCED COUNTIES:

	Rates	Fringes
GLAZIER.....	\$ 35.00	26.26

PAIN0169-005 01/01/2019

ALAMEDA CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN
MATEO, SANTA CLARA & SANTA CRUZ COUNTIES

	Rates	Fringes
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GLAZIER.....	\$ 50.03	28.19
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PAIN0294-004 01/01/2019

FRESNO, KINGS AND MADERA COUNTIES

Rates	Fringes
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PAINTER

Brush, Roller.....	\$ 30.53	19.11
Drywall Finisher/Taper.....	\$ 34.87	23.68

FOOTNOTE:

Spray Painters & Paperhangers recive \$1.00 additional per hour. Painters doing Drywall Patching receive \$1.25 additional per hour. Lead Abaters & Sandblasters receive \$1.50 additional per hour. High Time - over 30 feet (does not include work from a lift) \$0.75 per hour additional.

PAIN0294-005 01/01/2018

FRESNO, KINGS & MADERA

Rates	Fringes
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SOFT FLOOR LAYER.....	\$ 31.49	20.48
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PAIN0767-001 01/01/2019

CALAVERAS, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

Rates	Fringes
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GLAZIER.....	\$ 38.47	28.40
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PAID HOLIDAYS: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

Employee rquired to wear a body harness shall receive \$1.50 per hour above the basic hourly rate at any elevation.

PAIN1176-001 01/01/2017

HIGHWAY IMPROVEMENT

Rates	Fringes
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Parking Lot Striping/Highway

Marking:

GROUP 1.....	\$ 34.41	16.31
GROUP 2.....	\$ 29.25	16.31

GROUP 3.....\$ 29.59 16.31

CLASSIFICATIONS

GROUP 1: Striper: Layout and application of painted traffic stripes and marking; hot thermo plastic; tape, traffic stripes and markings

GROUP 2: Gamecourt & Playground Installer

GROUP 3: Protective Coating, Pavement Sealing

PAIN1237-003 10/01/2018

CALAVERAS; SAN JOAQUIN COUNTIES; STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
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SOFT FLOOR LAYER.....	\$ 36.81	21.51
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* PLAS0066-002 07/01/2019

ALAMEDA, CONTRA COSTA, SAN MATEO AND SAN FRANCISCO COUNTIES:

	Rates	Fringes
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PLASTERER.....	\$ 42.41	30.73
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PLAS0300-001 07/01/2018

	Rates	Fringes
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PLASTERER

AREA 188: Fresno.....	\$ 32.70	31.68
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AREA 224: San Benito, Santa Clara, Santa Cruz.....	\$ 32.88	31.68
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AREA 295: Calaveras & San Joaquin Couonties.....	\$ 32.70	31.68
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AREA 337: Monterey County..	\$ 32.88	31.68
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AREA 429: Mariposa, Merced, Stanislaus, Tuolumne Counties.....	\$ 32.70	31.68
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PLAS0300-005 07/01/2017

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER...	\$ 33.49	23.67
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* PLUM0038-001 07/01/2019

SAN FRANCISCO COUNTY

	Rates	Fringes
PLUMBER (Plumber, Steamfitter, Refrigeration Fitter).....	\$ 74.16	43.59

* PLUM0038-005 07/01/2019		

SAN FRANCISCO COUNTY

	Rates	Fringes
Landscape/Irrigation Fitter (Underground/Utility Fitter).....	\$ 63.04	31.48

PLUM0062-001 07/01/2019		

MONTEREY AND SANTA CRUZ COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 43.80	34.19

PLUM0159-001 07/01/2019		

CONTRA COSTA COUNTY

	Rates	Fringes
Plumber and steamfitter		
(1) Refrigeration.....	\$ 56.93	41.04
(2) All other work.....	\$ 57.82	41.04

PLUM0246-001 07/01/2019		

FRESNO, KINGS & MADERA COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 41.15	33.14

PLUM0246-004 01/01/2017		

FRESNO, MERCED & SAN JOAQUIN COUNIES

	Rates	Fringes
PLUMBER (PIPE TRADESMAN).....	\$ 13.00	10.74
PIPE TRADESMAN SCOPE OF WORK:		
Installation of corrugated metal piping for drainage, as well		
as installation of corrugated metal piping for culverts in		

connection with storm sewers and drains; Grouting, dry packing and diapering of joints, holes or chases including paving over joints, in piping; Temporary piping for dirt work for building site preparation; Operating jack hammers, pavement breakers, chipping guns, concrete saws and spades to cut holes, chases and channels for piping systems; Digging, grading, backfilling and ground preparation for all types of pipe to all points of the jobsite; Ground preparation including ground leveling, layout and planting of shrubbery, trees and ground cover, including watering, mowing, edging, pruning and fertilizing, the breaking of concrete, digging, backfilling and tamping for the preparation and completion of all work in connection with lawn sprinkler and landscaping; Loading, unloading and distributing materials at jobsite; Putting away materials in storage bins in jobsite secure storage area; Demolition of piping and fixtures for remodeling and additions; Setting up and tearing down work benches, ladders and job shacks; Clean-up and sweeping of jobsite; Pipe wrapping and waterproofing where tar or similar material is applied for protection of buried piping; Flagman

PLUM0342-001 07/01/2018

ALAMEDA & CONTRA COSTA COUNTIES

	Rates	Fringes
PIPEFITTER		
CONTRA COSTA COUNTY.....	\$ 58.68	42.40
PLUMBER, PIPEFITTER, STEAMFITTER		
ALAMEDA COUNTY.....	\$ 58.68	42.40

PLUM0355-004 07/01/2019

ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, AND TUOLUMNE COUNTIES:

	Rates	Fringes
Underground Utility Worker		
/Landscape Fitter.....	\$ 29.00	15.80

* PLUM0393-001 07/01/2019

SAN BENITO AND SANTA CLARA COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 63.91	42.68

PLUM0442-001 07/01/2019

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE
COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 43.50	30.89

* PLUM0467-001 07/01/2019

SAN MATEO COUNTY

	Rates	Fringes
Plumber/Pipefitter/Steamfitter...	\$ 67.61	36.50

ROOF0027-002 01/01/2019

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ROOFER.....	\$ 28.21	14.21

FOOTNOTE: Work with pitch, pitch base or pitch impregnated products or any material containing coal tar pitch, on any building old or new, where both asphalt and pitchers are used in the application of a built-up roof or tear off: \$2.00 per hour additional.

ROOF0040-002 08/01/2019

SAN FRANCISCO & SAN MATEO COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 41.88	19.44

* ROOF0081-001 08/01/2019

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Roofer.....	\$ 40.10	18.88

* ROOF0081-004 08/01/2019

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND
TUOLUMNE COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 38.28	18.56

* ROOF0095-002 08/01/2019

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES:

	Rates	Fringes
ROOFER		
Journeyman.....	\$ 44.49	19.49
Kettle person (2 kettles); Bitumastic, Enameler, Coal Tar, Pitch and Mastic worker.....	\$ 46.49	19.49

* SFCA0483-001 07/29/2019

ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTIES:

	Rates	Fringes
SPRINKLER FITTER (FIRE).....	\$ 65.52	32.67

* SFCA0669-011 04/01/2019

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SPRINKLER FITTER.....	\$ 38.85	23.85

SHEE0104-001 07/02/2018

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO, SANTA CLARA

AREA 2: MONTEREY & SAN BENITO

AREA 3: SANTA CRUZ

	Rates	Fringes
SHEET METAL WORKER		
AREA 1:		

Mechanical Contracts		
under \$200,000.....	\$ 51.87	37.91
All Other Work.....	\$ 59.11	38.51
AREA 2.....	\$ 48.90	32.70
AREA 3.....	\$ 51.21	30.26

SHEE0104-003 07/01/2018

CALAVERAS AND SAN JOAQUIN COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 40.34	32.80

SHEE0104-005 07/01/2018

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Excluding metal deck and siding).....	\$ 38.40	35.69

SHEE0104-007 07/01/2018

FRESNO, KINGS, AND MADERA COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 38.49	35.65

SHEE0104-015 07/01/2017

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Metal Decking and Siding only).....	\$ 37.53	32.10

SHEE0104-018 07/01/2018

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
Sheet metal worker (Metal decking and siding only).....	\$ 39.93	32.70

TEAM0094-001 07/01/2018

Rates Fringes

Truck drivers:

GROUP 1.....	\$ 31.68	27.86
GROUP 2.....	\$ 31.98	27.86
GROUP 3.....	\$ 32.28	27.86
GROUP 4.....	\$ 32.63	27.86
GROUP 5.....	\$ 32.98	27.86

FOOTNOTES:

Articulated dump truck; Bulk cement spreader (with or without auger); Dumpcrete truck; Skid truck (debris box); Dry pre-batch concrete mix trucks; Dumpster or similar type; Slurry truck: Use dump truck yardage rate.
Heater planer; Asphalt burner; Scarifier burner; Industrial lift truck (mechanical tailgate); Utility and clean-up truck: Use appropriate rate for the power unit or the equipment utilized.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Dump trucks, under 6 yds.; Single unit flat rack (2-axle unit); Nipper truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump machine; Fork lift and lift jitneys; Fuel and/or grease truck driver or fuel person; Snow buggy; Steam cleaning; Bus or personhaul driver; Escort or pilot car driver; Pickup truck; Teamster oiler/greaser and/or serviceperson; Hook tender (including loading and unloading); Team driver; Tool room attendant (refineries)

GROUP 2: Dump trucks, 6 yds. and under 8 yds.; Transit mixers, through 10 yds.; Water trucks, under 7,000 gals.; Jetting trucks, under 7,000 gals.; Single-unit flat rack (3-axle unit); Highbed heavy duty transport; Scissor truck; Rubber-tired muck car (not self-loaded); Rubber-tired truck jumbo; Winch truck and "A" frame drivers; Combination winch truck with hoist; Road oil truck or bootperson; Buggymobile; Ross, Hyster and similar straddle carriers; Small rubber-tired tractor

GROUP 3: Dump trucks, 8 yds. and including 24 yds.; Transit mixers, over 10 yds.; Water trucks, 7,000 gals. and over; Jetting trucks, 7,000 gals. and over; Vacuum trucks under 7500 gals. Trucks towing tilt bed or flat bed pull trailers; Lowbed heavy duty transport; Heavy duty transport tiller person; Self-propelled street sweeper with self-contained refuse bin; Boom truck - hydro-lift or Swedish type extension or retracting crane; P.B. or similar type self-loading truck; Tire repairperson; Combination bootperson and road oiler; Dry distribution truck (A

bootperson when employed on such equipment, shall receive the rate specified for the classification of road oil trucks or bootperson); Ammonia nitrate distributor, driver and mixer; Snow Go and/or plow

GROUP 4: Dump trucks, over 25 yds. and under 65 yds.; Water pulls - DW 10's, 20's, 21's and other similar equipment when pulling Aqua/pak or water tank trailers; Helicopter pilots (when transporting men and materials); Lowbedk Heavy Duty Transport up to including 7 axles; DW10's, 20's, 21's and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers; Vacuum Trucks 7500 gals and over and truck repairman

GROUP 5: Dump trucks, 65 yds. and over; Holland hauler; Low bed Heavy Duty Transport over 7 axles

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification

and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010

08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

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